MANOOMIN (WILD-RICE OR *ZIZANIA* SPP.): A TWO CASE STUDY AMONG THE MENOMINEE AND OJIBWE NATIONS IN WISCONSIN – A STUDY INTEGRATING TEK AND ECOLOGICAL DEGRADATION

by

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DEDICATION

Gratitude and thanks go to my adoptive parents, John and Gladys Peterson, for providing moral support as I spent many years working, traveling and writing this dissertation. For my Menominee grandparents, Frank and Elizabeth Wayka, I thank you both for teaching and guiding me to learn the importance of gathering and harvesting our plants and food in order to sustain ourselves on the Menominee reservation. For my birth mother and father, thank you both for showing me the art of trailblazing, that you, Dad, were way ahead of your time in the 1970's. Matthew, you achieved it all at a young age and devoted everything to us. I thank the Wolf River for many years of swimming and nurturing my mind, body and soul. More importantly, I thank my children and the Peterson family for so much love and support throughout the years.

For late elders Joe Rose, Sr., (Bad River Ojibwe) and Mike Hoffman (Menominee), I thank you for sharing your traditional knowledge while taking the time away from the harvesting season to interview with me and talk about important issues impacting wild- rice and the reservations. Joe Rose, Sr., discussed at great length within a 10-page single spaced interview, the many issues facing wild- rice and ways to protect it. Mike Hoffman had a gentle way of sharing stories. After the interview, Mike and his wife Karen Hoffman, provided a luncheon afterwards which was a recipe that he created containing wild-rice. As a traditional researcher, it was an honor to have met with elders from the Bad River and Menominee Nations and to understand on a spiritual level the importance of the sovereignty of wild-rice.

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ABSTRACT

Wild-rice continues to decrease within the State of Wisconsin, USA. Conservation efforts from tribal, state and federal agencies are addressing the urgency to replenish and rejuvenate a natural resource that serves as a priority for food sovereignty for tribal nations. Wild-rice, or Manoomin, exists throughout Wisconsin extending from Lake Superior in the north, to Lake Michigan in the east, and the shores of the Mississippi River in the west. This vital resource remains in jeopardy due to increased recreation on lakes, phosphorus run off from farms, the introduction of invasive species, potential mining threats and climate change. Despite these threats, two Indigenous nations in Wisconsin, the Menominee and the Ojibway, have worked to preserve wild-rice through longstanding, traditional Indigenous land practices. Methods of self-governance – securing their rights to hunt, fish, and gather on their traditional homelands are critical to these preservation strategies. This project utilizes Ethnobotany as the background of the relationship between plants and people by scientifically analyzing the traditional ecological knowledge (TEK), via personal narrative, as a method utilizing interviews with elders and community members of the Menominee and Ojibway. The results identified key management styles implemented to address important concerns about wild-rice. In highlighting the cultural importance of wild-rice, such as in traditional stories, the elders expressed that the disappearance of wild-rice was emblematic of a larger threat to their cultural identity and traditions. Reestablishing wild-rice beds reinforces food sovereignty for both the Menominee and Ojibwe Nations by allowing wild-rice to remain as an independent, sovereign being.

TABLE OF CONTENTS

DEDICATION…………………………………………………………………………..i

ACKNOWLEGEMENTS……………………………………………………………………ii

ABSTRACT………………………………………………………………………....iii

TABLE OF CONTENTS……………………………………………………………....iv

LIST OF TABLES…………………………………………………………………..ix

LIST OF FIGURES……………………………………………………………………x

LIST OF PICTURES………………………………………………………………..xi

LIST OF ABBREVIATIONS…………………………………………………………xii

GLOSSARY OF TERMS……………………………………………………………….xiii

A BEGINNING TO AN ETHNOBOTANICAL WAY OF LIFE…………………………...1

CHAPTER ONE: SOVEREIGNTY AND HISTORY OF WILD-RICE……………………4

Defining Sovereignty……………………………………………………………...4

History of Wild-Rice……………………………………………………...4

Wild-Rice Genus…………………………………………………………5

Wild-Rice Harvesting……………………………………………………….6

Wild-Rice Cultural Significance…………………………………………………9

Ojibwe………………………………………………………………...10

Menominee…………………………………………………………………12

Revitalization of Wild-Rice……………………………………….……..12

LAKE POYGAN SOIL SAMPLING ADVENTURE………………………………………..15

CHAPTER TWO: METHODS AND METHODOLOGY…………………………………...17

Wild-Rice Interviews and Methods Section………………………………..............17

Research Goals and Hypotheses……………………………………………19

Qualitative Research: Interview Questions with the Elders…………………..20

An Example of Coding……………………………………………………..21

Remaining Areas of Research………………………………………………...22

A DAY HARVESTING WILD-RICE……………………………………… ……….......24

CHAPTER THREE: SELF-GOVERNANCE AND SUSTAINABILITY………………...…26

Significance of Wild-Rice to Tribal Peoples and Culture…………………………….26

Cultural Background of Wild-Rice…………………………………………...27

Cultural Significance of Wild-Rice…………………………………………...30

Relationship Between Science and Traditional Ecological Knowledge……...32

Introduction to Wild-Rice Threats……………………………………………32

Issues Facing Wild-Rice……………………………………………………...32

Mines that Threaten Wild-Rice……………………………………………….34

Statement of the Significance of the Research Problem……………………...35

Ecological Significance……………………………………………………35

Keystone Species and Threats………………………………………………..36

Consequences of Losing It…………………………………………………...37

CHAPTER FOUR: ECOLOGICAL AND QUALITATIVE INDICATORS OF WILD-RICE

Red Wing Blackbird……………………………………………………………41

Muskrat……………………………………………………………………43

Fish ……………………………………………………………………….43

Yellow Perch ……………………………………………………….......43

Bass-Trout-Whitefish…………………………………………………......44

Changing Landscape……………………………………………………...45

CHAPTER FIVE: A WILD-RICE INTERVIEW ANALYSIS AND RESULTS…………..51

Research Methods…………………………………………………………...51

Ancestral Ties ……………………………………………………………54

Bartering…………………………………………………………………….55

Changing Landscape……………………………………………………..55

Water Movement and Invasive Species…………………………………….57

Interdependence and Connectedness…………………………………...…..58

Wild-Rice as Community-Based……………………………………...…59

Ceremony……………………………………………………………….....60

Cultural Preservation…………………………………………….……..60

Extractive Industries as Threats (Mining and Industrial Agriculture)…..…61

Family Traditions………………………………………………….…63

Feasts………………………………………………………………..……..64

Identity……………………………………………………………….65

Origin Story…………………………………………………………66

Wild-Rice as Commodity and Community-Based……………….......69

Wild-Rice as Gifting………………………………………………...69

Wild-Rice as Process……………………………………………..70

Wild-Rice as a Relative………………………………………......72

Wild-Rice as Sacred…………………………………………........73

Wild-Rice as School/Youth Harvest……………………………..73

Wild-Rice as Sovereign………………………………………......74

MEMORABLE INTERVIEWS WITH ELDERS……………………….…76

CHAPTER SIX: MANOOMINIKE GIIZIIS: WILD-RICE MOON………….....…....77

Significance of Wild-Rice to Tribal Peoples and Culture………………….…..77

CHAPTER SEVEN: PILOT STUDY FOR ECOCULTURAL RESTORATION OF WILD-RICE IN HO-NEE-UM POND AT LAKE WINGRA, MADISON, WISCONSIN……………82

Lake Wingra and Ho Nee Um Pond Pilot Study………………………………82

Ho Nee Um Pond…………………………………………...............83

Restoration……………………………………….........................86

Planting Method (Justification) ……………………….........................88

Analyses (1% Germinated) ……………………….............................89

REFERENCES……………………………………………………………………….91
APPENDIX……………………………………………………………………..…96

LIST OF TABLES

Table 4.1 Wild-Rice Interviewee, Tribal Nation and Date of Interview……………………….21
Table 7.1 GPS Coordinate Data……………………………………………………….…….83
Table 7.2 GPS Coordinate Data……………………………………………………..………84

LIST OF FIGURES

Figure 1 Wild Rice Microcosm……………………………………………………………47
Figure 2 Wild-Rice Phylogeny Tree Ecological Microcosm…….……………………..….54

LIST OF PICTURES

Picture 1. Manoomin (Wild-Rice) Indicators……………………………………………42

LIST OF ABBREVIATIONS

UW	University of Wisconsin-Madison
GS	Graduate School
TEK	Traditional Ecological Knowledge

GLOSSARY OF TERMS

Bartering: *bartering occurs when a person has items that another person wants in trade for a similar object for a similar price without using money to trade.*

Ethnobotanical: *a way of studying the relationship between indigenous plants and people and the many uses of the plant.*

Plant Sovereignty: *the right of a plant to stand within its own area within the environment.*

Ecological Indicator: *an organism that gives us data about an ecosystem, such as its biodiversity. We use ecological indicators to gain information about ecosystems and our impact on those ecosystems. (Quote from MarketBusinessNews, accessed June 2024)*

Seed Sovereignty: *seed sovereignty is based upon individual seed ownership versus seeds from agricultural and corporations.*

Sovereignty: *Autonomy of place and area in order to gain complete authority.*

Traditional Ecological Knowledge: *traditional ecological knowledge is intertwining key data sets of the science perspective with a cultural value-based belief system that blends common specifics into an assessment goal of common understanding.*

Note: Each chapter of this dissertation is preceded by a brief autobiographical vignette, which puts the research into context of my personal history and values.

A Beginning to an Ethnobotanical Way of Life

Envision 250,000 acres as your backyard, and the world was truly an oyster waiting to be discovered. I remember vividly watching my Grandpa Frank Wayka and Grandma Elizabeth Wayka smudge and bake homemade biscuits respectively. Grandpa used to play peek a boo with me before he went hunting and gathering so that I would know that he was nearby. Each morning, grandma would welcome my help while baking, asking me to pass the flour and sugar. She would take her time molding the dough in her hand, shaping it into round balls to place it in the muffin tin. I would wait anxiously for the moment when she took the fresh biscuits from the oven. Watching my grandmother make the dough was a blessing.

I would take the time to send blessings to the Wolf River as it was right down the road, past the railroad bridge and hidden in a small dusty lot. A small raft was in the middle of the river so we could swim out to it. Each week in the spring and summer, my parents would have my brother and sisters stay with Grandma and Grandpa on the Menominee reservation. Grandpa always held my hand and guided me to the plants in the woods.

As a young child, I had the opportunity to swim daily in the mighty Wolf River. I would put on my swimsuit, grab my towel, and head to the small dock. I would skip down the road alone, and at the age of 4 and 5, I knew who would be there. Family, cousins and elders. Walking past the small gravel road and under the railroad bridge, I would find myself skipping with joy to greet those mighty waters. I was young, and there were always older kids there to watch over me as I would gently walk into the small stream right next to the Menominee Tribal Enterprise building. As a young child, I never knew that across the river, logs were converted to long boards to be sold to stores for tables and chairs. I was unaware that the forest that provided shelter was harvested 3 times over, as was a significant economic factor for the tribal people.

The Menominee people continue to thrive in a heavily wooded forest. The Menominee people took care of the waters, and the trees that provided sustenance to the families on the reservation. Mother Earth always knew how to defend and take care of herself. I vividly remember holding my grandpa's hand and walking through the vast woods and listening to him speak in the Menominee language. He would identify the plants and say the name in the Menominee language, and he would tell me what they were used for. He would say in Menominee the words of the plants, and I would gently squeeze his hand and say it back. Memories that had lingered within my mind as I awakened to the Menominee language and sounds of words spoken from current language teachers.

I always remember carrying white and yellow flowers, and I assume they were either trillium, bloodroot or bellwort. My grandmother would always grab an empty mason jar and place the flowers in the middle of the kitchen table. Springtime was always a significant time to gather the medicines. During the hotter summer months, we would gather berries to make blueberry pancakes.

As Menominee people, my family has always lived off the land, primarily eating what we grew on the reservation, both plant and animal. My grandparents lived in a light green house positioned in the middle of the hill in Neopit with a large silver gas unit in the backyard. My grandmother had 13 children, and she knew how to make many dishes from all the meat brought in from my grandpa's hunting expeditions. Because she could cook, community members often stopped by to share a meal and tell stories.

This form of oral tradition has been passed down from generation to generation, and I am fortunate to have had many storytellers within my family. This traditional grounding paved the way for me to become a writer, to share stories from many people, and to weave together common threads to achieve shared goals.

After living with my birth family for six years, I was removed from my family and placed within the adoptive home of the Peterson family near Green Bay, Wisconsin and the Oneida reservation. My adoptive family had similar practices of hunting and gathering as my birth family, where my brothers and father would hunt and fish. Our family would have wild game, which consisted of turkey, pheasant, grouse, duck, and goose for dinner. During the fishing season, we would have musky, pike, northern, walleye, perch or pan fish. At a young age, my adoptive dad taught me how to catch and fillet fish. My adoptive mother taught me how to cook the wild game and fish using many spices and herbs she grew in her garden. Also, my adoptive mother and sister would go out and gather flowers and herbs from the garden and make different collages to use as fragrance around the house. My adoptive mother's garden was a source of knowledge for me about sustainability and food sovereignty all throughout high school, as she also harvested tomatoes and peppers every year. To me, food sovereignty is sustaining oneself by means of growing, gathering, harvesting and preparing foods for individual consumption.

When I attended college in Milwaukee, traditional ecological knowledge played a significant role in my understanding of the value of culture and tradition. I befriended a Ho-Chunk family who enhanced my cultural knowledge of tanning deer hides, drum making, singing, and food sovereignty. The Bearskin family assisted me in understanding the concepts of intellectual property rights, seed sovereignty, and Indigenous cuisine.

The journey of understanding food sovereignty continued into my later years while participating in cultural ceremonies, which included learning how to prepare fry bread and Indian cookies as spiritual gifts for the physical and spiritual world. When I worked for the Oneida tribe, the Indigenous foods included making corn bread, Three Sisters soup including how to grow a Three Sisters garden. Most of the classes that I took hosted by the tribe were given at Tsyunhehkwa, (joon-henk-wa) the organic farm that teaches farmers the importance of food sovereignty, seed preservation, and implementing the culinary skills for children and adults.

Many years later, I was reminded of my youth as I walked past wild blueberries along the shore of Lake Mendota near the University of Wisconsin picnic point area. During my 1st year of doctoral studies at the university, before I started to research wild-rice, I wanted to study Salvia apiana, white sage. This particular sage grows in Southern California and *elsewhere. However, my journey to study wild-rice began after my daughter, Demi Big Bear, returned from a high school field trip to northern Wisconsin. Demi's field trip was provided by the Madison chapter of the American Indian Science and Engineering Society (AISES) within the Madison Metropolitan School District. Twelve Native American High School students traveled and camped on an island at Crex Meadows near Grantsburg, Wisconsin. The students learned from a local tribal elder about ceremonies and the process of gathering wild-rice. Demi described the elder's concerns about the future of wild-rice. "He said that the reason we go through the ceremony, they do it every year, so the reason that they go through the ceremony is because of the fact that the wild rice is going extinct. So, they do the ceremony every year in hopes that wild rice will come back" (Big Bear, 3/12/10). The relationship I formed with wild-rice became a priority after hearing my daughter ask me to study wild-rice based on the stories she heard from local elders about how climate change is impacting the wild-rice. Demi enjoyed her trip and returned with many stories of what the elder had shared with her concerning the wild-rice's present state.*

> *"I noticed that the elder was really saddened by the story that he was telling. He said that every year they came and it seems like wild rice just keeps disappearing. I know he is really hopeful. He does the ceremonies every year. And, in hopes that the wild rice will actually come back. He's noticed a little bit of a change but I'm pretty sure that wild rice is actually going extinct. And if there is anything we can do about it, we should be doing something about it. Because wild rice is a part of our Native American culture. And we grew it. We used it as a survival for food" (Big Bear, 3/12/11)*

As my daughter finished telling her story and experience at the wild-ricing camp, she shared that the elders had concerns about who will carry on the wild-ricing gathering traditions for the next generation. One elder shared his tears at the camp about the potential that wild-rice may disappear. After hearing about this one elder, I decided to switch my studies from the white sage to wild-rice in order to reach the youth audience so that they will always remember and recall the significance of wild-rice.

CHAPTER ONE: SOVEREIGNTY OF WILD-RICE

Defining Sovereignty

Plant sovereignty plays an important role for establishing wild-rice. “Manoomin, or wild rice, within the White Earth Reservation possesses inherent rights to exist, flourish, regenerate, and evolve, as well as inherent rights to restoration, recovery, and preservation” (White Earth Anishinaabe Nation Res. 001-19-010.). The term sovereignty in itself is truly difficult to define and describe; however, an important point about food sovereignty was made by the White Earth Chippewa as “You cannot talk about being sovereign if you cannot feed yourself" (http://anishinaabefoodsovereignty.com/aboutus/). Seed sovereignty is in reference to individual seed ownership, rather than addressing the sovereignty of the plant itself. In 1996, at the World Food Summit, La Via Campesina implemented a movement of international peasants to address “ongoing global struggles over control of food, land, water, and livelihoods” (http://usfoodsovereigntyalliance.org/what-is-food-sovereignty/accessed 5/1/18).

Tribes are working alongside the U.S Federal government to develop food policy and food sovereignty rights for Indigenous people and their diet. According to the U.S. Food Sovereignty Alliance, “Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food" (The U.S. Food Sovereignty Alliance 4/27/18).

History of Wild – Rice

Historically, wild-rice, also called wild-oats, has been found in various lakes and rivers from Texas to Wisconsin, though an abundance of wild-rice can be found in

Minnesota, Wisconsin, and Michigan (Meeker, 1997). It is not an oat or rice, but a cereal grain from the grass family. Named by Carl Von Linnaeus, wild-rice is part of the *Zizania* in the Poaceae grass family, (old name Graminae), whereas both Asian and African rice belong to the genus *Oryza*. (Missouri Botanical Garden database TROPICOS 2017, May 3). *Zizania aquatica*. (Retrieved from http://www.tropicos.org.) *Zizania aquatica* was named in 1753 by Carl Van Linnaeus and *Zizania palustris* was named in 1771. Wild-rice continues to remain endangered due to changes in environmental conditions, invasive species, human interaction, and controlled water levels.

Charles Brown (1927), Paul Radin (1990 [1923]), and Albert Jenks (1901) surveyed and mapped the sites of wild-rice locations across Wisconsin. According to Brown, wild-rice or *Zizania* is found in all regions of Wisconsin including south central Wisconsin. The Ho-Chunk who lived near the Lake Winnebago area and along the Fox River were described by Paul Radin. The Ho-Chunk riced near this area and landed near the Green Bay banks called Red Banks (Radin, 1990 p. 31). The Menominee gathered wild-rice near the mighty Menominee River (Keesing, 1987 p. 18). The Ojibwe riced in streams south of Lake Superior (Jenks, 1901, p.1034).

Wild-Rice Genus

There are two species of wild-rice that exist in Wisconsin, and these two species differ in habitat preferences and location: *Zizania aquatica*, a lake species that grows in the southern half of the central Great Lakes region, and *Zizania palustris*, a riverine species that grows in slow moving rivers and streams. The wild-rice grows in “shallow peat soils, and clay or sandy loams (soils)” (Oelke, 1997, page 1). The *Zizania palustris* can be distinguished from *Zizania aquatica* by its larger rice grains, fruit hairs, smaller plant structure, and smaller leaves (Meeker, 1993, p. 88). These two species also differ in their habitat preferences and location. I contacted James Meeker by phone in October 22, 2022, and informed him of my qualitative research and the Traditional Ecological Knowledge data I obtained from tribal interviews concerning the two species of wild-rice. James was intrigued and informed me to keep collecting data from the elders about their concerns with wild-rice.

Wild-Rice Harvesting

The wild-rice growth process goes through four stages of development that includes germination, floating leaf stage, emergent leaf stage, and maturity/harvest stage. Germination occurs in the early spring usually in middle or late April. At first, the leaves are long and ribbonlike and grow underwater. They can range from a foot to five feet in length. The growth then goes into the floating leaf stage, which occurs about a month later or in June. In this stage, the leaves float on the water surface spreading across the water landscape. The aerial leaves are formed afterwards. In July, the stalk forms, and the plant emerges above water pulling the floating leaves upwards. The rice displays a yellow greenish inflorescence and shoot from the middle of the stalk. By August, both male and female sections of the plant, staminate and pistillate respectively, emerge (Vennum, 1988, p. 15).

Wild-rice gathering occurs in late summer or early fall when the mature plants are ripe with grain. The harvesting process for most Native nations consists of two people using a canoe propelled by a long push pole that extends about 11 to 13 feet long, with the pole pushing against the river or lake bottom. Traditional harvesters use a two-person canoe with one person standing and poling; the other person bends the wild rice while tapping wild-rice seed into the canoes using knocking sticks (Vennum, 1988, p. 81). Some of the wild-rice seed misses the canoe and lands in the water to assist in reseeding the waterways. Once the gathering of the wild-rice is finished, the seed is removed from the canoe and placed on a drying mat to dry in the sun. The wild rice is parched, which entails placing the rice in a kettle over a fire. The rice is constantly turned to prevent popping or scorching the grain. During this time, the chaff, which is the broken hulls from the seeds, is separated from the seed pod by dancers who are wearing brand new moccasins and are dancing on the seed rice. The rice is then placed in birch bark baskets and winnowed or thrown into the air to allow the wind to get rid of the chaff. Gathering wild-rice is cathartic for many tribal members in reconnecting and re-establishing the seed bank into the lakes and rivers. Anderson (2006, p. 356) explains this nicely for tribal and non-tribal people: "Restoration is also a discipline of the present: it fulfills people's inherent needs to experience and heal nature, regardless of race, ethnic background, class, or gender" (Anderson, 2006, p. 356).

Hand seeding and canoe seeding fostered seed dispersal along the channels, creeks, and ponds. Hand seeding is taking the wild-rice seed and selecting areas to place the seed into water by hand in areas for revitalization. Canoe seeding occurs with tipping over the entire canoe with the seeds in it or by sitting in the canoe distributing the seed by hand.

The dispersal of wild-rice to different lakes by Native peoples in Wisconsin can be compared to other plants that have been transplanted by other people. For example, Gary Nabhan describes the cultural significance of gifting tobacco, (a traditional plant offering) to the earthly elements of water, plants and earth. "At least in former times, the harvesters on their first outing left a gift of tobacco on the waters, to placate the Water Monster who might otherwise overturn their canoes" (Nabhan, 1989, p. 116). A gift of tobacco is offered to the Water Monster during the first outing so that the canoes are not overturned (Nabhan, 1989, p. 116). Dispersal occurs when humans travel using the main waterways between various lakes. Wild-rice distribution occurred through bartering, trading and transplanting along the rivers and pond areas. Wild-rice existed not only in Wisconsin but throughout Texas and is referred to as *Zizania texana*. "Where other transplants were made into a selected area on the San Marcos, tubers and canoeists inadvertently knocked over all the wild-rice fruiting heads" (Nabhan, p. 111).

Another example of seed dispersal is described by Dr. Nancy Turner with the distribution of camas bulbs, which has been documented in places like Haines, Alaska (Turner and Kuhnlein, 1983, p. 201). "All of the species grow readily from seed. Additionally, the rice-like bulblets of the *Fritillaria* species can be used for propagation, and the bulbs of both *Camassia* and *Fritillaria* can be transplanted from natural populations" (Turner and Kuhnlein, 1983, p. 205).

In addition, camas bulbs were traded between Tribes. "Dried camas bulbs were also traded to the Southern Kwakiutl of northern Vancouver Island" (Turner and Bell, 1973: 272). Trading occurred prior to European settlement as camas bulbs were found widely distributed throughout Canada (Turner and Kuhnlein, 1983, p. 207). The Lummi Tribe harvested camas bulbs. In the space where the bulbs were harvested, the Lummi crushed the soil. They then buried the seed capsules with the stalks attached into holes, then covered the seeds up for the growing season (Turner and Kuhnlein, 1983, p. 211). Trading is an example of one method of plant material distribution.

A shared aspect of camas bulb harvesting and wild-rice harvesting is the use of family territory markings. When describing the familial territory markings for the Straits Salish, Turner and Kuhnlein write. “At least among the Straits Salish groups, such as the Saanich, the best digging areas were owned by families and were frequented by them year after year…” (Turner and Kuhnlein, p. 211). With wild-rice harvesting, the families would tie the wild-rice stalks into special knots indicating which family could harvest in a specific area. These harvesting practices may have contributed to the overlapping of *Z. aquatica* and *Z. palustris*. Familial ties to the wild-rice territories are significant for passing on the tradition to the next generation (Interviewee WS310169, Monday, July 20, 2015; see description of interview methods in Chapter 2).

Zizania aquatica grows in the southern half of the central Great Lakes region. (Interviewee WS310170, 2012). The oldest collected wild-rice herbarium specimen in Wisconsin is dated back to 1885 and was found in Milwaukee, Wisconsin collection ID MIL1191 (collector: Runge, F). Herbarium specimens of *Z. aquatica* were collected in October 2000 in Lake Kegonsa and deposited at the Wisconsin State Herbarium (WIS). This specimen substantiates the past presence of this particular species within this region. Other herbarium samples also deposited in the Wisconsin State Herbarium (WIS) suggest wild-rice was growing in Lake Kegonsa historically; it was also recorded to be found in Lake Wingra in historical data by Charles Brown (1927). *Zizania aquatica* was chosen for my pilot experiment during 2013-2014.

Zizania palustris is considered a riverine wild-rice, and there are also herbarium samples of this species. The oldest wild-rice herbarium specimen of this species is dated back to 1895 and was found in Madison, Wisconsin and 1896 in Kakagon River. This is an important elemental distinction, because as the riverine wild-rice is much taller, it requires shallow and slow-moving water conditions in order for it to flourish and grow (Meeker 1993, p. 88) The best way to identify specimens from the distant past is to analyze archeological data including the phytoliths and plant remains (Silbernagel, 1998).

Wild-Rice Cultural Significance

Wild-rice is culturally significant for many tribal nations in Wisconsin as it is used in many cultural celebrations like weddings, funerals, and naming ceremonies, as well as for community gatherings, like Manoomin (wild-rice) Pow Wows on the St. Croix and Bad River Ojibwe reservations. Of the twelve Indigenous Indian nations currently residing in Wisconsin, those that have ricing traditions are all six Ojibwe bands (Bad River, Red Cliff, Lac du Flambeau, Lac Courte Oreilles, St. Croix and Mole Lake), Menominee, Potawatomi, and Ho-Chunk. Three New York-based tribes, including the Oneida, the Stockbridge-Munsee Band of Mohican Indians, and the Brothertown do not traditionally harvest rice (Jenks, 1901, p. 1038).

Ojibwe

The Ojibwe origin story is crucial to understanding the role and significance of wild-rice in their community. Gitchee Manidou (also known as Creator) created the four elements of Earth to include “rocks, fire, wind, and water.” A great flood occurred, and a muskrat dove deep into the waters to return to the water surface with soil in its paw. This is how the Earth was created. (Helbig, 1987, p. 13).

Wild-rice or Manoomin (the good berry) has been around since before the confederacy, which refers to a broader group known as Anishinaabe and includes the Ojibwe, Potawatomi, and Odawa, and before the Ojibwe migrated from the east to a place in the Upper Great Lakes region where "food grows on the water." According to their ancient legends and traditions, the Ojibwe originally lived in the east near the Great Salt Sea, but, following a vision from a *megis* (cowrie shell), they were led westward towards the Great Lakes (Tanner, 1992, p. 14). Throughout their journey, the Ojibwe discovered many lakes and rivers that held wild-rice as a valuable food source. Tanner writes that the story of their journey embodies many of their traditional values and beliefs, among them a deep value for the spirits and a belief in the instructive potential of dreams and visions (ibid.) In this context, the vision from the *megis* greatly contributed to their discovery of wild-rice, cementing its cultural and historical significance for the Ojibwe people (Tanner, 1992).

Albert Jenks provides a more detailed account of Ojibwe people's journey westward:

> "That authority states that, according to their traditions, the Ojibwa dwelt on the Atlantic coast north of St. Lawrence river about five hundred years ago. At that time they started westward, stopping for a considerable period on the St. Lawrence near the present Montreal, again on Lake Huron, then at Sault Ste Marie, and finally at La Pointe, Wisconsin, and possibly also at Fond du Lac, Lake Superior, as one of their traditions includes this latter as a stopping place" (Jenks, 1901, p. 1039).

Following is the Anishinaabe Prophecy about seeing two different paths in life. One of the paths is worn and the other is a path of green (LaDuke, 2008). This is in reference to a way of life that is of materialism and greed and the other is to work with Mother Earth and assist in the best environmental practices. The importance of the Ojibwe origin story is to delve into the cultural significance and importance of wild-rice.

The Ojibwe migrated from the East to northern Wisconsin where wild-rice grew on the water.

> "Nanabozhoo is of miraculous birth, the son of a virgin and the West Wind. Raised by his maternal grandmother, he wages warfare with monsters and performs heroic and extraordinary deeds, experiencing a catastrophe like that of Jonah and a deluge like Noah's. Responsible for such cultural necessities as the canoe, corn, and the arts of healing and numerous natural phenomena, he wanders about the earth having adventures in which he plays tricks and is himself tricked. In later life he develops

> into a wise man and prophet of whom advice and boons are sought. This is the basic pattern of the Nanabozhoo legends upon which tellers down through the years have played many fascinating variations" (Helbig, 1987, p. 3).

The role of wild-rice in the story of the Ojibwe's journey to northern Wisconsin is important to the context of the Ojibwe origin story. The Ojibwe migration story tells us that Gitchee Manidou created the four elements of Earth to include "rocks, fire, wind, and water." A great flood occurred, and a muskrat dove deep into the waters to return to the water surface with soil in its paw. This is how the Earth was created. (Helbig 1987, p. 13). Tanner (1992, p. 14) also discussed the Ojibwe migration story: "The Aninshinabe first lived by the Great Salt Sea in the east, but long ago they followed the vision of a megis (cowrie shell) that led them westward to the Great Lakes. This account is part of the ancient legends of the Ojibwa Indians, which explain how they were created and how they came to live in the region of the Great Lakes. The stories embody many traditional Ojibwa values and beliefs. Among these are a reverence for the spirits, which the Ojibwe believe animate all things, and a belief in dreams and visions as a means of receiving instruction and guidance."

Menominee

Another tribe that harvests wild-rice includes the Menominee. The name, Menominee, translates to Kaeyas Mamacitawak or "Ancient Ones" and "Ancient Movers" (Besaw, 2023). According to Besaw, the Menominee were given the name of "People of the Wild-Rice" (Besaw, 2023). The Menominee harvested wild-rice near the Wolf River and also experienced the brief loss of their wild-rice in the 1970's. The Menominee originated near the mouth of the Menominee River. According to their ancient legends, the Bear who had lived underground, transformed into the first Menominee human being. (MITW website, accessed December 2, 2023 at 5:21pm).

Revitalization of Wild-Rice

Acknowledging the conditions of how wild-rice grows within the water and understanding how Indigenous people have utilized and maintained the wild-rice plant over time is helpful for creating potential rejuvenation strategies rooted in Indigenous community and knowledge (Anderson, p. 340). For example, according to an elder in the Bad River tribe, one historical method of preserving the wild-rice plant included burning it on the water, similar to what is called a prescribed burn today.

He said, “One of the things I’ve heard growing up, all my life, but I’ve never seen it done was, after wild-ricing for the year, a lot of our old ones would burn the wild-rice on the water, because it would help it (snaps finger) generate back faster for the next year. We don’t do that anymore. I’ve never seen it done before. My uncles, my dad’s oldest brothers, he says he remembers seeing that as a little boy” (WS310169, 2015; see Chapter 2 for description on interview methods).

Given that there are similarities between burning the rice on water and prescribed burns, a future study that uses a prescribed burning method could be conducted on a test pilot area for approximately 3 to 6 years to attain accurate data on its usefulness in rejuvenating the plant. The required permits from both State and Federal agencies and a lengthy discussion may ensue to understand challenges and benefits of burning the wild-rice.

> "Through programs and agreements that maintain areas for populations of highly valued native plants and policies that assure the availability and preservation of cultural resources, these agencies have taken steps toward becoming advocates of maintaining, tending, and encouraging the growth of plants important to Indian people" (Anderson 2006, p. 312).

Potential rejuvenation strategies could also consider how those methods have been used to assist with other endangered plants. For example, in other areas of the United States, such as California, basket weavers discussed the challenges of a plant named bear-grass. They discussed how burning the bear-grass helps produce a stronger plant for the following year.

> “Contemporary northern California weavers talk about the difficulty of obtaining bear-grass as an overlay material in basket making; there is not enough of it, and the quality of the leaves is usually poor because the plants have not been burned. Pam Mendelsohn recorded among the tribes of northwestern California in 1983 that indigenous fires had traditionally been set in bear-grass patches after the first heavy rain in October or November. The new bear-grass leaves-stronger, thinner, and more flexible than older leaves-were then collected the following June or July" (Anderson 2006, p. 313).

A critical limitation to consider is that, although many programs and agencies have taken steps to advocate for the growth and maintenance of plants important to Indigenous people, in many communities, the traditional burning practices have been prohibited. Peacock and Turner write, “Burning, for example, is prohibited, and many elders have expressed deep regret that they are no longer allowed to follow their traditional burning practices. They are convinced that loss of control of their traditional lands and prohibitions against landscape burning have caused severe deterioration of traditional plant foods” (Peacock and Turner, 2002, p. 167).

With all this in mind, the primary purpose of my dissertation is to address the inherent right to maintain sovereignty as a free-standing seed-bearing plant, and its capacity to be recognized as an autonomous, independent-producing plant. Wild-rice provides sustenance and nutrition to a community by building a relationship between humans and plants.

Lake Poygan Core Sampling Adventure

On Saturday, October 16, 2022, Dr. Jessica Conaway (Indigenous Arts and Sciences Research Coordinator), Alex Tovar (Nelson Institute Environmental Sciences undergraduate student) and I embarked on a wild-rice research adventure to Lake Poygan

Lake Poygan is located by the City of Winnecone, Wisconsin, near the Town of Poysippi with coordinates of ***Latitude:*** *44° 08' 60.00" N* ***Longitude:*** *-88° 45' 0.59" W. The lake is situated in Waushara County to the west of Lake Butte des Morts and to the north is the OWR (Outstanding Water Resource) tributary of the Wolf River that enters into Lake Poygan.*

Dr. Conaway was granted access to a pontoon boat from the University of Wisconsin Oshkosh, as the source for our excursion on Lake Poygan. I applied for and was hired by Dr. Conaway from the Nelson Institute for Environmental Studies along with University of Wisconsin-Madison, through a funded grant from the NOAA (National Oceanic and Atmospheric Administration) Sea Grant.

Alex and I departed from Madison near 6 am in order to arrive at the lake by 9 am to travel near 3 tributaries to allow adequate time to collect the core samples. The sampling day lasted from 6 am to 5:30 pm. and Alex and I met Dr. Conaway by the boat landing. My job responsibility as a wild-rice graduate researcher included assisting Dr. Conaway and Alex to collect core samples from three tributary sediments of where wild-rice beds are located.

This trip required collecting three core samples per site for a total of 18 sediment cores. We visited three tributaries at the southwest corner of Lake Poygan where wild-rice beds are located. The three tributaries that we visited were: Pumpkinseed Creek (coordinates 44.111025, -88.890463), Pine River (coordinates (44.124361, -88.904195), Willow Creek (coordinates 44.113704, -88.896430). The pontoon boat anchored and floated in the middle of each tributary.

Alex utilized large plastic tubes that measured 70 cm in length as we attempted to sample the top 30-50 cm of sediment. He placed the plastic tube into the water, based in the middle of the tributary and syphoned the soil core sample into the plastic tubes. The method resulted in -20 cm of water column captured on top of the underlying muck. Alex created a makeshift hand-made filter to extract the core sample into the tube. My job responsibility was to lean over the bottom of the boat, to collect, capture and cap the soil core sample. This process required extreme patience to collect the sample without losing any of the soil when gathering the sample.

The most interesting sample collected came was from the Pumpkinseed Creek of which there were shells within the soil sample. The depth of Lake Poygan's ranges from 6 to 11 feet in depth. This is considered ideal conditions for wild-rice to grow. Luckily, I assisted in an efficient way as we were able to leave the tributaries by 2 pm that day.

Retrospectively, the excursion lasted for 5 hours. As we pulled our anchor from the Pine River, we noticed a storm heading our way with rain in the northwest horizon. We went back to the loading dock and unloaded our equipment. Dr. Conaway went back to UW Oshkosh to return the pontoon boat. Since it was late October, I looked back to see the rain falling onto Lake Poygan and knew that the wild-rice bed were ready to prepare for the cold winter months ahead and to prepare for another harvesting season for the next generation.

CHAPTER TWO: METHODS AND METHODOLOGY

Wild-Rice Interviews and Methods Section

The methods section is dedicated to Joe Rose, Sr. and Mike Hoffman who have passed away since the completion of the interviews for my dissertation. These two elders, respectively, from the Bad River Nation and Menominee Nation were interviewed with their own personal in-depth history and traditional ecological knowledge pertaining to wild-rice and climate change. This section discusses the in-depth process I used to interview tribal and community members and then code, catalogue and design a data set/table to outline main codes for each section listed.

I received permission to interview tribal community members from the Bad River Band of Lake Superior Tribe of Chippewa Indians, the Lac du Flambeau Band of Lake Superior Tribe of Chippewa Indians and the Menominee Indian Tribe of Wisconsin. I received formal letters of approval from Bad River and Lac du Flambeau. With the Menominee Tribe I had to meet with the Menominee Language and Culture Code Commission on October 13, 2015 at 3:45 p.m. at the MLCC Building to conduct a formal presentation to the commission on my purpose, goals and objectives and results of my dissertation. In addition, I also received permission from the Internal Review Board (IRB) at the University of Wisconsin-Madison to proceed with the tribal interviews with the IRB approval number 2015-1436. All interview questions were approved by the IRB Board at the University of Wisconsin-Madison.

First, I received travel grants from an Advanced Opportunity Fellowship and the Nelson Institute to drive to three Wisconsin reservations including Bad River, Lac du

Flambeau, and Menomonee Nations. I visited the Bad River reservation in October 2015, the Lac du Flambeau reservation on October 22nd, 2015 and visited community members at large in December 2015. I also went to Stevens Point Wisconsin and the Menominee reservation in June of 2017 to visit Menominee elders. The interviews were conducted between 2015 and 2019 which also included interviewing my daughter since she attended an AISES (American Indian Science and Engineering Society) field trip to Crex Meadows Wildlife Refuge in Grantsburg, Wisconsin to harvest wild- rice.

Second, I transcribed all of the interviews for 6 months from June 2019 to December 2020. Transcribing had taken more time than I thought because some of the interviews were in the Menominee end Ojibwe language. I had to enunciate the words in-order-to figure out by a Menominee and Ojibwe dictionary to ensure proper meaning for the indicated question. From 2020 to 2023, I worked on the diagrams and processed the first and second coding sections. (see below for description of the coding process).

Mainly, I focused on the Cultural, Spiritual and Physical/Ecological values of wild-rice. In Figure 2, chapter 5 these qualities are the primary focus within wild-rice. Initially, I went through the interviews and highlighted common themes and words/phrases that pertained to values or concerns that interviewees ascribed to wild-rice. Examples included: rice as tradition, rice as threatened, rice as community and rice as healthy.

From the common themes and words/phrases, I then created sub-categories to include examples such as youth/harvest lack of interest and changing landscape to highlight a few. I used the transcribed interviews to code them according to Johnny Saldaña’s (2016) book on qualitative research. I utilized Values Coding as the first data set of coding. In the Values Coding, my main focus as I reviewed the interviews was to separate the core values of the wild-ricing community. These values included honor, sacredness, tradition, culture, and spirituality. And I used In Vivo Coding for the second data set for coding. The process included: reading over the interviews that I conducted at each reservation, sorting them out according to similar terms and connecting similar words or phrases into groups that accentuate the topic of discussion.

An example is a coding group called ancestral tie. For these particular words that were expressed by the interviewees, I looked at the commonality of each word or phrase such as “a long time ago”, or “origin story” or grandfather/relatives” or “grandparents”. This is an example of how I grouped the words or phrases from the sentences into a section titled ancestral tie. The majority of verbal expressions given by the interviewees highlights the commonality or common terms for each category.

Research Goals and Hypotheses

The goals of the case study interviews were to 1) define wild-rice sovereignty as a free-standing seed bearing plant 2) interview key management personnel actively preserving wild-rice 3) gather both qualitative cultural data and code the interviews 4) identify the significance of wild-rice to tribal-peoples and their cultures 5) identify whether *Zizania aquatica* is an endangered species and 6) diagram the elicited concerns about wild-rice’s future health, management and protection given changing cultures and changing landscapes. This dissertation integrates qualitative interviews of the Menominee and Ojibwe community members and elders about Traditional Ecological Knowledge (TEK). Ecological data was researched on Lake Wingra with seed samples dropped from 2012 to 2014 (see Chapter 6). In my qualitative research, my methodology was to interview the elders and community members from the Ojibwe and Menominee tribes about the historical and current cultural significance of wild-rice.

I asked open ended questions to learn about each elder's basic knowledge of and concerns about wild-rice. Gathering this information supported efforts to replenish and restore a vital Indigenous food source.

Qualitative Research: Interview questions with the elders

The primary component to the wild-rice dissertation is to interview elders and community members about wild-rice and the history of its importance. The elders I interviewed included: Joe Dan Rose Sr., Ojibwe/Bad River Tribe, Edith Leoso and Dana Jackson from the Ojibwe/Bad River Tribe; Lynne Johnson, Madison community elder; Dave Grignon, and Mike Hoffman of the Menominee Tribe and Greg Johnson (Biskakone) from Lac du Flambeau. Three other interviewees did not wish to be identified but wanted their quotes cited (see Table 4.1 below).

The questions for the Ojibwe and Menominee elder interviews included:

1. How would you describe the relationship of your community to wild-rice?
2. Can you share origin stories about the rice?
3. Describe your wild-ricing traditions.
4. What is important for food sovereignty of the Menominee and Ojibwe Tribes?
5. Can seed-bearing plants be considered sovereign beings?
6. How have modern industrial and recreational activities affected your rice?
7. How effective have conservation efforts been?
8. How attractive are eco-cultural restorations?
9. Have future sites been identified for the reseeding of wild-rice?
10. Do you have anything else you would like to share concerning wild-rice?

The coding for the interviews used the In Vivo Coding methods of Saldaña (2016), using both 1st and 2nd cycle coding as described in the book by Johnny Saldaña titled *The Coding Manual for Qualitative Researchers*. The first cycle qualitative coding will be a concept titled “affective methods,” which is a subset of values coding. Values coding is a way of applying personal reflections on a belief system that represents their perspective on a worldview (Saldaña, 2016, p. 89).

The second cycle qualitative coding assists in outlining a systematic or diagrammatic design approach to enhance the first coding data (Saldaña,2016, p. 149). The coding method used was Theoretical Coding. Theoretical coding consists of focusing on one specific category that will explain what my research contains (Saldaña, 2016, p. 163). Based upon the findings of the interview research, a model was developed to integrate the significant importance of all participants.

Table 4.1 below indicates the name of the interviewee, their interview identification number (from the recordings), the reservation of affiliation and the date of the interview. According to the IRB (Internal Review Board), the form indicates whether the interviewees wanted their name published or not. There are three community members who participated in the interview but requested that their name is not placed in any publication. The three participants are WS310169 and WS310170, the latter of which were a couple that provided one interview.

Table 4.1: Wild-Rice Interviewee, Tribal Nation and Date of Interview

Name	**Intervieww ID**	**With Name**	**Quoted w/o Name**	**Wisconsin Reservation**	**Date of Interview**
Demi Big Bear		Yes		Menominee/Nakota Sioux Community-Member	03/12/19
Dana Jackson	WS310175	Yes		Bad River Nation	10/15/15
Edith Leoso	WS310177	Yes		Bad River Nation	10/15/15 and 07/21/17

Joe M. Rose Sr.	WS310176	Yes		Bad River Nation	10/15/15
Biskakone Greg Johnson	WS310178	Yes		Lac du Flambeau Nation	10/22/15
Cihkwanahkwat Mike Hoffman	WS310168	Yes		Menominee/Stevens Point, Wisconsin	06/02/17
David Grignon	WS310182	Yes		Menominee Nation	06/19/17
Lynn Johnson	WS310180	Yes		Community Member	12/15/15
WS310169	WS310169		Yes	Bad River Nation	07/20/15
WS310170	WS310170		Yes	Community member	06/5/17
WS310170	WS310170		Yes	Community member	06/5/17

An Example of Coding

There are multiple codes that were established while coding my interviews. Here is one example of how this was coded for the dissertation. One code I used is titled feasts. This is one example of what is applied here. This quoted paragraph could also be placed in another category.

Example of coding, based on one example of an interview which is interview WS310176.

A) The paragraph below is concerning subject WS310176, Joe Rose, Sr., from the Ojibwe Nation. The topic and question are in concern about wild-rice and its relationship to the community. Primarily, feasts is the topic of discussion and is labeled and used for the 1st coding. The feast is part of ceremonial practices, and the 2nd coding or Theoretical coding is labeled Rice as Ceremony.

(A1) "Our community recognizes wild-rice as being sacred, because it plays a very important part in our migration story. We use it at every feast, which is most of the time. And the Kakagon sloughs, located on our Bad River reservation is probably the biggest area of wild-rice in the Great Lakes. And so our traditions go way back, concerning the wild-rice. It's something that is very special to us as a people: the Lake Superior Ojibwe."

1st Coding: In Vivo/Values Coding: Feasts

2nd Coding: Theoretical Coding: Rice as Ceremony

B) The paragraph below concerns subject WS310177.wma from the Ojibwe Nation. The question asked if future sites have been identified for reseeding of wild-rice. The subject is discussing cultural preservation and how the Ojibwe will address the wild-rice preservation. The In Vivo coding is title Cultural Preservation. The Theoretical coding is titled "Rice as Threatened" since this is an element community members are concerned about in keeping the wild-rice in the community.

(B1) "The following year, it just boom. Flourished. We'll continue to do that here at Bad River, until, you know, we'll probably keep managing it and send it on to the next generation to manage. That's what we have to look for, down seven generations ahead. What are we going to do to manage our rice, wild-rice here? And if nobody else, if the climate changes so much that our rice cannot exist anymore, there's going to be a huge problem."

1st Coding: In Vivo/Values Coding: Cultural Preservation

2nd Coding: Theoretical Coding: Rice as Threatened

Remaining Areas of Research

Scientists could assist in areas of researching and measuring the muskrat population along with the red-winged blackbird. The Bad River elder Joe Rose, Sr., discussed at great length, the drastic population decline of the red-winged blackbird and was concerned about the green worm loss within the wild-rice harvest. More research is needed to identify the issue of the wild-rice seed pod. The seed pod is without a rice seed at times and a test area could be utilized to determine the surrounding conditions and characteristics of the changing landscape and environmental factors. The focus of the study is to measure a gain or loss of the population over a three-to-five-year span.

A Day Harvesting Wild-Rice

In September, a friend of mine named Juniper called me to ask if I would be interested in harvesting wild-rice in Northern Wisconsin. She wanted to drive up north using an old-fashioned form of Global Positioning System (GPS) to find this particular lake. This method uses coordinates, or in other mapping terms, looking at a town, section, and range to find a place. I asked if my then 8-year-old son Jeremy could come along since he wanted to experience life in a canoe and to travel to the northern woods for a day of learning and rest. Juniper allowed Jeremy to attend.

The drive to the remote location was relatively quiet and uneventful. As we made our way to the lake using old time mapping, we found ourselves lost because we didn't have the luxury of modern GPS gadgets to minimize the time constraint. Early morning is the best part of the day to harvest and gather wild-rice, since it's the coolest part of the day. Sometimes the sun will reflect on the lake like a mirror, and the heat can be unbearable. Fortunately, after backtracking a bit under the direction of road signs, we made it on time after losing only 15 minutes to lost roads.

When we arrived on the bank, we noticed one family preparing their canoe to gather the wild-rice on the lake. It was a family consisting of a mother, father, and son working with their push pole to make sure their knocking sticks were visible to us before launch. As we exited the car, I noticed there was minimal development or housing around the lake. The wild-rice stood high above the canoes, and as the family started pushing with their push pole, the edge of their canoe disappeared into the vast tall wild-rice stands. Jeremy jumped out of the vehicle and ran for his blue life vest. He pulled on his Oneida Nation school baseball cap and settled into the canoe already on shore. Jeremy was always one of few words, but I knew in his heart he was excited to be a part of harvesting this beautiful plant.

Juniper readied the canoe with paddles, the push pole, the knocking sticks, and a cooler filled with sandwiches and drinks for a short break during the harvesting session. We then had to decide who was going to push pole the canoe and who would harvest. We decided that I would push pole. The push poler required upper arm strength since the objective is to strategically place the push pole into the water to push the canoe forward. Juniper and Jeremy would gather and harvest the grain into the canoe first. Our canoe silently glided into the lake, and I had to sturdy myself to hold this beautifully carved push pole made from Tamarack. The tamarack pole bottom resembles a carving of a duck bill so that it can grasp onto the marl soil. We went out about 300 feet, and we could see all the stands of wild-rice on the side of the canoe. Juniper held her knocking sticks outward and then showed Jeremy how to hold the wild-rice plant, bend the plant over the knocking stick and then tap the other knocking stick to knock off the grain into the canoe. Jeremy learned quickly and was proud that he could knock wild-rice into the canoe. For me, the push poling wasn't as tedious, as most of my concentration was steadying the canoe as I stood at the bow pushing with the Tamarack pole.

The beauty of harvesting is listening to the sounds of the lake which including the sound of birds chirping high above. There were red-winged blackbirds and cranes flying overhead. We could hear the other family giggling with delight as they were on the other side of the lake. There was the gentle sound of the waves lapping against the canoe, and of course, the wood clashing sounds of the knocking sticks and the hush of the hulls as they were guided off the plant and quietly landing into the canoe.

We harvested for two hours in almost complete silence. We barely talked to one another as we were already aware of the task at hand. After the second hour, we took a lunch break while sitting amidst our abundant wild-rice harvest. Juniper grabbed the cooler and handed out sandwiches to Jeremy and me. Our canoe stopped in a wild-rice stand where it was completely hidden from shore. The entire canoe was surrounded by tall stalks, and the wild-rice hovered with a great and mighty presence. As I ate my sandwich and leaned back, all I could see was the blue sky, the sun, a tall stand of wild-rice completely surrounding our canoe, my son and my friend as we were all in the middle of a lake, minuscule to the world. It was in that moment I realized the significance of preserving a cultural way of life and the importance of reflection.

After we ate our lunch, we started to return to shore. Juniper decided to push pole back so that I could learn how to harvest the wild-rice as well. Jeremy had fallen asleep, and I sheltered him from the fall sun, quietly placing a shield over his face to prevent sunburn. When we got to shore, Jeremy took off his vest and climbed into the car to continue sleeping. Juniper and I pulled the canoe towards the car, and then we reached for the bags to gather the wild-rice. As we were gathering the wild-rice, Juniper's friend appeared. The next step was to have the wild -rice aired out, put through the process of parching and stomping, and then winnowed. We handed our bag to her friend, as he was taking it to the camp for the next step in the process. Juniper and I lifted the canoe onto the car so that we could make it back to Madison at a decent hour.

As we pulled away from the lake, I was amazed to see how isolated this lake appeared. There were families arriving just as we were leaving. In short, there was plenty of wild-rice for everyone. About two weeks later, I received a phone call from Juniper informing me that she had two-gallon bags of wild-rice for me and my family. The lake group of community tribal members allowed my friend and I to receive wild-rice for our participation in gathering this vital food source. I have always cherished this adventure and will always show gratitude to Juniper for allowing us to go with her and showing us the value of working within a tribal community.

CHAPTER THREE: SELF-GOVERNANCE AND SUSTAINABILITY

Significance of Wild-Rice to Tribal Peoples and Culture

My dissertation consists of two parts. The first part discusses qualitative research on the cultural aspects of wild-rice using elder and community member interviews. The second part is to synthesize the elder interviews about their perception and maintenance with the present location of wild-rice and summarize their concerns of the environment with respect to climate change. An appendix is included at the end of the dissertation to include a portion of the wild-rice study and the results of coding of interview quotes. The dissertation encompasses a mixed methods approach utilizing Traditional Ecological Knowledge of elders and community members through interviews along with an attempted restoration pilot project. A pilot project/study growing wild-rice in Lake Wingra ended after two years due to a minimal success rate. Nonetheless, a summary of the results is included here as Chapter 6.

This dissertation seeks to answer three interrelated questions: A) What are the historical Indigenous practices of managing and harvesting wild-rice B) What is the cultural significance of wild-rice to the Menominee and Ojibwe Tribes in Wisconsin? C) What are the elders' and community members' perceptions of loss or maintenance of wild-rice? Conducting interviews with elders and community members assists in preserving the culture of wild-ricing, maintaining tribal cultural identity broadly, and protecting the overall health and well-being of tribal communities.

Wisconsin is located in the central Great Lakes region of the United States and is surrounded by Minnesota, Illinois, and Michigan. Wild-rice has been historically documented in various lakes and rivers in Wisconsin. The Bad River and Lac du Flambeau

Bands of Lake Superior Chippewa (Ojibwe) and the Menominee Nation reservations are located in the northern and eastern regions of Wisconsin. These are only three of the twelve existing tribes residing within Wisconsin. Wild-rice existed in all four corners of the state extending from the shores of Lake Superior on the north, to Lake Michigan on the east, to the shores of the Mississippi River on the west, and to Wisconsin's southern border with Illinois. Due to increased recreational usage on lakes, phosphorus run off from farm fields, the introduction of invasive species, climate change, and potential mining threats, this vital resource remains in jeopardy. Each of these elements will be discussed in detail.

The dissertation outlines case studies of three tribal communities' management and usage of wild-rice and considers methods for improving management systems within Wisconsin lakes and rivers. Historically, wild-rice has been described at the Wisconsin State Historical society by Albert Jenks and Charles Brown, among others. The Ho-Chunk, some of whom lived near the Lake Winnebago area and along the Fox River, were described by Albert Jenks at the Historical Society. According to their oral history, the Ho-Chunk may have riced near this area, and also settled near Green Bay in the area called Red Banks. The Menominee riced near the great Wolf River, and the Ojibwe riced in areas in northern Wisconsin close to the Odanah and Ashland zones.

Cultural background of wild-rice

The Menominee and Ojibwe traditionally made amends by sharing their wampum belts with one another to maintain peace between the two tribal nations (Schoolcraft,1851, p. 305).

However, the Ojibwe and the Sioux tribes would later fight for the wild-rice. As the European settlement occurred in Wisconsin, it became clear that one of the tribes was going to be forced to move further west. The Ojibwe went to war with the Sioux for the fields of wild-rice and to maintain sovereign jurisdiction of their land. Many Ojibwe and Sioux lost their lives in what is now known as the Sandy Lake Tragedy of 1850. The outcome was that the Sioux moved west (Ring, 2015).

During the time of European settlement from the early 1800s to 1900s, rivers of wild-rice were documented by historians and noted by scholars such as Henry Schoolcraft (1851), Paul Radin (1990), and Charles Brown (1927). The abundance of this plant was apparent from Lake Winnebago to the Neenah, or what is now known as the Fox River, and over to Green Bay.

> "The NEENAH, or as it was formerly called, the Fox river of Green Bay, is one of the most important rivers in Wisconsin, extending as it does nearly half across the Territory... It takes its rise in Lake Sarah, Portage county, and runs in a direction a little south of west, (almost directly opposite its general course) for eighteen miles, towards the Wisconsin, as if with the intention of entering that river but owing to some unaccountable freak of nature, it here, when within one and a half miles of that stream, makes a sudden turn to the north, and soon assumes its general course towards Green Bay. From the portage to Lake Winnebago, through which this river passes, it winds about among extensive marshes covered with tallgrass and wild rice" (Lapham, 1844).

Manoomin, translated from the Ojibwe language, means “The Good Berry” and refers to what we now call wild-rice in English. Wild-rice has been documented in the Upper Great Lakes region since the early 1800s as scholars traveled through the Wisconsin region. However, tribal origin stories and storytellers tell of wild-rice being present throughout the region since creation. In the early 1800s, wild-rice (*Zizania aquatica*; Poaceae) was present in Lake Wingra, a small spring-fed body in the Yahara River chain of lakes surrounding the city of Madison (Charles Brown, 1927) in south central Wisconsin. At one time, there were six villages of Indian people living along this lake and 150 Indian mounds (Brown, 1927). A plant sample of *Zizania aquatica* (wild rice) species, deposited in the Wisconsin State Herbarium (WIS), was collected in Lake Kegonsa, Dane County, by Thomas Melchert on 9/7/1959 on one of the chains (The Wisconsin State Herbarium, 2000). The presence of this plant within the Madison lakes may indicate a possible trading system between tribal nations as they traveled through the linked river and lake systems. The presence of wild-rice is in the database of herbarium specimen collections and is evidence of its prior existence within the Yahara watershed. The oldest herbarium sample of *Zizania* in the Wisconsin State Herbarium was collected by Runge, F. on 8/25/1885 in Milwaukee, Milwaukee County.

Springs are a significant cultural and spiritual resource for the Ho-Chunk, the Indigenous people of the Madison area. In Radin's recollection, the words Winnebago and Ho-Chunk are synonymous names and are referred to interchangeably. The Ho-Chunk utilized the springs for healing purposes and to support wildlife and plant sustainability. The Ho-Chunk creation story indicates the tribe originated at Moogasuc or Red Banks, located near the present-day city of Green Bay, Wisconsin (Radin 1990). This area is a spiritual resource for the Ho-Chunk people. They have lived in the Upper Great Lakes region since the beginning of time, according to Ho-Chunk oral tradition. The Ho-Chunk language is a Siouan language (Radin 1990, p. 5). Certainly, the Ho-Chunk resided in the area prior to Wisconsin statehood in 1848 (Radin 1990, p. 17). Some Ho-Chunk were removed to Nebraska and returned to scattered lands in southwestern Wisconsin.

> "The Winnebago have been producers of large quantities of wild rice; in fact it has been, and still is, a staple food with many of them. These Indians ceded their Wisconsin lands, and many of them took a reservation in Minnesota in 1859; but they gradually returned, and in 1897 there were 1,447 of them scattered along Black river and it vicinity in Wisconsin. These are the only Winnebago now in the wild-rice district" (Jenks 1901, p. 1052).

> "Fox River from its source to Lake Winnebago was for hundreds of years a very productive field for this aquatic cereal, and along this river the Winnebago lived in plenty and peace with several wild rice eating tribes of the Algonkin stock" (Radin 1990, p. 68).

On September 24, 2022, a 3,000-year-old dugout canoe was found in Lake Mendota. Tamara Thomsen, who is the maritime archaeologist for the Wisconsin Historical Society, based in Madison, Wisconsin found this ancient artifact while diving. She had found a 1200-year-old canoe in Lake Mendota the previous year. As of May 23, 2024, nine more canoes were found in a submerged village and the oldest among them was dated to 4,500 years old (Ginsberg, 2024). Dr. Sissel Schroeder (Professor and Archeology Certificate Advisor), Tamara Thomsen and Ryan Smazal (undergraduate student graduated in 2019) established The Wisconsin Dugout Canoe Survey Project in 2018. A possibility is the Ho-Chunk may have used these canoes for wild-ricing. "In common with the Central Algonquian tribes, with whom they have come in contact, especially the Menominee, the Winnebago spent a number of weeks every year gathering wild rice" (Radin, p. 68). In addition, in 2015, a UW-Madison student discovered zebra mussels, an invasive species, on Lake Mendota.

Cultural Significance of Wild-Rice

Wild-rice or Manoomin (the good berry) grew in Wisconsin since before the Ojibwe migrated to a place in the Upper Great Lakes region where "food grows on the water". The Ojibwe arrived in Wisconsin and discovered many lakes and rivers that held wild-rice, a valuable food source. Albert Jenks recounted the importance of the migration story of the Ojibwe people.

Many Native American Indian nations harvested wild-rice for centuries along the rivers and lakes of Minnesota, Wisconsin and Michigan. The range of wild-rice includes the states of Minnesota, Wisconsin, and Michigan and also stretched as far south as Texas. This species found in Texas is *Zizania texana*. Although *Zizania aquatica* and *Zizania palustris* vary according to their habitat and range, *Zizania aquatica* is generally found in lakes and ponds, whereas *Zizania palustris* is generally found in rivers (WS310170). Although there are other species of wild-rice but for this research paper, the focus is on these two species because of the pilot study of *Zizania aquatica* in Ho-Nee-Um pond, and *Zizania palustris*, the riverine wild-rice, because this is gathered by Wisconsin tribal peoples.

Wild-rice is culturally significant for many tribal nations in Wisconsin, who use it in ceremonies such as weddings, funerals and namings, as well as for other community gatherings. Among the eleven federally recognized Indian tribal nations, the Brothertown nation (not federally recognized) who resided in Wisconsin at the time of writing, the six Ojibwe Bands, and the Menominee, Potawatomi and Ho-Chunk have ricing traditions. The formerly New York-based tribes, including the Oneida, and the Stockbridge-Munsee Band of Mohican Indians did not traditionally harvest wild-rice in Wisconsin.

Wild-rice gathering occurs in late summer or early fall when the mature plants are ripe with grain. Traditional harvesters use a two-person canoe with one person standing and poling; the other using knocking sticks to bend the wild-rice while tapping wild rice seed into the canoe (Vennum 1988, p. 81). The harvesting process for Native Wisconsin tribal nations consists of a long push pole that extends about 11 to 13 feet long. The wild-rice is knocked off the plant and into the canoe with two knocks of a knocking stick, and then one knock outside of the canoe to assist in reseeding this vital natural resource.

The seed is removed from the canoe and then placed on a drying mat to dry in the sun. The chaff is separated from the seed by dancers who are wearing brand new moccasins and are dancing on the rice. The wild-rice is parched in a kettle over a fire. The rice is constantly turned to prevent popping or scorching the grains. The rice is then placed in birch bark baskets and winnowed by throwing it into the air to rid it of the chaff.

> "You always think about others first. You always been told that you should think about those that are no longer here, or those ones that are going out there as well. Because my dad always said someone is always praying for you too. So you always ask for that. Think about one another" (WS310169).

Another tribe that harvests wild-rice are the Menominee. The name, Menominee, translates to "wild rice eaters" and signifies the importance of this resource to the tribe. The Menominee harvested wild-rice near the Wolf River and also experienced the loss of their wild-rice in the 1970s. The Menominee people received funding from the Wisconsin Department of Natural Resources, an NRDAR grant, to restore this culturally significant plant (Kassulke, 2006). One of the interviewees from the Menominee Tribe has been a valuable resource in establishing a website through the University of Wisconsin Stevens Point website sharing the origin story and other stories of the Menominee people. The website is titled the Menominee Clans Story.

(https://www4.uwsp.edu/museum/menomineeClans/origin/, accessed 5/1/18)

Relationship between science and traditional ecological knowledge

Science is a combination of data collection and observation within nature and the environment; (Oxford University Press) whereas, Traditional Ecological Knowledge encompasses the relationship between the cultural and physical world. (Kimmerer, 2002, p. 432). Science is working with the mathematical and technological systems to derive a data set of measured elements within the environment. On the other hand, "[TEK] is born of long intimacy and attentiveness to a homeland and can arise whenever people are materially and spiritually integrated with their landscape" (Kimmerer, 2002).

Introduction to Wild-Rice Threats

Wild-rice has slowly dwindled from the southern part of Wisconsin. Some of the main causes are due to logging, mining, tourism/recreation, invasive species, and urban development. This has affected the food security of indigenous people. “Three issues are intersecting right now that have huge implications for our peoples: declining world oil production, climate change, and food security” (LaDuke, 2008).

Issues facing wild-rice

As previously stated, in recent years, the wild-ricing way of life has faced adversity. Many factors have contributed to the reduction of wild-rice abundance, including human activities such as agriculture, mining, fur trapping, logging, and recreation, as well as human interference of planting nonnative species along with challenges such as animal depredation, invasive species, and climate change. The waters that support wild-rice face run off from agriculture fields primarily phosphorus and chemical additives.

Nutrient enrichment is also a major issue with respect to the runoff of both phosphorus and nitrogen. Excess phosphorus can create blue-green algae blooms which is toxic to humans and animals (MN pollution control agency, https://www.pca.state.mn.us/pollutants-and-contaminants/phosphorus). In some cases, iron sulfide in excess has posed a threat to the decline of the wild-rice population.

Fur trapping eradicated the animals necessary to sustain a viable ecosystem (Furbearer Conservation, p.1). The logging industry utilized the rivers and streams to float the logs through rivers and lakes to move the product from one city to the other, destroying the tender stalks as they traveled along the water. (https://www.wisconsinhistory.org/Records/Article/CS409 accessed 4/30/24). The recreation industry prefers that the lakes remain open for speed boats, leaving less space for good wild-rice habitat. In addition, dams have caused controversy concerning the depth of the water. Mining is a particularly detrimental factor threatening wild-rice as the effects of the mining industry include heavy metals and sulfide and sulfate additives added to the chemical makeup of the water.

Many families today participate in a traditional way of life, commemorated for example in community celebrations such as the Manoomin (wild-rice) Pow Wows on the St. Croix and Bad River Ojibwe reservations or in ceremonies. Communities are ceremonially acknowledging and respecting the wild-rice plant for generations to recall traditional ecological knowledge. Wild-rice continues to face many environmental threats and is in danger of being lost as will be outlined in further detail later on.

Mines that threaten wild-rice

Both the Menominee and Ojibwe (Chippewa) have faced issues with mining companies. For the Ojibwe, the Penokee Hills faced development from the company GTAC (Gogebic Taconite) to build a 22-mile sulfide mine with a lease covering 21,000 acres. The Ojibwe successfully defeated the proposed mine on March 3, 2015 following community resistance and increased pressure to ensure environmental safety and quality (Pember, 2015).

The Menominee Nation is currently opposing the Back 40 mine along the Menominee River in Stephenson, Michigan. The mining company is Aquila Resources, Incorporated based out of Menominee, MI. The proposed mining area is located at the headwaters of the Menomonee River, which is the very area which the Menominee origin stories tell us that the people emerged, and that area includes dance circles, effigy mounds, garden beds and wilderness. The proposed mine is to gather silver, gold, zinc, copper, and other minerals in an open pit mine, using methods that have poisoned many other rivers (Menominee Indian Tribe of Wisconsin, 2017).

The Menominee established approval from two states of Wisconsin and Michigan to list this site on the National Register of Historic Places (Kaeding, 2022). Opposers of this listing claim it is an attempt to stop the Back 40 Mine. The cultural significance of the site is to protect the headwaters of the Menominee River.

Wild-rice requires a slow-moving current with depth of 7 to 13 feet to avoid either flooding or lack of water in a given area. Over time, the abundance of wild-rice has slowly diminished in what was once a state with flourishing and prosperous rice beds.

Some tribal community members have been fighting threats to wild-rice such as mining for decades, and they wonder whether younger people will step up to continue the fight. Joe Rose, Sr., an elder, attended many Assembly sessions at the State Capital in Madison, Wisconsin to testify on behalf of preserving the wild-rice (Rose, p. 8).There is a glimmer of hope among the Menominee to be able to reestablish wild-rice in traditional areas. Some elders observed that wild-rice beds in locations that have minimal development produced tall stands. The survey results are complemented by a tribally based culture book, which highlights the story and process of harvesting wild-rice.

Statement of the significance or importance of the research problem

The research problem to my dissertation is addressing the significant decrease with wild-rice within the State of Wisconsin lakes. Tribes, alongside the State and Federal agencies, are working together to provide grants and opportunities to study and survey the lakes. Local restoration projects from Wisconsin tribes are determined to preserve a rich cultural way of life of planting and harvesting the wild-rice.

Ecological Significance

Misidentification is also something to consider when thinking about the disappearance of wild-rice. Wild-rice may have been misidentified as Sea Oats, or vice versa, or otherwise mislabeled. Organizations like the International Union for Conservation of Nature (IUCN) organizes the worldwide Red List of Threatened Species, in which there are levels for designating a species into the following categories: Endangered, Threatened, Least Concern, Special Concern, etc. across the entire range. At this time, wild-rice is listed as Least Concern with unknown data. (https://www.iucnredlist.org accessed 3/31/24). Nonetheless, the elders I interviewed see wild-rice as declining in abundance, and they are concerned about its future. "Three issues are intersecting right now that have huge implications for our peoples: declining world oil production, climate change, and food security" (LaDuke, 2008). This project also examines whether wild-rice is an endangered species. Merriam-Webster definition of endangered species is "a species threatened with extinction; broadly: anyone or anything whose continued existence is threatened" (Merriam-Webster dictionary, 2017).

Keystone Species and Threats

The muskrat dove at great depths to bring up the bit of mud that was used to create Mother Earth according to the Ojibwe origin story. The muskrat is considered a keystone species by tribal elders and has a direct correlation to the wild-rice habitat. Most of the general population dislikes the muskrat due to the damage done to shorelines with constant digging. If the muskrat population is destroyed, then ultimately what will happen to the origin story of the Ojibwe people. The muskrat is not only linked to the origin story of the Ojibwe, but it is also linked to the wild-rice. When the wild-rice is in the floating leaf stage, the muskrat eats the tender stalks and also swims among the leaves thereby breaking the leaves. The muskrat eats the wild-rice plants before they can reproduce.

Geoffrey Lord discovered that the disease *Echinostomum coalitum*, a trematode species commonly found in Wisconsin muskrats, was causing a decline in their population (Lord 1973, p. 18). In addition, the muskrats encounter Errington's disease as significant to their general decline in population.

Consequence of Losing It

Wild-rice is culturally important because it has been an integral part of many ceremonies and community events. The Ojibwe, for tribal example, process the wild-rice annually and, their oral history includes a warning that if the wild-rice disappears, so too will the world. When a community member was asked about the impact of modern industrial and recreational activities affected the rice her response was "I don't even think there is a big enough word for that. They killed! It's almost extinct! I don't know from the scientific point of view whether they managed, they somehow, whether that way of life was managed to genetically modify the rice…I would say that we have endangered another being meaning, the wild-rice plant people. Almost to extinction with that way of life. That's what I would say" (Lynn Johnson, p. 2).

A tribal community member indicated the significant change in harvest of wild-rice over the past few years. "When I've asked my uncle one time, I asked, uncle, when you used to go ricing, how was it when you used to go down river? He said, my boy, I can go down and get 500 pounds of rice in one day. I said, uncle, I can't even 500 hundred pounds in a week. He says, that's the big difference, between, he said, our communities now versus when I was growing up. It ain't that long ago. 60 years may sound like a long time, but it really isn't. He said, my boy, I never needed to bring water down river. I said, why is that uncle. He said, because that's what water is beneath you for, you drink that" (WS310169).

In an effort for a conservation effort, the Bad River tribe utilized an airboat to cut down all the vegetation within the wild-rice beds and to preserve the existing wild-rice.

> "And so the airboat went back and forth through their wild- rice beds and cut everything down. So, even the rice was cut down but there was very little rice to begin with because there were so many aggressive plants in there. So, as a follow up to that, we had to take all that was cut down out of there, because we couldn't leave it floating in the river. It may create these floating matte islands that would run right over the rice. So, what we did then, is we removed all of that and then purchased rice from the tribal members during ricing season and threw it back in those areas. The following year, it just, boom. Flourished. Will continue to do that here at bad river, until, you know, will probably keep managing it and send it on to the next generation to manage" (Edith Leoso, p. 5).

Cutting the wild-rice provided improvement for the following year as any invasive or aggressive plants were diminished. Another form of conservation effort included a prescribed burn of the wild-rice on the water.

> "I think they have been helpful. I think the idea though, we need, I think it's great we take into consideration some of these modern initiatives, but I also think it's important to think about some of those historical, or traditional we should be doing. One of the things I've heard growing up, all my life, but I've never seen done was, after wild-ricing for the year, a lot of our old ones would burn the wild-rice on the water, because it would help it (snaps finger) generate back faster for the next year. We don't do that anymore. I've never seen it done before. My uncles, my dad's oldest brothers, he says he remembers seeing that as a little boy. He said that it stopped a long time ago as well over concerns of how it would impact the other things. But, for that rice it was good. It kind of like when you burn grass, why is it good? It helps that grass (WS310169 p. 6).

Losing wild-rice would be similar to losing a part of a cultural way of life for tribal people who have harvested wild-rice every year. Traditional Ecological Knowledge from the elders indicates that science finds a solution to rejuvenate the seed base for wild-rice. A solution is to conduct an experiment for three to five years on a secluded lake with minimal human occupation, a prescribed burn on the wild-rice within a lake to indicate if the wild-rice thrives within that time period.

CHAPTER FOUR: ECOLOGICAL AND QUALITATIVE INDICATORS OF WILD-RICE

Wild-rice existed in all four corners of the State of Wisconsin extending from the north shores of Lake Superior to eastern Lake Michigan, to the central Great Lakes region to the western shores near the Mississippi River. Due to increased recreation on lakes, phosphorus run off from farm fields, introduced invasive species and potential mining threats, this vital resource remains in jeopardy of poor management. However, two Native American tribes in Wisconsin, the Menominee and the Ojibway, continue to implement indigenous methods of self-governance by securing their rights to hunt, fish and gather on lands to preserve wild-riding as life-long traditions. The goal of this research was to interview elders and community members of the Menominee and Ojibway tribes to identify key management styles and to address important concerns of wild-rice. In addition, wild-rice bed locations that have minimal development has produced tall stands.

The wild-rice research purpose is to gather information about the major concerns about wild-rice, gather origin stories and compose a dissertation on the findings of key areas for wild-rice future growth within their respective communities. Environmental research has allowed me to travel to Bad River, Lac du Flambeau, Menominee, Stevens Point and Madison to conduct interviews using open-ended questions with elders and community members who have traditional knowledge of wild-rice within their respective communities. The First Nations Development Institute provided a grant to gift cultural baskets to 11 elders within the Menominee, Ojibwe and Madison communities. Some elders have direct knowledge on harvesting, gathering, growing and preserving this vital resource.

During the interviews, the elders expressed their concern about the loss of wild-rice and the significance this plant has on their livelihoods. Potentially, the data contained within this dissertation are labeled as qualitative indicators based on Traditional Ecological Knowledge from elders and to create a data set about wild-rice and future insight into the conditions that are impacting the wild-rice beds. A qualitative indicator is defined as a subjective assessment that labels a specific characteristic that can measure wild-rice within the environment. (Logalto, help.logalto.com accessed 6.2.24)

I presented a poster at the Society of Ethnobiology and Society for Economic Botany during the summer of 2018 to raise awareness of the conservation efforts of two tribes within the State of Wisconsin. The wild-rice areas are considered sacred sites and has significant history dating back to the origin stories of both the Ojibwe and Menominee tribes. With respect to sacred sites, in October 2017, I published a short story in a two-time award from the Midwest Independent Publishing Association book titled Hidden Thunder: Rock Art of the Midwest. This short story is an expression of concern and the sense of urgency of the desecration of sacred sites. Wild-rice is sacred and faces various environmental threats, so that it needs protection.

Interviewing the Ojibwe and Menominee elders allowed ample space to freely discuss key issues facing wild-rice and the surrounding wildlife and community. Wild-rice continues to fight to maintain its sovereign right to thrive and live within the waters of Wisconsin. Accordingly, the elders suggested the following ecological indicators with wild-rice, the list includes the Red Wing Blackbird, the Muskrat, Fish population and Changing Landscape.

An ecological indicator is an "organism that gives us data about an ecosystem, such as its biodiversity. We use ecological indicators to gain information about ecosystems and our impact on those ecosystems" (MarketBusinessNews, 2024). After interviewing Joe Rose Sr. about key stone species such as the muskrat, red wing blackbird and fish, I developed a diagram to show the interrelationship these elements have with one another during the wild-ricing season. Joe Rose Sr., showed genuine concern about the red wing blackbird and the decrease in population along with the significant loss of the green or white worms within the canoe. I've included an extensive portion of Joe Rose's interview within my dissertation due not only to his traditional ecological knowledge of wild-ricing, but also his knowledge with ecological legislation that he fought for the wild-rice.

Since I interviewed Ojibwe and Menominee the names of the animals below are listed after the English named reference. The first word is written in English and the second word is translated into the Ojibwe language. The third word is translated into the Menominee language.

Red Wing Blackbird (asiginaak(na)) (blackbird na tūkaniq)

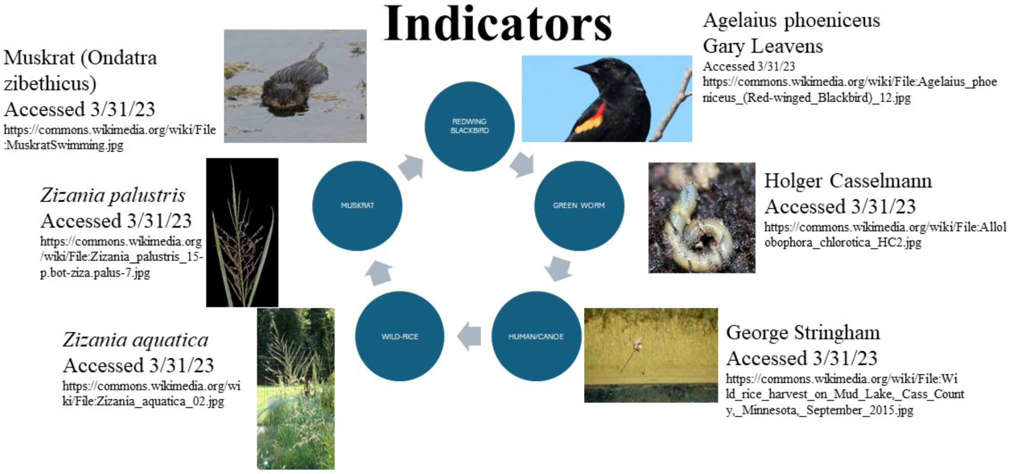
The habitat of the *Agelaius phoeniceus* (Red-winged blackbird) includes cattails, pondlily, pickerelweed, arrowhead near the spring area of New Haven, Connecticut (Robertson, 1973, p. 209-210). The red-wing blackbird's food source and main consumption include the lepidopteran larvae, arachnids, spittle insects and beetles (Robertson, 1973, p. 216-217). In addition, the water source is also important to replenish the food source for continued consumption. "This marsh has no flowing inlet, but in spring and early summer there is a trickling outflow, apparently fed by springs in the marsh. In some years the marsh dried up in late summer. This may account for an apparently low abundance of emergent aquatic insects in this marsh compared with Clarkes Pond" (Robertson, 1973, p. 210).

The loss of habitat, fauna and insects are indicators in conserving the red-wing blackbird population. This leads to the importance of Traditional Ecological Knowledge (TEK) and the observance of a reduction in the environmental landscapes. Through the TEK initiative to observe and notice either slight or major changes assists with wildlife management.

In addition, an elder from the Bad River Ojibwe Band of Lake Superior Chippewa reminisced about ricing at a young age and the indicator of red wing blackbirds within the lakes and rivers on the reservation. Primarily the red wing blackbird is located within marshy areas.

> "But, we had a lot of time back in those days. And so, we have been harvesting rice since I was 9 years old and my brother was 7 and so, it's something that, it's something that's a part of who we are and what we are. And what is really nice when you out there harvesting wild-rice, you see all of this wild life. All of these ducks and geese, and these little rice birds. And all of the big flocks of red-wing blackbirds. And in my lifetime, so much has changed. You don't see nearly the number of ducks, waterfowl that we would see years ago. And you don't see as many different species of waterfowl as what you saw years ago. And I remember, you would be in the rice field harvesting rice and every-once-in-a-while you would scare up a big flock of blackbirds. There might be 1,000 or 500 – 1,000 blackbirds in one of those flocks. And when they get up they would sound like a jet aircraft taking off, just the sound of their wings. And so now you go through the rice, you don't see all of the waterfowl that you used to see. You don't see the little rice birds. You don't see the red wing blackbirds or the shy pokes or the other water birds. Their numbers have decreased dramatically! I remember, oh, been six or seven years ago, my son and I were making rice over on Bad River slough. We came home and we laid it out on tarps to sun-dry" (WS310176).

Manoomin (Wild-Rice) Indicators



Muskrat (Ondatra zibethicus)
Accessed 3/31/23
https://commons.wikimedia.org/wiki/File:MuskratSwimming.jpg

Agelaius phoeniceus
Gary Leavens
Accessed 3/31/23
https://commons.wikimedia.org/wiki/File:Agelaius_phoeniceus_(Red-winged_Blackbird)_12.jpg

Zizania palustris
Accessed 3/31/23
https://commons.wikimedia.org/wiki/File:Zizania_palustris_15-p.bot-ziza.palus-7.jpg

Holger Casselmann
Accessed 3/31/23
https://commons.wikimedia.org/wiki/File:Allolobophora_chlorotica_HC2.jpg

Zizania aquatica
Accessed 3/31/23
https://commons.wikimedia.org/wiki/File:Zizania_aquatica_02.jpg

George Stringham
Accessed 3/31/23
https://commons.wikimedia.org/wiki/File:Wild_rice_harvest_on_Mud_Lake,_Cass_County,_Minnesota,_September_2015.jpg

Muskrat (waszhashk) (na oqsas)

While ricing in the fields, the community members noticed empty hulls and the loss of Muskrat population.

> "And we started scorching it and we were finding a lot of empty hulls. We got to thinking about that. You know, we don't see those great big flocks of red wing blackbirds anymore. And we used to say you have these little tiny worms in the rice. The little green worms, the little white worms and I think what is happening there is that was a food source for those birds that would feed on that rice. Now I've never seen this in any of the research or anything, but that's our feeling. And another species that has decreased dramatically is our muskrats. We used to travel down either Bad River or Kakagon River and there were numerous muskrat houses. And the wetlands of both sides of the river and you just don't see that anymore. Now those muskrats dive under and they eat a lot of different kinds of roots. And one of the problems we have now is that these pickerelweeds which are not an exotic, but a native plant are starting to crowd out a lot of the wild-rice. We think that maybe it's because we don't have those large populations of muskrats anymore. So, when it comes to the web of life there's so many different relationships" (WS310176).

Joe Rose, Sr., described the worm as a small caterpillar that was green. He described the worm on the plant near the seed head of the plant.

Fish (giigoonh) (na namaeqs)

The fish population decline includes the bass, perch, trout, and whitefish. The Bad River Ojibwe have diligently worked with the Wisconsin Department of Natural Resources (DNR) to work on calculating the population and conserving the areas for future fishing for Bass, Lake Trout, Whitefish and Yellow Perch.

Yellow Perch (asaawens) (na ayīqsawaeh)

Now years ago, one of our environmental specialists for Bad River DNR noticed that there was a serious decline in the yellow perch population. And then there's, I guess a little crustacean that grows on the gills of the yellow perch, it's not really a parasite, but then that falls off of the gills and that's what forms that ledge. And so, you have a deep channel there, then you got a ledge, the wild-rice grows inward from that ledge in shallower water. Now with the serious decline in that yellow perch population, that probably has something to do with the decline in the wild-rice. So, these are just things that we notice. I guess that call that TEK.

Bass-Trout-Whitefish (ashigan-namegos-adikameg) (na aqsekan- na namaekoh- fish na namaeqs)

And so, I think it was Wisconsin DNR that wanted to start a trophy bass fishery right out in Sand Cut Slough. So, you got a trophy bass fishery now. And I feel that it competes with the yellow perch. And so, we notice those things. As time goes on. And so, that wild-rice doesn't grow nearly as nicely as what it did years ago, it's pretty spotty now, compared to what it was when we were kids or even teenagers. And we notice that all of these different species of birds and fish and so on, are on a decline. Especially the native species that are threatened by these other species that are introduced such as these salmon that were planted in the Great Lakes and so on. The native species are the Lake Trout and the Whitefish. They are on a serious decline right now. So, these are some of the things that we notice. My son is a fisheries biologist for Great Lakes Indian Fish and Wildlife Commission and he is a young fisheries section leader for Great Lakes Indian Fish and Wildlife Commission. Right now, he is at a meeting in the Twin Cities and they are meeting with the Minnesota DNR and they are discussing the serious decline of the wildlife population in Mille Lacs Minnesota now. It's a pretty serious political issue over there. So, they have been meeting there, they will be meeting there today and possibly tomorrow. And so, they are working with Minnesota DNR and also GLIFWC, is really concerned about this decline in the wildlife population.

They haven't quite figured out what the problem is now. But one of the biggest problems is there, is that that fishery is producing plenty of fry, little ones, but there's a certain age class that doesn't survive to spawning stage. And so, they have a lot of zebra mussels there, that's a new exotic. You have climatic change. The last three years have been pretty serious that way. And 2013 and 2014 they had a late ice off season and so that fishing season for tribal fisherman lasted only about a month. Now last year, they had an early ice off and that fishing season only lasted about a week. Now, since there was a serious decline in those fish over there, then the Wisconsin tribes that normally go over and fish that spear or net in Mille Lacs, they backed off and still in all, the hook and line fishery, the non-native fishery I guess exceeded their quotas there.

There's a serious problem over there. They are trying to figure out all the different factors. And I guess, the northern pike population is up. The bass population is up. Possibly those could be in competition with the walleye population there. And so, they are doing a lot of research now with the electro shocking boats and there are trying to figure out what the problem is now. So, they had to close that season down early over there. So, these resort owners and these tackle shops and everything are really concerned because they are losing money, I guess. So, it's a heavy-duty political issue over there. And in Lake Superior, there is a serious decline in the lake trout population here right now. And we are having meeting like that too. Not just with inland fisheries, but the big lake. And so, these are some of the things that we have to deal with" (WS 310176).

Changing Landscape

Tribal members from both Menominee and Ojibwe mentioned how the lakeshore and shoreline areas may have an impact on the wild-rice stands. In the following excerpts, both tribal members are recalling a time of little development with a reservation that includes 250,000 which is only used for harvesting the hardwoods for production. The other tribal reservation includes a vast wilderness of many areas that remain untouched from housing or other recreational options. The Ojibwe community members ecological knowledge recalls the height of the wild-rice while the Menominee community member describes the 250,000 plus acres of wilderness and the lack of community dwellings of houses and various complexes.

> Ojibwe: "Well, when those lakes and rivers freeze up that have the rice, we have snowmobiles and we have boats in the summer, you know. The exhaust and the runoff from the farms, the so-called green lawns on people's properties that effects that Manoomin. Some of the most amazing rice beds I've seen, were on lakes with no houses. There's one lake that we went to this fall, that didn't have any houses on it and that rice was over 12 feet tall. And I attribute that, that clean environment around that lake, there's no houses within maybe like 8 or 9 miles of that lake, that little pond. And like I said, I was standing, I'm tall, I'm 6"3'. I was standing in my canoe, knocking the rice and I've never seen that before. We restrict boats, we restrict motor boats, snowmobiles and a lot of other gas operated recreational vehicles within a certain area of that wild-rice wetland. We know for a fact because what we saw, this fall, past fall and in the past, that rice prefers clean, it prefers healthy and that definitely does affect the quality of the bed of the wild-rice which

> then affects the harvest by the Ojibwe people. So, there is a correlation there. We understand as traditional harvesters, a better bed is a way from that kind of nonsense" (WS31078).
>
> Menominee: "Well I think the Menominee reservation is special because it's an area that is not been really touched or affected by the outside as far as the environment. The trees and plants, we still have a lot. I think the Menominee reservation looks the way it is now as it did years ago. Because all around us, everything is cut down. The trees and that all the plants are gone. But here on the reservation it's different. We still have the nucleus of what was here thousands of years ago" (WS310182)

The following diagram represents data collected from the wild-rice interviews that assessed the core values and concerns received from the first and second coding. I decided to title this figure Microcosm. The word Micro refers to the smallest element or the seed as this is the smallest element in the larger framework of the wild-rice plant. The diagram serves as a picture of the wild-rice and the circles are the seeds. The seed circles serve as a symbol of all the values wild-rice creates for the community. As each seed falls into the water, the seed nurtures that water and maintains the sovereignty of the wild-rice plant which creates balance with the relationship between the plant, water and animals. These seed circle words were generated from all the main concepts from all the interviews with elders and community members of the Ojibwe and Menominee Nations.

Figure 1

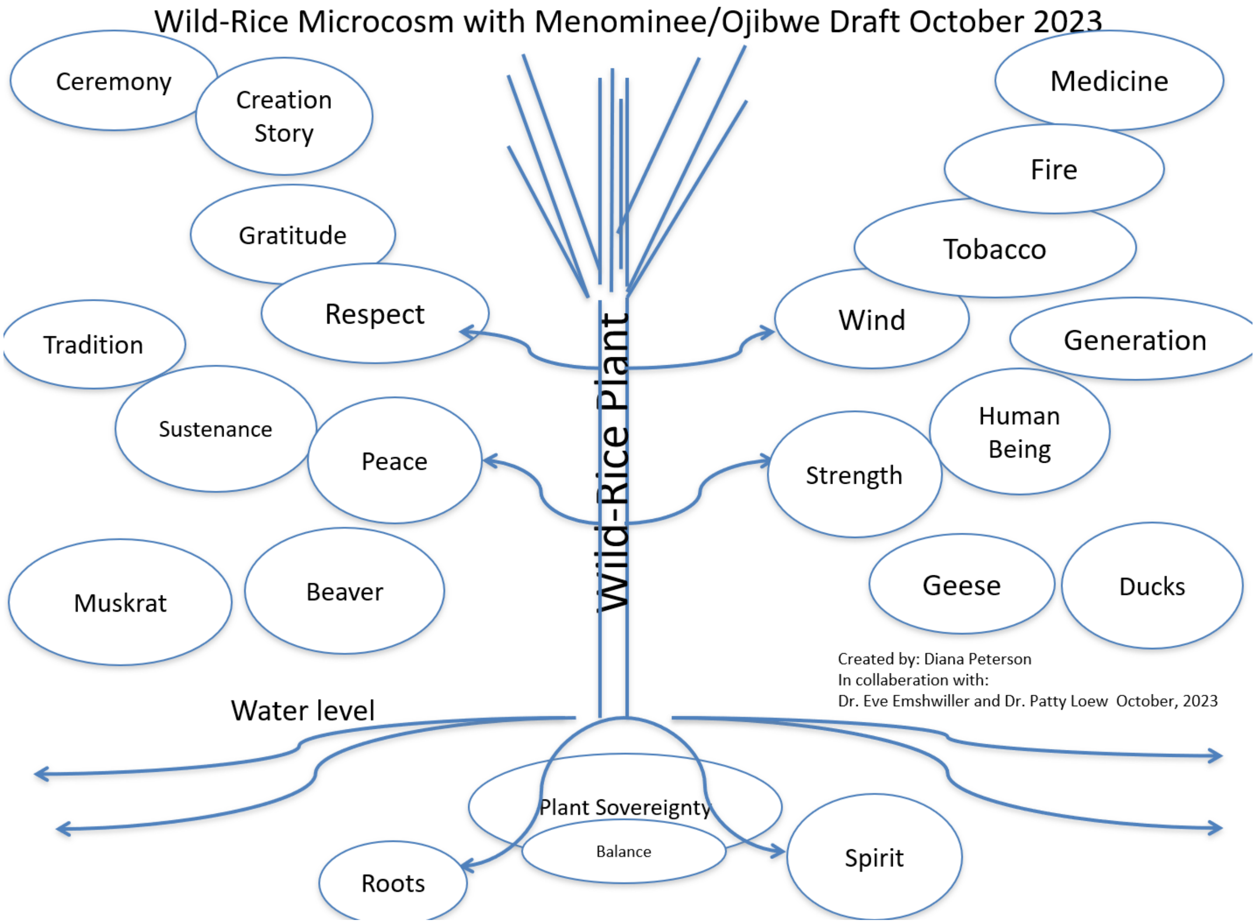

Wild-Rice Microcosm with Menominee/Ojibwe Draft October 2023
Ceremony
Creation Story
Gratitude
Respect
Tradition
Sustenance
Peace
Muskrat
Beaver
Wild-Rice Plant
Medicine
Fire
Tobacco
Wind
Generation
Human Being
Strength
Geese
Ducks
Water level
Plant Sovereignty
Balance
Roots
Spirit
Created by: Diana Peterson
In collaberation with:
Dr. Eve Emshwiller and Dr. Patty Loew October, 2023

Figure 1: The wild-rice image above depicts a significant relationship between the Native American people and the wild-rice plant by showing words that are expressed during ceremonies and community gatherings of both the Menominee and Ojibwe tribes in Wisconsin. The list of words can be extensive as more descriptive words can be added. The circles around the culturally significant words represent the imagery of seeds of the *Zizania aquatica* wild-rice species. These words are symbolically dropped into the water as a symbol of providing sustenance for the next wild-rice growing season. The elders and community members discussed at great length the importance of wild-rice within the tribal communities. “Then there was a prophet that came among them, that received messages from the spirit world. And told them that they should prepare for another migration journey that would take them back to their original lands” (Rose, p. 1) (WS 310176)

“The Ojibwe journey started in New York and arrived in Wisconsin by traveling through eleven locations to eventually find the place where food grows on the water. The eleven locations included: St. Lawrence River, Niagara Falls, Detroit, Manitoulin Island, Sault Ste. Marie, Duluth, St. Louis River, Spirit Mountain, Maninganaqaning, Island of Yellow Hammer and Madeline Island. “And the Métis appeared there for the seventh time up at the shores of Madeline Island. So again, they sent their scouts across the waters. Across the Long Island into the Kakagon Sloughs and they found the manoomin, the wild-rice growing more profusely” (Rose, p. 2).

Culturally, wild-rice connects families together as social gatherings allow families to bake creative dishes and to allow the opportunity to share the harvest with the local community during pow-wows and special events. After speaking with a local Chief, he expressed the beauty of the origin story and how those wild-rice seeds carry on with the next generation. “Because it is one on one. It’s like culture. It’s like language. They’re the same. Can’t separate the two. From my perspective, wild-rice is a part of us. Always has been, always will be. Currently, will always be in the future” (WS310169).

Wild-rice, or Manoomin, existed throughout Wisconsin extending from Lake Superior in the north, to Lake Michigan in the east, and to the shores of the Mississippi River in the west. This vital resource remains in jeopardy due to increased recreation on lakes, phosphorus run off from farms, introduced invasive species, and potential mining threats. However, two Indigenous nations in Wisconsin, the Menominee and the Ojibwe, continue to implement indigenous methods of self-governance by securing their rights to hunt, fish and gather on their traditional homelands, by preserving wild-ricing as a life-long tradition. The TEK survey included interviews of elders and community members of the Menominee and Ojibwe to identify key management styles and to address important concerns about wild-rice. The elders highlighted the cultural importance of wild-rice, such as in traditional stories, and they expressed their concerns about the disappearance of wild-rice and the potential loss of their cultural identity and traditions. Some have been fighting threats to wild-rice such as mining for decades, and they wonder about whether younger people will step up to continue the fight. There is a glimmer of hope among the Menominee to be able to reestablish wild-rice in traditional areas. Some elders observed that wild-rice beds in locations that have minimal development produced tall stands.

CHAPTER FIVE: A WILD-RICE INTERVIEW ANALYSIS AND RESULTS

My dissertation argument began with asking the following; are seed bearing plants considered sovereign beings? According to the rights of nature article, I am presenting the legal argument to consider wild- rice as in animate object, as a living plant living within and utilizing the chemical composition makeup water, hydrogen and oxygen, as a basis for its existence. Within the Rights of Nature article, Huneeus (2022) presents the legal perspective of nature. "Legal standing for 'the inanimate object about to be despoiled, defaced, or invaded' would allow third parties who know and understand the ecosystems to have a voice, leading to a better decision-making process" (Huneeus, 2022, p. 142). I am presenting an argument that wild-rice is an animate object, a living sovereign being functioning as a sovereign freestanding plant.

After interviewing tribal members on wild-rice, an indigenous perspective is to respect the plant as a living sovereign being. "We look at the plural form, that's when we find out if it's animate or as in our case, it has a spirit. The answer to that question is yes" (WS310178, Biskakone). Wild-rice has been a generational food source for both the Menominee and Ojibwe nations. The harvesting tradition has been passed down from generation to generation to include the sovereign right to sustain itself along with guidance and support from conservation and human population.

> "All focus on a particular natural entity, such as a river or wild rice, and its significance to their people. They make reference to tribes' long-held traditions and worldviews, with emphasis on the special relationship the people hold with the natural entity. In this way, the laws act as an expression in written law of long-held tribal norms and as a way to communicate these norms to others" (Huneeus, 2022, p. 154).

The diagram that I drew highlights the main values of the tribal indigenous perspective.

This is a glimpse into a small fraction of one plant contained within an entire ecosystem. “Rights of nature in Ecuador are most often described as articulating Indigenous world views, or cosmovisiones, but they were also prioritized by other groups” (Huneeus, 2022, p. 146).

In addition, another tribal member from Bad River discussed the relationship of a living being and its connection to water.

> “You know, where it came from and how it came to life and that’s the difference. It isn’t just seed, but it’s water. I mean when you think about water, you think about, water needs pretty much the same stuff we need as human beings. It needs oxygen, right? And just like us. We need oxygen. So tell me, that is a living entity there, that it is living, breathing entity. No different than me standing right here. So, why should I treat that any differently? The same thing for crops. For different plants, living, breathing” (WS 310177, Leoso). Scientifically, the concept that wild-rice is a living breathing plant, expressed by Leoso, wild-rice is supported by oxygen. “Many aquatic plants transport oxygen from the atmosphere to the roots through porous tissue called aerenchyma” (LaFond-Hudson, Johnson, Pastor, Dewey, 2018).

Research methods

This chapter is based on the interviews with the elders from the Ojibwe and Menomonee tribal communities. The discussion topics for the coding of the interview data set analysis includes areas of ancestral ties, changing landscape, bartering, community based, cultural preservation, extraction, family and communal traditions, identity, invasive species, and origin stories. There is also information and components of wild-rice as art, wild-rice and ceremony, wild-rice as commodity, wild-rice as community-based, wild-rice for gifting, wild-rice as medicine, wild-rice as process, wild-rice as a relative, wild-rice as sacred, wild-rice for school youth harvest, wild-rice as sovereignty, wild-rice as a superfood, wild-rice and sweat lodge, wild-rice as threatened, wild-rice as tobacco offerings, and wild-rice as youth lack of interest. The information is organized into datasets and works through the community input of value-based information and collected for qualitative data sets utilizing Johnny Saldaña coding techniques.

Figure 2

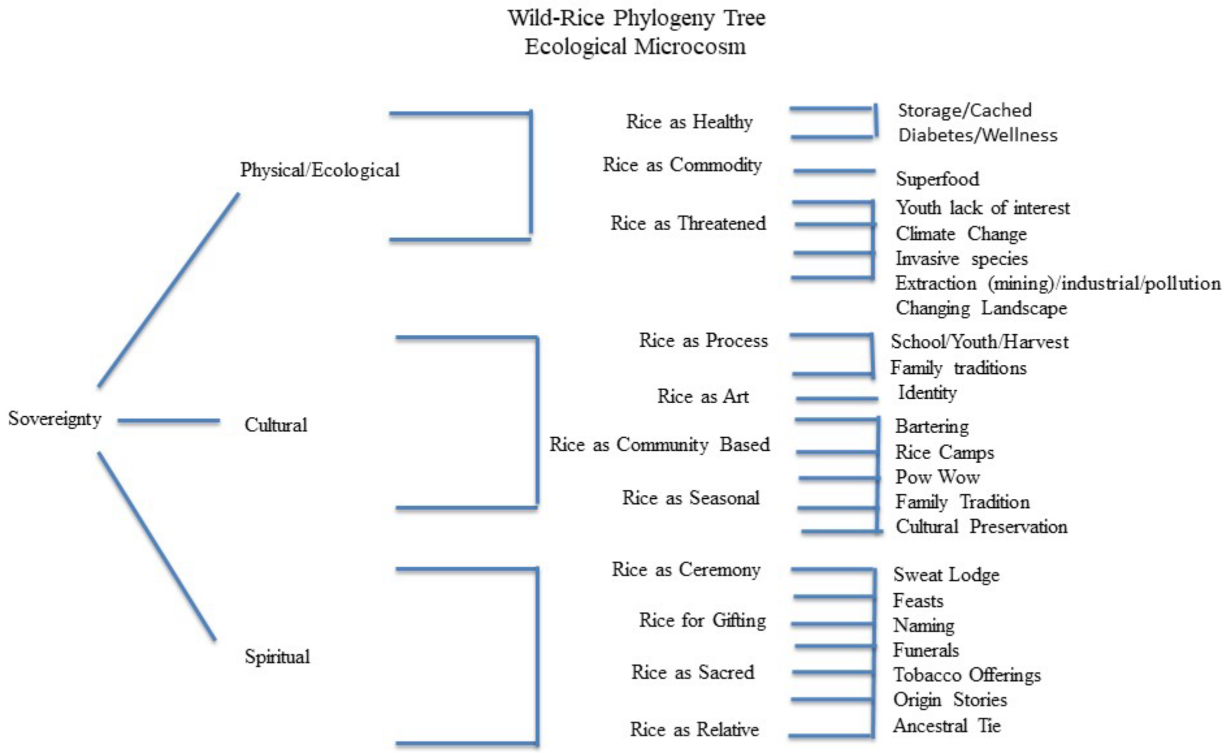

Wild-Rice Phylogeny Tree
Ecological Microcosm
Sovereignty
Physical/Ecological
Cultural
Spiritual
Rice as Healthy
Rice as Commodity
Rice as Threatened
Rice as Process
Rice as Art
Rice as Community Based
Rice as Seasonal
Rice as Ceremony
Rice for Gifting
Rice as Sacred
Rice as Relative
Storage/Cached
Diabetes/Wellness
Superfood
Youth lack of interest
Climate Change
Invasive species
Extraction (mining)/industrial/pollution
Changing Landscape
School/Youth/Harvest
Family traditions
Identity
Bartering
Rice Camps
Pow Wow
Family Tradition
Cultural Preservation
Sweat Lodge
Feasts
Naming
Funerals
Tobacco Offerings
Origin Stories
Ancestral Tie

Figure 2: This diagram shows the values and concerns identified in the interviews and how they are sorted into categories based on the first and second coding processes. This model is described of what it is and how it was made. After transcribing the interviews, common themes were addressed by reviewing similar phrases and words from each participant. Coding addressed the main ideas and thoughts including placing the information into categories: core themes included, spiritual, physical/ecological and cultural. Subcategories were then added from the spiritual component to include wild-rice as ceremony and wild-rice as sacred. Additional categories were derived and were placed into the subcategory wild-rice as ceremony to include: funerals, naming ghost feasts, sweat lodge and rice as art. For wild-rice as sacred, this included rice as a relative, tobacco offering and origin story.

The following categories were placed into categories in Figure 2, above, from the wild-rice interviews. Each category discusses key elements for further discussion.

Ancestral Ties

The interviewees discussed the importance of land and home ownership in relation to ancestors, living with traditional values, and spiritual ties to mother earth. The section primarily discusses the value of hunting, fishing and gathering wild-rice during the ancient ancestral traditions.

One of the interviewees talked about their grandparents and the importance of passing tradition to the future generation with relationship to the wild-rice. Many interviewees discussed memories from the 1960s and 70s and the relationship their family had with the environment and wild-rice. One particular memory shared was the visual of watching steam roll off the lake, with boats waiting in the mist. Another elder talked about her grandfather who was a chief for the Bad River Band of the Lake Superior Tribe of Chippewa Indians. While talking about her generation, she shared the concern of passing traditions on to the next generation and the stress of potentially letting her grandfather down by not wild-ricing. Another interviewer reminisced on how his mother used to prepare and pack an entire day's food for him to be out in the water for long periods of time. For him, gathering wild-rice is not an individual practice or about individual value, but is about familial and communal connection and support. The point here is to understand that a relationship with wild-rice with one value that engages the plant as a relative. The majority of the time, Mother Earth and wild-rice are looked at as objects rather than understanding the spiritual relationship and connection to wild-rice as family.

Interviewee WS 310180 had a discussion about dreams, specifically his dreams about wild-rice. In the dream, he was very young, riding in a canoe on the north end of Lake Winnebago, and all they could see was wild-rice. He talked talked about how, through his life, he was always drawn to water, in particular the springs that were near Williamson St. in Madison. He learned that wild-rice had once grown at each water source he visited, and he knew that his dreams were directly tied to his ancestors and Menominee relatives.

Bartering

Bartering is a form of even exchange within our communities, and it is used in the wild-rice harvest and preparation process. For example, it ensures that community members receive a benefit for working and gathering wild-rice. Or, if a tribal member has an abundance of wild-rice and another community member has tobacco, Maple syrup, sage, for example, the community members can barter to receive wild-rice for a basket of traditional foods or other items. Interviewee WS 310169 referred to the essence or spiritual nature of wild-rice. Wild-rice is giving to us, so it's always important for us to give back. Giving back to the community is essential not only for traditional importance but for sustaining a cultural way of life.

Changing Landscape

Several interviewees talked about the various environmental changes that occurred over time and some of the main indicators that pointed to issues for growing and harvesting wild-rice. For example, Joe Rose, Sr. talked at great length about his major concerns about the Red Wing Blackbird and how was seeing significantly less ducks than in previous years. When Joe would be in the field harvesting the wild-rice, he would scare up a big flock of black birds. At that time which was about maybe a decade ago, he said there was between

500 to 1000 blackbirds in one flock. He recalled that their wings sounded like a jet flying overhead as he canoed through the wild-rice. Furthermore, he mentioned a decrease in waterfall in addition to the little rice birds, which he called shy pokes, and other water birds. Another major indicator and concern for Joe was related to a correlation between empty halls at the time of parching and scorching the wild-rice and the decrease in Red Wing blackbirds. He said that the empty halls, which refers to a lack of worms in the rice, meant that there was a lack of food for the birds as those worms were an important food source for them. Another significant indicator was a dramatic decrease in the muskrat. "However, several hypotheses are plausible. For example, wetland loss, wetland isolation, and changing patterns in hydrology may be affecting key population demographic parameters such as survival and population growth" (Bomske, Peek, Ahlers, p. 43). During an interview with Joe Rose Sr., he noticed a change in muskrat population, but it was due to trapping from a neighbor as the neighbor found them as a nuisance.

Interviewee WS 310176 discussed the decrease in the yellow perch population. According to the environmental specialists at the Bad River Department of Natural Resources, there were noticeable growths on the gills of the yellow perch. This interviewee suggested there may have been a direct relationship between the decline in wild-rice and the yellow perch population. Additionally, the interviewee discussed the increase in the Pike population and the decline in trout in Lake Superior, which is a major concern for the community near the Bad River Reservation. These elders and interviewees drawing connections between the environmental shifts and decrease in wildlife and plant growth represents a form of traditional ecological knowledge production (TEK) through the Ojibwe people.

Wild-rice functionality contains its own filtration system. The plant itself assists with eliminating pollutants and filters out the man-made elements. Tribal member WS 310178 Biskakone from the Lac du Flambeau reservation talked about how some of the most beautiful rice beds are on lakes that have no houses. This small pond that he harvested from had no development within maybe 8 miles of the lake. Standing 6 feet 3 inches, he talked about how he was able to knock the rice, which was very tall in comparison to other lakes that he had harvested on. Biskakone talked about Cheelah Lake and how community members harvested both rice and geese. He discussed how something happened that caused the wild-rice to no longer grow on that lake, and there had been many attempts to try to revive the wild-rice system. They introduced man-made dyke systems, and after one year of wild-rice growth, the wild-rice never grew again.

Water Movement and Invasive Species

Another indicator that was introduced and brought forward by Dana Jackson is the movement of water. Dana raised concerns about some of the lakes were stagnant, having less movement and water flow, which is essential for wild-rice growth. Additionally, he shared that water stagnancy gives the wild-rice a muddy taste. One tribal member discussed the importance of water flushing in from Lake Superior, The Kakagon Sloughs. The tribal member talked about how this gentle action of water movement provides the tastiest and freshest wild-rice in the area. The tribal member also talked about the importance of clean water.

The primary concern for Dana is the narrow-leafed cattail, which is encroaching on the wild-rice beds and is considered an invasive species. Because of how this plant produces heat, Dana suggested that it could be used in an earthen berm to provide heat to home. Dana raised the question of whether this cattail would be still considered an invasive species or as a potential product that could be used sustainably for generating heat for homes.

> "A lot of the inland lakes, the water is kind of stagnant. Some places is flowing by a river or something like that, but a lot of inland lakes, it doesn't move much. The water. And here our water comes in and washes our rice several times a day. We put what they call a sage, we call it a tide. The water, in the morning you like to see the water coming in, later on, you'll see it going out, then later on you see it coming in" (Jackson, 2).

Wild-rice is in a battle with so many environmental factors of water acidity, alkalinity, and climate change conditions. The wild-rice is an annual crop so it varies from year to year and scientists need to assess a database from year to year on its variability and measure out any increase or decline with this valuable plant. WS 310170 talked about the Lac Vieux Desert restoration project for wild-rice. Due to the restoration project, the muskrat returned and the Swans came back to that particular wild-rice place.

WS 310180 talked about four different factors that are important about wild-rice. The first factor is that it is considered a native plant and is harvested the last couple 100 years and is also native to Wisconsin. The best thing is to have awareness of this vital plant. The second thing is that it may be considered endangered as it's almost considered invisible. The third thing is to recall the places of the wild-rice with respect to where indigenous people had stayed or lived at one time. And the fourth element is to understand the plant as an individual being.

Interdependence and Connectedness

WS 310180 also talked about the importance of the connection between wild-rice and people. When discussing the endangerment of wild-rice species, his suggested that this could also affect other beings in the future, like the wild-rice plant people. This speaks to the interdependent nature of wild-rice plants and people, and this relationship is vital to the future of wild-rice beds. One other tribal member talked about wild-rice as being a lifeline and essential to community gatherings and community membership. One interviewee described that the Menominee reservation has significant number of trees and plants that grow on the reservation. The tribal member was adamant and said to look around outside the edges of the reservation to notice that all the trees and the plants were cut down and are gone. We can now see and observe that on Google Maps today. The Menominee reservation was established in 1854, and there is more timber present today. This a sign of sustainability and longevity for the Menominee people, reflecting the interconnectedness of plants and people and the importance of passing on Indigenous knowledges and practices.

Wild-Rice as Community-Based

The next indicator is community-based and assesses the balance between individual and community initiatives to sustain and preserve the wild-rice. The primary message for community based wild-rice is to sustain and maintain the plant for the next generation. One tribal member talked about how it was not as abundant, and the next day it flourished through a restoration effort on the Bad River Reservation. This tribal member was excited to think about the next seven generations and plan to manage and maintain the abundance to continue their traditional way of life. An important aspect of wild-rice is its nutritional value; it is a healthy and good grain to eat. The tribal member became emotional because of sharing her memories of harvesting the wild-rice with her family. Her main concern is to engage and encourage the youth to harvest wild-rice and to take the time to learn about conservation and preservation efforts to keep wild-rice growing for the community. When ricing, many thoughts are directed towards the family unit to provide an abundance of wealth, which is not necessarily looking at the monetary value of how much is grown, but the cultural and immeasurable elements of the wild-rice.

Discussion also flourished about the planting season, specifically about how tribal members were allowing the plant to stand fallow in certain areas and in other areas they were assessing and gathering the best seed for the season. One of the community members talked about the wild-rice surveys and how much of the harvested rice was green versus how much of the harvested rice was mature and dry. The plant's wild-rice is a wonderful, giving plant, and it is up to us to return the favor for wild-rice to stay in abundance for the community at large. In reference to community at large, this is assurance for providing sustenance for not only the people but for the four legged and winged ones, to allow the survival for their communities as well.

Ceremony

Wild-rice as related to the sweat lodge or ceremony is powerful because of its a direct relationship to sacredness and cultural identity.

Culture Preservation

Cultural preservation is an essential assessment tool for any community that is focusing on retaining a cultural way of life. The interviewees discussed tradition, the next seven generations, and self-preservation. Discussion around our youth is crucial in preserving a tradition and the cultural aspect of gathering and harvesting the wild-rice each year. The cultural preservation also had discussions surrounding tribal origin stories and stories of family on how to feed a large number of people from children to grandchildren and great grandchildren. The elders were primarily the individuals who went to the wild-rice beds and checked to see if it was time for harvest. The elders primarily work with the youth to assist in teaching them how to gather wild-rice and to connect with nature. The elders are humble with passing on their traditional ecological knowledge to the next generation by continuing community-based traditions in order to preserve a cultural and sovereign way of life. In a sense, this merges both community-based and cultural preservation sustain a sovereign way of life. Elders came forward after a harvesting season and gave wild-rice to families who participated in harvesting after they were out on the water.

The major concern within cultural preservation is reintroducing native foods into our diet. This includes trying to introduce new recipes but to not forget the natural foods and the indigenous recipes from our elders. There is an upsurge in restoration efforts for the wild-rice. This is working with professionals who are biologists and land preservationists who can monitor the successful rate of the wild-rice plant on a regular basis. One of the elders talked about politics of wild-rice, and the concern for rice management. Management is crucial in sustaining the preservation and restoration efforts for natural preserves on the reservation and off.

Extractive Industries as Threats (mining and industrial agriculture)

Another major component is the topic of extraction. This particular assessment included a vast number of concerns with relationship to mining and also some of the legislation passed to maintain and build upon a cultural way of life. This is crucial to substantiate the significance of a sovereign plant for not just one community, but many. There is legislation on the docket in both Minnesota and Wisconsin for a potential crop in the future. The major concern with extraction is the issue of patenting or genetically modifying the wild-rice. The mining aspect is only one aspect of the problems surrounding wild-rice. One community member, Joe Rose, Sr., discussed how hearings were held in communities where there is a potential for mining. The communities that would be impacted had to travel great distances for their concerns to be heard.

These threats included the GTAC Gogebic Taconic Mine project, which proposed a nuclear waste dump, a garbage incineration corporation, and a potential local landfill in the vast area of the upper northern area in Wisconsin. When you travel from Mercer, WI to Bayfield, WI, majority of the area is untouched and remains pristine wilderness. But surely the forests have been managed by the Ojibwe and Menominee Nations for centuries or millennia. Time and time again companies have come forward to propose different elements to be placed on sacred land that is intended for all of us to enjoy. Joe Rose, Sr., primarily discussed the toxic elements of the particulates in the air and water, and his key concern is that we as a community are downstream and downwind from these elements. Another concern for the elder was the water supply because mining corporations have to utilize our waterways to sustain the mining operations. However, when the waterways are used in this way, there is a major concern of fish kills and algae blooms that can occur in the lakes and rivers over time. Indeed, the most toxic form of algae is the blue-green algae that can be seen on the water. Fortunately, The Ojibwe were able to defend their land, environment, and water rights from GTAC with encouragement and camaraderie from community members from different organizations and local communities from northern Wisconsin.

Another potential impact of extractive practices is genetically modifying wild-rice vs. seed sovereignty, which is of great concern to community members. One tribal member talked about how creator assisted in giving us the plant as is, but there are efforts to manipulate it and make it something else. Genetically-altered food faces great opposition form tribal communities. One of the other main issues that impacts wild-rice is a disease that is known as the brown spot disease. During warm weather it occurs more frequently, and the extent of outbreak is a lot higher. Local tribal communities and leaders work with DNR representatives to understand the validity and also some of the concerns of protecting that rice.

When considering how to fight the potential effects of extractive practices, is it important to turn to traditional ecological knowledge and indigenous knowledge systems, often time listening beyond books. In asking ourselves how we can keep the rice bed alive, and resist practices that destroy them, we should hear from mother earth and follow her love for that sovereign plant. In this aspect, then it's considered important in all aspects of economic, cultural, social, and communal life.

Family Traditions

Each year, families hunt and gather and sustain the wild-rice as part of tradition dating back to the early 1900s. Wild-rice knowledge is crucial to pass on to the next generation. The challenge is utilizing traditional methods while maintaining a balance between the spiritual, cultural and outside worlds. Integral to this is prioritizing a kinship with all elements – water, animals, plants, and people. WS 310169. . One important aspect of gathering the wild-rice is the place tobacco or asemaa out into the elements to give thanks for the land spirit, the water spirit, the animal spirits, and creator. This is giving thanks to creator for providing a plant of sustenance and to acknowledge the fact that this plant is providing a sovereign way of life to continue a traditional heritage to pass onto the next generation.

One aspect of the family traditions in wild-ricing includes gathering wild-rice in the canoe and having all six senses of awareness of the environment. One of the community members talked about the importance of smelling the wild-rice to know whether it's time for the rice to pop up from the floating leaves stage and stand upright into the water. Tribal members who gather wild-rice every year are aware of each stage of development for the wild-rice plant, and scent is most prevalent in the plant’s growing stage and can be used to determine when to harvest. The scent of the plant during the flowering stage is one way to know when to start gathering the wild-rice.

In one interview, a community member discussed his eagerness to gather the wild-rice. He woke up at 2:30 in the morning and went to wake up his father. His father is one of great patience, and he told his son that he should go back to bed – it was too early for them to gather the rice.

Feasts

Another qualitative indicator is the topic of feasts. The origin story is always shared at important events in the community because of it captures their migration story from the mouth of the St. Lawrence River in New Brunswick in coastal Canada to Wisconsin. Although storytelling primarily occurs during the winter months, some tribal nations continue sharing the importance of some of the stories, though not at great length, because it is important to retell the story during the harvesting and gathering of the wild-rice. The wild-rice ceremonies and community celebrations take place yearly, showing respect to the water in both the spring and the fall. In the spring, the wild-rice is also given thanks for providing protection for the water and for all the things that are done on the water. This is an important aspect to consider with the relationship between the spiritual and the scientific worlds with respect to protecting the water and the rice harvesters.

In addition, wild-rice is used for other community-based events like funerals. In some of the interviews wild-rice is considered a relative, more on the issue of an important family member that is honored for those that are traveling to the spirit world. Wild-rice has always been a common food item at funerals.

Identity

Wild-rice plays a role in identity-formation and secures our place within the environment. The interviewees discussed at great length the commitment we have to the next seven generations and the ethics for the environment, including the Anishinabe people and the culture and traditions that are passed down. There are many Ojibwe nations in Wisconsin, Minnesota, Michigan, and Canada. Our roots and our cultural identity are tied with our relationship to our land and territory. One community member discussed how they grew up in Wisconsin and are considered a native of the area; however, he did not grow up with the stories but knows friends and relatives who are aware of the oral traditions and the stories. For the Menominee people, identity exists within the word of wild-rice since they are also known as the "people of wild-rice."

Wild-rice is subjected to invasive species within the water element. There was a great discussion about one of the keystone species, which is the muskrat. A keystone species is defined as a major species to an ecosystem and without this species would cause a great disruption within that ecosystem. The muskrats are essential since they dive for the root system of the wild-rice. One tribal member noticed that the plant pickerelweed is abundant and is crowding out the wild-rice. They are concerned that this may be why the muskrat is lower in population and it's due to the low population of wild-rice in the water. WS10176.

One of the invasive species around wild-rice is the zebra mussel; it is one of the biggest problems within the fishing industry. In one interview it was interesting to hear about the concept of invasive species. In the conversation there was discussion about what an invasive species actually means and how this could potentially be something that could be utilized or we could work with the particular plant. The reasoning is that the plant had landed in this area and discussion surrounded about how it was transplanted here and hopefully there is a usage for that particular plant. The main concern is about the brown spot disease and how to eradicate this particular condition on the plant. One thought is that it is taking out the seed production and looking for ways in order to assist in helping the plant to fortify itself. If the brown spot disease is on the wild-rice plants the concern is trying not to use a chemical treatment on the Manoomin beds of wild-rice.

Origin Story

With respect to the origin story, wild-rice is an important part of two migration journeys. One from the Great Lakes to the eastern shores of the Atlantic Ocean and the second from the Atlantic Ocean back to the original homelands of a place where food grows on the water of the Great Lakes. There are different variations to the migration story. Joe Rose, Sr., shared how the eastern area, known as the great salt-water barrier, or the Atlantic Ocean provided seafood, gardens, and a good life. The Anishinabe people fell upon hard times near the Atlantic Ocean, and there was guidance from the spirit world that wanted the Anishinabe to journey back to the original lands near the Great Lakes. The Anishinabe prepared for this second journey to take them back to the original lands of the Great Lakes.

The spiritual leader discussed a turtle shaped island and to follow the Magus shell that would guide them to a place where food grows on the water. The first stop was along the Saint Lawrence River, the second step was the great thundering falls of Niagara Falls. The third stop was in the location of where Detroit is today. Following Detroit was a place called Manitoulin Island. The next stop was along Lake Superior near what is Duluth, MN. The next area included areas along the Saint Louis River. The prophecy to find the place where food grows along the water, is to locate the wild-rice at one start of the island to the end of another island. In addition, the magus shell would appear for the 7th time. This is located near a space that's known as Spirit Mountain. This is a similar space called maninganaqaning. This is known as the island of yellow hammer. The magus shell appeared the seventh time, and it was located near the shores of Madeline Island. The scouts went to the area, and they called it the Long Island, which is also known as the Kakagon Sloughs. This is the space where the wild-rice grew from the start of ine island and ended on another island.

There are three keystone species mentioned within the origin story. The first is the muskrat, the second is the Otter, and the third is the Duck. The Otter provided great strength in reorienting the confused state by giving the people a sense of direction or the four directions of the medicine wheel. After this was done, people were no longer disoriented. In Ojibwe language, the Otter is called Nigig.

One story out of Lac du Flambeau stems from the relationship with Ziishiib, or duck. A man is heard crying on the shores, and Ziishiib approaches the man and asks him why he's sad. The man looks up and sees the duck standing there, and he explains that there is nothing to eat. A thought crossed the man's mind – to kill the duck, Ziishiib. The duck essentially informs the man that he could help him find food. The duck points out the lake and sees just a few plants. He tells them that there was something on the plant that could be cooked. If there is enough on the plant, he can get a kettle of water and cook the plant following the duck's instructions. Ziishiib, swims out to the Manoomin, consumes it, then swims back to the man. The duck reaches down into his stomach and pulls out the Manoomin plant, then places the Manoomin in the kettle; then little brown pieces of rice popped up.

In three of the interviews on the origin story, the main value is respecting the wild-rice. Respecting the plant entails utilizing it and having a robust appreciation for it to keep it going, or Creator could take the plant away. With respect to the question of whether plants can be considered sovereign entities, an individual has to decide if it can be considered sovereign, or the community at large decides whether they want to make the change for that aspect. If this occurs, if one person has the insight to discuss sovereignty for an individual plant, then that is when different changes can occur within a community.

Another aspect is the pow wow that is held every year, and the community that plans this event to pay respect to the wild-rice. Every year, the Ojibwe has a pow wow to give thanks for the harvest from the previous year, the present year, and the future year. There is a lot of hard work that goes into creating the pow wow and the feast that follows to sustain community value and respect for the wild-rice plant.

Figure 2 depicts rice in many different forms according to the interviews of both the Menominee and Ojibwe nations of Wisconsin. The following categories are depicted in this diagram to show rice as art, ceremony, commodity, community based, gifting, wellness, processed, relative, sacred, school youth/harvest, sovereignty, and superfood. Rice as ceremony is a sub-category for the topic of sacredness because many of our ceremonies are generally not open to the public. The majority of community tribal members utilize wild-rice in everyday life. In one interview, Biskakone had a hat on and at the end of the interview, he showed me a beaded plant on his hat – it was wild rice. During the interview, I mentioned that this was the first time I saw this plant beaded on an item. Rice as ceremony is a sub-category for the topic of sacredness because many of our ceremonies are generally not open to the public. The majority of community tribal members utilize wild-rice in everyday life.

Wild-Rice as Commodity and Community-Based

Wild-rice as Commodity considers the possibility for respectful relationships with external grocery stores and markets like Whole Foods and Willy Street Co-op. This interview discussed how the Co-op purchased the wild-rice from the reservations, while being knowledgeable about the tribal community and the harvesting process.

Wild-rice as a Community-Based was included because of the wild-rice festival that honors the process, the family, and the community. Each year dancers, singers, and community members celebrate the harvest season by providing various dishes at the booths of the pow wow.

Wild-rice as Gifting

Gifting is a process used to assist community members after the harvest. Some community members gather the wild-rice, and they share it with elders so they have it throughout the winter. One community member discussed how his 80-year-old sister is one of the first people they assist in giving the wild-rice to. The first time they gathered the wild-rice, they had approximately 100 pounds. When they came back to Madison, he only had two pounds because he had given away 80 pounds of wild-rice to community members who deserved it and others are unable to participate in the harvesting process.

Understanding food sovereignty requires discussing how foods are prepared and served to the people. Many community members have concerns about health and how wild-rice reacts within our bodies. Wild- rice is considered a superfood; it has high nutrient content base and is low in calories. It is important to reintroduce traditional foods back into our daily diets because they are healthier alternatives to the processed foods that many tribal members consume. These processed foods, with an estimated 60% arriving to these local communities from North and South America, contribute to the higher rate of diabetes and other illnesses in these communities. Along with food sovereignty, exercising and eating healthy are crucial to not only maintain the indigenous foods but to lower the rate of diabetes within our communities. The primary concern is to ensure that future generations recall the traditional foods that promote wellness and might help alleviate the influx of illness.

Wild-Rice as Process

This included an interview of recalling ricing at a young age. One tribal member discussed the camps and the process that is used to make sure that the wild-rice is harvested safely. Additionally, it is also important to ensure members are going through the traditional process of gathering, dancing, and winnowing the wild-rice. This process includes going to the camp, gathering the gear, using push poles and rice sticks, and placing the rice on canvas to dry out. In one interview, there were elders that were at the boat launch, and they recalled they would have to work with the ricing elders, for this gathering season.

The process included knocking the wild-rice into the boat to sun-dry it. Once the wild-rice is sun dried, a young community member would have a brand-new pair of moccasins to dance on the wild-rice. They would have clean, knee-high moccasins, that were made of tanned deer skin with cuffs up to the knees and canvas/leather. These moccasins were specially made for dancing the wild-rice. They would then gather the tarps and lay the wild-rice out to dry, then build a fire underneath the wash tub. The wash tub would be tilted, and the wild-rice would be placed in a wood barrel for dancing. They would make sure to use a paddle to turn the wild-rice so that it wouldn't scorch or burn. The elder discussed how dancing on the wild-rice required an 18 to 20 year old in great physical condition. It is important that the dancing releases the hulls from the wild- rice. The individual dancing on the wild-rice should be of the correct weight to release that hull on the green of the wild- rice. In one year, he said that they processed over 300 pounds of wild-rice. The process takes between 30 to 60 days, including up to the time of cold weather. The scorched rice was placed in gunny sacks, and they would place it back in the wash tub and dance on it again.

Many years ago, the wild-rice would be bound, bent, and tied into bundles. The wild-rice would be wrapped and taped up while it ripened. The responsibility of teaching our youth is important with respect to process, production, and methods. The harvesting process starts three weeks before it's ready. Part of the process is for a committee of elders to go down to the wild- rice sites, and check if the rice is ready for harvest. This committee was a way of life many years ago. However, now there are laws that prevent them from going out there until the ripening actually happens and the plant opens up for us to be able to harvest the wild- rice.

The method is to have a push poler that stands at the back of the canoe and the rice knocker faces the push poler as the canoe pushes through the wild- rice. The knocking sticks are to gently bend the wild-rice plant to pull the plant into and over the boat, knocks it twice with a scraping motion to knock the wild-rice seeds into the canoe. In addition, if the wild-rice fills the canoe, then it's a good harvest for the year and the season. Two to three hundred pounds of wild- rice is a great day for the community to go through the processing and harvesting all wild-rice.

Another method is to ensure that there is the riser who is monitoring the landscape as they're going through the waterway. The poler takes their time to glide through the water to ensure balanced effort to collect the wild- rice. Primarily the effort is to have the wild-rice up towards the front end to balance the canoe as it glides on the water; this helps maintain efficiency when gathering the rice. It is important that the pole and the knocking sticks are in good condition with no cracks in their structures. The wild-ricing tradition is a family effort for collecting a valuable resource. This is a traditional method to ensure balance within this vital but important system.

Wild-rice as a Relative

Wild-rice as a Relative describes the significance of the plant as a family member. The wild-rice is made by the Creator and is a way of identifying the Ojibwe as a tribal nation. In one particular interview, the root system of the plant is discussed at great length, particularly how it penetrates into the ground. The significance is becoming a part of that plant within the ground and creating a connectedness to Mother Earth. Wild- rice is considered a relationship that is tangible. In one season, in 2007, the community decided not to harvest the wild- rice due to little or no wild-rice that season, and the community grieved because of this.

The important element to remember is the longevity of the wild- rice plant for generations and how this plant has nurtured the Ojibwe and Menominee communities. There are harvest and abundant surveys that are conducted. On some level it's the relationship that we have with the wild- rice, since it's such a giving plant. The importance is to give back to that plant by conducting the surveys. The gift is given to us by creator. The wild- rice will continue to thrive as we remember how to care for her and to nurture the plant.

Wild-rice as Sacred

Wild-rice as sacred is looking at the origin stories of the duck and the goose and relating it back to the Anishinaabe people. Before the harvest season begins, there is a tobacco ceremony that is conducted to give thanks for the wild- rice season. Two of the interviews talked about the beautiful Lake Superior. In one interview the chief talked about the influx of freshwater from Lake Superior into the Kakagon Slough. In another interview, the elder discussed the movement of the water and indicated that the Bad River Ojibwe tribal nation has the freshest and tastiest wild- rice in northern Wisconsin. The constant flow of fresh water from Lake Superior into the Kakagon Sloughs may be an indication of why the wild- rice is at its best and sacred form in that area. The water comes into the slough and washes over the wild-rice many times a day. In some parts of the state with lower-quality water sources, the wild- rice has a muddy flavor.

Wild-Rice as School/Youth Harvest

The wild-rice is important for our next generation and starts with our youth. The next important factor is the school/youth harvest. Many efforts are underway to allow the youth to experience a wild-rice excursion. The Ojibwe have allowed boat tours and a tourism effort to allow outside agencies to assess the Kakagon Sloughs and to preserve a traditional way of life. Many of the youth have experienced wild- ricing excursions on a yearly basis. Our youth learn how to harvest and make their own ricing sticks and push poles. The goal of these initiatives is to recruit the youth to develop and value a relationship with the wild-rice plant and assist with its survival for years to come.

Wild-Rice as Sovereign

Sovereignty is the ability to self-govern with respect to wild- rice management. The main question asked was if seed-bearing plants are individual, sovereign beings. If it wasn't for the seeds, we wouldn't have any new plants. Wild-rice, a traditional, natural, and native food source, can be substantiated as a sovereign plant as it has spirit. It is an animate being. The plant is a live and seed-bearing, offering the wild-rice grain to the Anishinaabe, Menominee and tribal/nontribal people. The wild-rice plant has rights, just as we have human rights.

A key issue is the decline of the wild-rice, and we should pay attention to some of the indicators of what is occurring within the wild- rice beds. The Great Lakes Fish and Wildlife Commission (GLIFWC), which oversees the territories for hunting, fishing, and gathering, is assisting with the Minnesota Department of Natural Resources to address the serious decline of wild-rice within the major waterways and maintain wild-rice beds. Of central importance is helping local tribal communities maintain sovereignty in relation to a healthy ecosystem with healthy water and health wild-rice.

The wild-rice plant was present prior to any treaties, before any courts, fences, or lines were drawn out to divide the landscape. "Well, when those lakes and rivers freeze up and that have the rice, we have snowmobiles and we have botas in the summer, you know. The exhaust and the runoff from the farms, the so-called green lawns on people's properties that effects that Manoomin. Some of the most amazing rice beds I've seen, were on lakes with no houses. There's one lake that we went to this fall, that didn't have any houses on it and the rice was over 12 feet tall. And I attribute that, that clean environment around the lake, there's no houses within maybe like 8 or 9 miles of that lake, that little pond. And like I said, I was standing, I'm tall, I'm 6 foot 3 inches. I was standing in my canoe, knocking the rice and I've never seen that before" (WS310178).

Although GLIFWC is helping monitor and restore the wild-rice beds, now, it is important that farmers are now coming back to the land and participating in this process and growing their own food. For a while, many farmers moved to the cities in order to obtain a job but later went back to the farms in order to sustain their lifestyle and the community at large. In order to sustain wild- rice for the future, committees need to be formed with adequate tribal representation, particularly if they have a scientific background, to assist other scientists in understanding the main components of managing the wild- rice. For example, one of the community members was on the Commission and had extensive knowledge with the Manoomin as a Manoomin biologist.

In closing, wild-rice creates a symbiotic relationship with the water, animals, and community. The voice of the elders, in combination with cultural data and their extensive Traditional Ecological Knowledge, they require the need for more research to address the decline with bird, worm and plant population. Community wild- rice should be monitored regularly through scientific means of assessing the alkalinity, water depth, and overall surroundings of the sovereign plant. With respect to climate change, the importance here is to maintain adequate data sets outlining any changes with respect to the water, animals, and people. Wild-rice is a valuable asset within many tribal communities within Wisconsin. The balance is to address the conditions that are causing the decline and to manage ways to protect and maintain this cultural, valuable way of life. Scientists should address specifically the changes in the landscape and the relationship of the wild-rice plant with the animals.

Memorable Interviews with Elders

The Bad River reservation is a six-hour drive from the City of Madison, Wisconsin. In the summer of 2015, my daughter and I scheduled 3 interviews with Ojibwe elders and woke up at 6 a.m., to interview elders about wild-rice. This chapter is dedicated to two elders: Joe Rose, Sr., an elder from the Bad River Tribe of Lake Superior Chippewa (Ojibwe) and Mike Hoffman an elder of the Menominee Nation. Once we arrived in Odanah, Wisconsin, we had four hours to complete the interviews. The first two interviews went smoothly which only lasted for half an hour each. The third elder, Joe Rose, Sr., talked for hours. It was one of those meetings, where the debate topic and questions raised were to remember how important wild-rice is to a community. Joe Rose Sr., talked about the mining issue, the political issues of wildlife management and the next generation.

As I sat with my daughter, Joe shared his experience of traveling to Madison, Wisconsin on-a-monthly-basis to sit in hearings at the State Capitol. Joe shared his concern about the next generation and who will take over once he departs from this place and space. As we left for another meeting following the interview, I couldn't help but wonder about the next generation of leaders - who will sit through debates and fight for the sovereignty of the tribal nations. I wanted him to keep sitting and listening to his never-ending stories of his adventures within this world. I wanted to keep hearing about the issues and topics of discussion. I wanted to hear his stories. All I have, as a researcher as proof of our discussion, is a ten-page, single-spaced interview. Joe Rose, Sr., discussed his concerns about the Bad River Nation and his attempts to share his concerns from a TEK (Traditional Ecological Knowledge) perspective with scientists to collaborate on reaching solutions about the wild-rice crisis. Mike Hoffman discussed his same concern about reaching mutual respect for the land and for the human/plant population. The purpose is to build a bridge connecting the human and plant world.

CHAPTER SIX: MAMOOMINIKE GIIZIIS: WILD-RICE MOON

This chapter is focused on creating an eight-page short story and pop-up book that is a combination of the data set from Chapter 3 and consolidating the information from the interviews into a visual story. Joe Rose, Sr., an Ojibwe elder shared the creation story about how food grows on the water near Madeline Island in northern Wisconsin. Joe is an enrolled Ojibwe tribal member and he talked at great length about the story of the eleven stops before the Ojibwe came to Wisconsin. The purpose of creating an 8-page book, of which 4 pages are dedicated to pop-up displaying the four seasons, is to respect the various stages of gathering and harvesting the wild-rice during these critical times. It is also an integration the major concepts of wild-rice outlined in the dissertation in relation to the stories the elders addressed within their respective interviews.

This book is titled Manoominike-Giizis, which in the Ojibwe language, translates to Wild-Rice Moon. It refers to the wild-rice moon that occurs in September. The pop-up book is geared towards children and the next seven generations to address the importance of maintaining the cultural activities associated with gathering wild-rice. The Ojibwe and Menominee words are included to describe the four seasons within the book. The first page is dedicated to the creation story that was outlined by Joe Rose Sr., with reference to the muskrat and the eleven stops from the mouth of the St. Lawrence River to Wisconsin to arrive at the place where food grows on the water near Madeline Island. The first page contains a map pinpointing the stops along their journey.

“Even though they were living in good times, there was a lot of discussion about that. And this prophet spoke of a turtle shaped island that they were took for and also a sacred shell called a megis that would act as a guide on this migration journey. And so, the first place that it appeared was off of the shores of a turtle shaped island, on the St. Lawrence River coming off of the Atlantic Ocean there. And so, the people began their journey there. There were different signs that were given to them from the spirit world. They were told to continue westward. There are some stories that say that when the migrants appeared, on those shores, people lived in good times and then when it sank, when it disappeared, they started experiencing hard times and it was time to move on.

And so, the second stopping off place on the journey was at the place of the Great Thundering Falls, we call it Niagara Falls today. So, they lived there for quite awhile. And that was the second place where the Megis appeared to them. The sacred shell. And then it sank, it disappeared and so they prepared to move even further westward.

So, the third stopping off place would be a place we call Detroit today. And so, they lived there again until hard times fell upon them. So, then they moved to the place that we call Manitoulin Island. That would be on the other side of US-Canadian border today. That would be Canadian. And so, then from Manitoulin Island, they moved to Ontario Sault Ste. Marie and that was the place of the rapids. There were a lot of fish there. White fish and mainlay and other species. They lived in good times there until hard times came again.

So, they continued their journey westward. There was one group that followed the southern shores of Lake Superior. Another group that followed the northern shores of Lake Superior. They came together in what we know today as Duluth, Minnesota. And so the migration journey to place upon the water in a very large canoes so they traveled up the St. Louis River over there. They stopped off at one of the island in the St. Louis River. They sent their scouts out to look around. And in the prophecies, they were told to look, they would be very close to home when they came to a place where food grows on the water. So, these scouts came back and they found Manoomin, the wild-rice growing in these inland lakes.

On the St. Louis River. And so, they were told by the prophet that their journey would come full circle. It would begin at an island and it was end at another island, but according to the prophecy, they would be home when the Megis appeared for the seventh time. So, they went up to the high ground. They usually went to the high ground to fast and to seek a visions and knowledge from the spirit world. So, they went up to that place over there called Spirit Mountain. There's a skill hill over there now. They fasted and they were told to double back to a place called *Mooningwanekaaning* (Place of the golden breasted woodpecker) (Magnaghi, p. 35). So they double backed to *Mooningwanekaaning.* The island of the Yellow Hammer. And the Megis appeared there for the seventh time up at the shores of Madeline Island. So again, they sent their scouts across the waters.

Across the Long Island into the Kakagoan Sloughs and they found the manoomin, the wild-rice growing more profusely. They weren't seeing it anywhere, so they declared manoomin to be sacred since it was one of the important signs according to prophecy they were to look for. So, they settled at Madeline Island and in time Madeline Island became the center of the world where the Lake Superior Ojibwe historically, culturally, politically and even spiritually. Madeline Island Ashwamegan bay, Kakagon sloughs is a very special place to people on both sides of the US-Canadian border since probably half of our people live on the other side of Canada, on the other side of the border" (WS310176_JR).

The second page describes the significance of wild-rice to the Menominee and Ojibwe tribes. This includes a description of each phase of gathering and processing wild-rice for community events. The second page contains pictures or drawings of different items used to process the wild-rice including: copper kettles, moccasins, wild-rice seed, knocking sticks, and canoes. The reader will learn about the botanical difference between the two plant species of *Zizania aquatica* and *Zizania palustris*. Recognition will be given to a third wild-rice species which is located in Texas, *Zizania texana*. A plant drawing of both plants along with individual photos are shown to indicate the subtle ethnobotanical differences in each plant.

The third page begins with a winter season scene. The drawing shows a small lake with scenery of wilderness with no development, featuring small dens for the animals and winter snow and ice. The den setting includes otters, muskrats, red-winged blackbirds, bears, and cranes. A small description shares the importance of balance and rest to maintaining wellness, encouraging play when needed during the winter months. The wild-rice sits in the lake resting as well for the next season.

The fourth page centers spring where animals emerge from their dens while building their reserves for the summer and fall. This page is a pop-up page to represent different animal scenes and the wild-rice seed ready to emerge from the lake bottom. Off in the distance are tribal members preparing their canoes and knocking sticks for the fall season.

The fifth page is the season of summer and in the water the wild rice is in the floating leaf stage, scattered and floating on top of the water. The muskrats and otters swim and munching on the stocks along with the bears swimming in the waters. Community members are in their canoes and assessing the slow growth of wild-rice in the Kakagon Sloughs and Wolf River areas. The pop-up page consists of tribal members in a canoe with knocking sticks and a push pole gliding and checking the wild-rice.

The sixth page is the season of fall and features tribal members on the lake gathering and knocking the wild rice into the canoes. Off in the distance there’s a copper kettle on a fire with a parchment paddle, and a young dancer wearing new moccasins standing in a wash tub dancing on the wild rice. On the page, there’s a small explanation of what is occurring in each stage of the wild rice process. An elder is present and assisting with teaching the wild-rice process. The purpose of the pop-up book is to include the data set and features the eight elements to include cultural, viable, spiritual, balance, wellness, health, and vitality.

The seventh page is dedicated to the community members of the wild rice tribal nations who dedicate their lives to preserving a cultural way of life. The intention for the Manoominike-Giizis moon book is to work with a tribal artist who is interested in the project of drawing and creating the pop-up scenarios of the rough drawings presented to the graduate committee.

A proposal will be developed and presented to the Lac du Flambeau and Bad River Nations to apply for funding to assist in publishing a pop-up book with potential source funding from GLIFWC along with other tribes and organizations. Assistance from local artists will be included in the grant to assist in the pop-up pages along with scene setting development of each season within Wisconsin.

CHAPTER SEVEN: WILD-RICE ECOLOGICAL DEGRADATION: LAKE WINGRA AND HO NEE UM POND PILOT STUDY

Ho Nee Um Pond

The location for my ecocultural restoration pilot study research included a small pond located near Lake Wingra in Madison, Wisconsin on land owned by the University of Wisconsin-Madison (UW) and located within the UW-Arboretum (pond GPS coordinates: 43.052979, -89.431635). The University of Wisconsin Arboretum acquired 246 acres of land south of Lake Wingra, which is located between two major lakes of Mendota and Monona, in 1932 with official opening on 1934. The land base grew to 1,200 acres. The Ho-Nee-Um Pond was created as a retention pond on the northern shore of Lake Wingra, with construction beginning in 1936 and completion and dedication in 1940. The pond was made by dredging out sediment, which was pushed to create a small island land base south of the Ho Nee Um Pond between it and Lake Wingra (UW-Arboretum, 2024).

According to Cecil Garvin, Ho-Chunk language teacher, the Ho-Nee-Um word means something alive or a place that is alive or a place to be alive. The correct spelling in the Ho-Chunk language is “Ho nii ap” or pronounced “Ho nee ump” (Cecil Garvin, personal communication by telephone interview, June 1, 2012).

Historical descriptions of Lake Wingra indicated that Leslie Rowley had to paddle 100 feet before he could reach open water. “The shores of the lake were shallow and one had to push a boat through a hundred yards or more of weeds and cat-tails before reaching open water” (Rowley, 1870, p.1). The wild-rice plants were found in the southwest corner of Lake Wingra near the present-day Big Springs. “There was a good bit of wild rice along the south and west borders and some wild celery” (Rowley, 1870, p.1).

> "About the time I was ten years old I began to venture out on the lake in a flat-bottomed skiff that drew very little water. I found that the shores of the lake on all sides were marshy and of large extent and that it was a veritable Paradise for all kinds of feathered game. There was a good bit of wild rice along the south and west borders and some wild celery. Number of teal and mallards seemed to nest there. Snipe were plentiful in the marshes and red-heads and canvas back used the lake for a feeding place. These big ducks used to rise from the lake and fly over 'Dead Lake Hill" to "Third Lake' (Monona). Blue bills were plentiful too" (Rowley, 1870, p. 1).

By 1940, wild-rice had disappeared from the Madison area, except in Pheasant Branch Preserve and maybe Cherokee Marsh, including Lake Wingra, most likely due to a combination of factors, including increased urbanization and run-off from agricultural production. The construction and development around Lake Wingra encouraged sprawl for homes and recreational use of the waterway. The City of Madison was expanding and additional stormwater retaining areas were needed. The island that exists in between the Ho Nee Um Pond and Lake Wingra was created by the soil dredged for the stormwater pond. The island blocked the natural spring water from entering Lake Wingra, containing the water in Ho Nee Um Pond. For sixty-eight years, Ho Nee Um Pond served as a buffer zone for nutrient settlement prior to entering Lake Wingra. In 2008, the City of Madison discovered a natural spring near the pond, and the stormwater was diverted to another area so that Lake Wingra could be restored to its natural state, including a reintroduction of wild-rice.

A critical inquiry for my research was if a "wild" species of wild-rice grain would flourish within a man-made system. For two years, I planted the wild-rice grain within the Ho Nee Um Pond and discovered issues that deter the grain growth and survival. For example, the pond has many invasive species as well as a pink filamentous colored algae that resembles cotton candy) and cyanobacteria algae that bloom shortly before the wild-rice grain grows from seed (County Board of Supervisors Aquatic Management Committee Final, October 20, 2006: Appendix A: p.11).

"In the past century or so, economic and cultural pressures have caused many Indians to embrace modern Western culture, exploitative land uses of regional floras, and restrictions on the use of public lands have limited their traditional practices" (Anderson, p. 309).

Ho Nee Um Pond was an attractive research site for two reasons. The first reason is because it could help restore the natural state of the springs near Lake Wingra. In 1951, there were 20 springs that flowed into Lake Wingra. These springs no longer exist (Noland, 1951). The work done with Ho Nee Um resembles a concept called Focal Restoration (Higgs, 2003). Focal restoration is a way of pinpointing a specific site and working with both environment and place. The difference here is that I also considered the cultural sensitivity of the site in relation to the springs; therefore, this is an Eco-Cultural project. The second reason is the pond's location in the UW-Madison Arboretum and the Arboretum's initiative to restore the ecosystem with native plants and species near the pond and on the prairie land.

The wild-rice was noted at the Big Springs, located in the southwest corner of Lake Wingra in Madison, Wisconsin.

> "About the time I was ten years old I began to venture out on the lake in a flat-bottomed skiff that drew very little water. I found that the shores of the lake on all sides were marshy and of large extent and that it was a veritable Paradise for all kinds of feathered game. There was a good bit of wild rice along the south and west borders and some wild celery. Number of teal and mallards seemed to nest there. Snipe were plentiful in the marshes and red-heads and canvas back used the lake for a feeding place. These big ducks used to rise from the lake and fly over "Dead Lake Hill" to "Third Lake" (Monona). Blue bills were plentiful too" (Rowley, p. 1).

Restoration

Three test areas were selected: one close to the springs, one at the old entrance of the previous sewer lines, and one slightly west of the sewer lines. The main purpose was to list previous locations of the wild-rice and review the possibility of future restoration efforts.

2013 Ho Nee Um Pond Data/Quantitative Data

The planting of the wild-rice seed at the Ho Nee Um Pond included May 7, 2013 and May 6, 2014.

Table 7.1 GPS recorded on May 7, 2013 utilizing a canoe from the UW-Madison Arboretum. Attendees include Brian Walsh, Debra Hartzheim and Diana Peterson.

Table 7.1 GPS Coordinate Data - Mouth of springs ~20-30 feet out

Wild-Rice Planting at Ho Nee Um Pond May 7, 2013		
Sample Number GPS Coordinate Water Depth at Ho Nee Um Pond		Water Depth
1. N43.03.227	L W089.25.891	~14”
2. N43.03.229	L W089.25.891	~14”
3. N43.03.231	L W089.25.891	~14”
4. N43.03.230	L W089.25.892	~18”
5. N43.03.229	L W089.25.892	~18”
6. N43.03.230	L W089.25.887	~2.5 feet
7. N43.03.244	L W089.25.851	~14”
8. N43.03.245	L W089.25.849	~16”
9. N43.03.249	L W089.25.844	~2 feet”
10. N43.03.251	L W089.25.843	~2 feet
11. N43.03.262	L W089.25.840	~1 foot
12. N43.03.262	L W089.25.841	~15”
13. N43.03.261	L W089.25.840	~2 feet
14. N43.03.260	L W089.25.837	~2 feet

15. N43.03.259	L W089.25.836	~2 feet
16. N43.03.257	L W089.25.846	~15”
17. N43.03.257	L W089.25.846	~15”
18. N43.03.255	L W089.25.849	~14”
19. N43.03.252	L W089.25.851	~14”
20. N43.03.266	L W089.25.823	~3 feet
21. /22. N43.03.254	L W089.25.843	~2 feet
22. N43.03.254	L W089.25.843	~2 feet
23. N43.03.265	L W089.25.830	~2 feet
24. N43.03.265	L W089.25.830	~2 feet
25. N43.03.268	L W089.25.824	~2 feet
Bulk Sample N43.03.264	L W089.25.827	~2 feet

2014 Ho Nee Um Pond Data/Quantitative Data

Table 7.2 Recorded on May 6, 2014, utilizing a canoe from the UW-Madison Arboretum. Attendees include Brian Walsh, Debra Hartzheim and Diana Peterson.

Table 7.2 GPS Coordinate Data - Mouth of springs ~20-30 feet out

Wild-Rice Planting at Ho Nee Um Pond May 6, 2014		
Number GPS Coordinate Water Depth at Ho Nee Um Pond		Water Depth
1. N43.03.15.5	L W089.25.892	2 feet
2. N43.03.14.9	L W089.25.892	3 feet
3. N43.03.14.8	L W089.25.892	3 feet
4. N43.03.14.9	L W089.25.892	3 feet
5. N43.03.15.0	L W089.25.892	2 feet
6. N43.03.15.0	L W089.25.892	2 feet
7. N43.03.15.0	L W089.25.894	2 feet
8. N43.03.14.9	L W089.25.894	3 feet

9. N43.03.14.8	L W089.25.894	3 feet
10. N43.03.14.8	L W089.25.894	3 feet
11. N43.03.14.8	L W089.25.894	3 feet
12. N43.03.14.9	L W089.25.891	3 feet
13. N43.03.14.8	L W089.25.891	3 feet
14. N43.03.14.9	L W089.25.891	3 feet
15. N43.03.15.0	L W089.25.891	2 feet
16. N43.03.15.0	L W089.25.891	2 feet
17. N43.03.14.8	L W089.25.891	3 feet
18. N43.03.14.6	L W089.25.891	3 feet
19. N43.03.14.8	L W089.25.892	3 feet
20. N43.03.14.7	LW 089.25.892	3 feet
21. Two samples floated in water		3.5 feet
22. Two samples floated in water		3.5 feet
23. N43.03.14.7	L W089.25.892	3 feet
24. N43.03.14.6	L W089.25.892	3 feet
25. N43.03.14.6	L W089.25.892	3 feet
26. N43.03.14.7	L W089.25.892	3 feet
27. N43.03.14.7	L W089.25.892	3 feet
28. N43.03.14.8	L W089.25.894	3 feet
29. N43.03.15.1	L W089.25.894	2 feet
30. N43.03.15.0	L W089.25.894	2 feet
31. N43.03.15.0	L W089.25.894	2 feet
32. N43.03.14.9	L W089.25.891	3 feet
33. N43.03.14.8	L W089.25.891	3 feet
34. N43.03.15.2	L W089.25.891	2 feet
35. N43.03.15.1	L W089.25.891	2 feet

Planting method (justification)

A wild-rice loss and mitigation pilot project, at part of Lake Wingra now called the Ho Nee Um Pond was originally planned as a mixed methodology eco-cultural project. Part of the research project was to gather qualitative cultural data from the Menominee and Ojibwe elders through interviews to understand the cultural significance of the natural springs and wild-rice. The second part of the project was planned to employ quantitative ecological methods in a pilot project intended a) to assess the existing conditions for *Z. aquatica* under the present conditions of water, water depth, and soil conditions and b) to assess the impact of natural spring water and nutrient sediment data on the growth of wild-rice. The effect of nutrient sediment and water clarity was to be measured by sowing stratified seed in the pond. However, the muskrat and beaver are notorious for munching on the tender stalks while the wild-rice is in the floating leaf stage.

Wild-rice seed was placed in cheesecloth with 10 seeds placed in a small pouch with a burlap string tied around the bag. There were 25 small bundles overall, with a total of 250 seeds to test. A stone was place inside each bundle to allow for the seed to germinate within the marl soil bottom of the Ho Nee Um Pond. In addition, the seed was strategically placed in three locations: one close to the springs, one near the previous storm water pipe entrance, and one slightly east of the previous water lines. The remaining wild-rice seed was hand-sown in one central location close to the shoreline. The goal is to test the importance of spring water in conjunction with nutrient sediments from Lake Wingra. The results of this experiment were intended to assist local and city planners to choose appropriate locations for future restoration.

Analyses (1% germinated)

Key concerns of the project were the amount of lily pads, the phosphorus content within the waterway, and its location of the pond region within the city. Excessive leaf litter can deter growth from the seeds (Galatowitsch, 2012). The seedlings were planted in May, and a collage of pictures will show the gradual growth of the lily pads through September 2013. The total seeds planted included 300 wrapped in cheesecloth, and nine plants survived the experiment. Only 1% germinated from the experiment. These factors may have led to limited germination.

On August 12, 2013, there were 9 wild-rice plants that grew while only 1 flowered. Prior to planting, I made tobacco ties and tied them to a tree closest to where I planted the rice with Brian Walsh and Deborah Hartzheim. When I returned to the site for the second year of planting on August 12th, 2014, there were no wild-rice plants. I tied tobacco ties to the same tree. I arrived two weeks later, and the tobacco ties were gone. The flora of Ho-Nee Um Pond includes invasive species as well as algae; both cyanobacteria and filamentous algae bloom shortly before the wild-rice grain germinates from the seed.

In closing, this Eco-Cultural project serves as a model with existing conditions of phosphorus, marl soil bottom and excessive lily pad invasion. Due to these elements within Lake Wingra, the importance is to review the use of the lily pads, *Nymphaea odorata*, which is a protected species within the state of Wisconsin. A permit would be required in order to eradicate the lily pads and discussion would ensue as to which plant is a priority within the water body of Lake Wingra. The lily pads typically bloom from July through September which is a crucial time for the wild-rice on a lake. During these months, wild-rice is in the floating leaf stage and the lily pads will shade out the wild-rice stalks. The importance to considering re-establishing wild-rice is to consider which plant is more significant for the water and wild-life. This is a debate between the plants of wild-rice or lily pads. Another factor is to recall the cold spring water which assists in the growth of the wild-rice from the small spring near Arbor Drive.

A future possibility in re-establishing wild-rice is to design a work project with the Ho-Chunk. Paul Radin discusses at great length about wild-ricing with the Ho-Chunk Nation and the cultural role this plant portrayed with harvesting and maintaining cultural ways.

Initially, wild-rice was found in the southwest corner of Lake Wingra, which is where the Big Springs still resides. A study could be conducted to measure the depth between one to seven feet near the southwest corner to reseed and try to re-establish the wild-rice near the Big Spring. Wild-rice still remains culturally significant to many tribal families and individuals. The purpose of the pilot project is to assess solutions for maintaining wild-rice in Lake Wingra. The plant is sovereign within its own space and location. As the scholarly journey of my research of wild-rice began, the focus became to address wild-rice as a sovereign being and to identify wild-rice stands within its own right.

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Appendix 1.

These quotes from the interviewees are grouped under each of the codes that were used as the bases of the synthesis of cultural values and concerns in Chapter 5.

Ancestral Tie

WS310168: "Those words, I learned a long time ago pekuac-manōmach means Wild Manoomin is the grain" (p. 1)

WS310168: "But as far as any origin story on wild-rice, I really don't know any origin story of it. I know what I read, different things. I personally w

as never told an origin story of wild-rice by anyone older than myself. I had to read it" (p.1).

WS310168: "Now my grandfather Cecil Arnot, lived in Rhinelander right on the beginning of the Wisconsin River. I have a piece from the paper, when he was interviewed. It said "why do you live here". And he said, "why not? He said, I have rice. I have my plants. I deer hunt. I have a good live here." Not only him but other relatives had rice there. In fact, our relatives are named Rice. Old Auggie had ricing sticks that he passed down to one of my cousins. Several pairs of ricing sticks. It used to be a big thing back" (p.2).

WS310168: "Well, as far as I'm concerned, if you start chipping away, taking away things like Plains people lost the buffalo, and was reduced down to a very small herd. They want the home, they want the robes, they want their traditional meat. Start living on commodities. Living in burnt out old cars and shacks. And drinking and everything. That's kind of what happened to the Algonquin people, which the Menominee people are a part of: take away their food, take away the rice and people start living on commodities. Noodles and cheese and white bread. All this stuff that the non-native people provided as a substitute. And away went a lot of the practices, the songs, the dances all started disappearing slowly but surely, turning into somebody that the Creator didn't make us" (p. 2-3).

WS310175: "And I can't remember ever not being around wild-rice. My grandparents, my parents have always riced and had always had rice to eat. I think I just had some yesterday" (p. 1).

WS310177: "I actually have a photo of my home in the 60's. This was my grandmother's home. This triggered memories of everybody getting up early in the morning" (p. 1).

WS310177: "That's the photo I have is people standing on the road, other people in the boats, the steam is coming off from the water because it's so early in the morning, that steam, like a fog and that mist is coming off the water" (p. 2).

WS310177: "We have stories of it of us battling against the Sioux. And that there would be one Sioux man left, and he would be treated like royalty. And he would be cleaned and bathed and fed. We would give him a brand-new canoe or two and fill them to the brim with gifts and send him on his way with a message. Tell your people not to come back. And that was it" (p. 3).

WS310177: “Is that Chief James Blackbird?

No, that one right there. Edawigijig which means (Edawi-giizhig “***Both Sides of the Sky***”). And then his father signed the treaties, for me. I can’t let him down” (p. 6).

WS310170: “And there is economic benefits of wild-rice traditionally to the tribes as well. So, there is so many levels of significance that it really is hard to overstate, I think, the importance. It’s not like a historical importance, it’s important today just as much as I think it was 200 years ago” (p. 1).

WS310170: “We talk about Manoomin was so important they tend to come up in all these historical documents for the tribes. So, when the treaties were initiated, it’s actually directly mentioned in the treaties. When the reservations were being established it’s mentioned in the reservations. And then actually, in the Voight case, that reaffirmed the off-reservation treaty rights, the rice is there again right front and center. Some of the strongest language in the Voight decision, when it comes to resource management, it comes in the wild-rice sections. So again, I think this reflects how important this resource has been to the tribes for a long time” (p. 1).

WS310169: “Thinking about my mom, who is unfortunately no longer with us, think about what she packed up for me in terms of my food for the day. The water and what she told me to do to keep it cool while we are out there. I still do those. Even though my mom is no longer here, I still kind of do that routine still” (p. 2).

WS310169: “In the end for me, it’s just that smell in the morning, when you’re out there. Thinking about those, thinking about what you’re doing. I always think back. I could be in the same spot that one of my ancestors was here 150 years ago, 300 years ago, 1,000 years ago or however long you want to go. And from my perspective, that really makes me feel very humbled and honored. And sometimes, it almost breaks you down and want to cry, because it’s that overwhelming to think about, because I’m doing something that they did and they carried it on and then that piece of them is still here with us today. Even though I never knew him or her. That’s one of the most powerful thing in the world I would say” (p. 7).

WS310180: “So I guess, if we’re looking at how Mother Earth herself is and taking the time to understand what we’ve done that impacts say, the wild rice itself, and if you asked the wild rice what to do, and you if you’re willing to talk to the traditional keepers of wild rice or any traditional keepers and get how that works. And understand that just because it worked one way in the past doesn’t necessarily mean that it will work the same way in the future” (p. 3).

WS310180: “So, I’ve had wild rice dreams before I knew there was wild rice. Like I dreamed for example, that there were, that the North shore of Lake Winnebago, was like all wild rice, I don’t know for who it was, but in my dream, it was, yea. In my dream, there was the first several house or something, but anyway, I had that dream. And the way that people got around in that dream was by canoe. I was pretty young when I had that dream, so I couldn’t even tell you when, but I was pretty young when I had that dream. I’ve been drawn to places I know now, that I did not know back then, that I’ve been drawn by dreams or vision, or to physically been drawn to places like the springs, just off Willy Street in Madison. Where there is wild rice, my whole life, I only put that together later in my life” (p. 4).

WS310182: “If it wasn’t for those Chiefs, like Oshkosh, they would have moved us away to Minnesota in 1848. But there was in their shrewdness of dealing federal treaty people, they said no, we are not going to move. But the land they were going to move us to was not suited for the Menominee people, because they went and saw it. They were going to give us land in exchange for the remaining lands in Wisconsin in that 1848 treaty. It said we’ll give you land in Minnesota for that. And our Chiefs were reluctant to sign this treaty, going as so far to move over this land in Minnesota to look at it. Which they did, they came back and said no, we are not going to leave. As far as going to Washington, to plead the case with the President, President Fillmore, and Oshkosh asked him, he said the poorest land in Wisconsin is better than that of the Crow Wing and my people stay in Wisconsin. And a few years after that in 1848, this reservation was established, in our ancestral territory. One of the few tribes that did not to have to migrate, or leave or anything like that, because our Creation story took place at the Menominee River thousands of years ago. We were lucky to be where we are today on this reservation, part of our ancestral territory and part of what our Chiefs said that we would always have.

Bartering

WS310168: “I know sugar. I do a lot more sugaring than anything. Every year, I go and I set taps and I collect the sap, I boil it down and I make maple syrup. Menominee words for Maple Syrup: sōpomāhtek-sēwākametaew. Sugar out of it. And, I would usually trade for rice because I don’t live right in a ricing area. I live in a hardwood area here more of a swamp area where there isn’t really a lot of rice” (p. 2).

WS310169: “And so different things like that, in the end I still think the essence is still there. Making sure that I’m keeping those traditions. I always think about what I’m taking because I have to give back a little bit too. And I have to think about who I’m supposed to give back to in our community. So, going back to that question, the one you asked about it’s giving back to our community as well, not just to keep it to ourselves” (p. 3).

Changing Landscape

WS310176: “And what is really nice when you out there harvesting wild-rice, you see all of this wild life. All of these ducks and geese, and these little rice birds. And all of the big flocks of red-wing blackbirds. And in my lifetime, so much has changed. You don’t see nearly the number of ducks, waterfowl that we would see years ago. And you don’t see as many different species of waterfowl as what you saw years ago. And I remember, you would be in the rice field harvesting rice and every-once in-a-while you would scare up a big flock of blackbirds. There might be 1,000 or 500 – 1,000 blackbirds in one of those flocks. And when they get up they would sound like a jet aircraft taking off, just the sound of their wings. And so now you go through the rice, you don’t see all of the waterfowl that you used to see. You don't see the little rice birds. You don't see the red wing blackbirds or the shy pokes or the other water birds. Their numbers have decreased dramatically! I remember, oh, been six or seven years ago, my son and I were making rice over on Bad River slough. We came home and we laid it out on tarps to sun-dry.

And we started scorching it and we were finding a lot of empty hulls. We got to thinking about that. You know, we don't see those great big flocks of red wing blackbirds anymore. And we used to say you have these little tiny worms in the rice. The little green worms, the little white worms and I think what is happening there is that was a food source for those birds that would feed on that rice. Now I've never seen this in any of the research or anything, but that's our feeling. And another species that has decreased dramatically is our muskrats" (p. 5).

WS310176: "Now years ago, one of our environmental specialists for Bad River DNR noticed that there was a serious decline in the yellow perch population. And then there's, I guess a little crustacean that grows on the gills of the yellow perch, it's not really a parasite, but then that falls off of the gills and that's what forms that ledge. And so, you have a deep channel there, then you got a ledge, the wild-rice grows inward from that ledge in shallower water. Now with the serious decline in that yellow perch population, that probably has something to do with the decline in the wild-rice. So, these are just things that we notice. I guess that call that TEK" (p. 5).

WS310176: "You have climatic change. The last three years have been pretty serious that way. And 2013 and 2014 they had a late ice off season and so that fishing season for tribal fisherman lasted only about a month. Now last year, they had an early ice off and that fishing season only lasted about a week. Now, since there was a serious decline in those fish over there, then the Wisconsin tribes that normally go over and fish that spear or net in Mille Lacs, they backed off and still in all, the hook and line fishery, the non-native fishery I guess exceeded their quotas there" (p. 6).

WS310176: "There's a serious problem over there. They are trying to figure out all the different factors. And I guess, the northern pike population is up. The bass population is up. Possibly those could be in competition with the walleye population there. And so, they are doing a lot of research now with the electro shocking boats and there are trying to figure out what the problem is now. So, they had to close that season down early over there. So, these resort owners and these tackle shops and everything are really concerned because they are losing money I guess. So, it's a heavy-duty political issue over there.

And in Lake Superior, there is a serious decline in the lake trout population here right now. And we are having meeting like that too. Not just with inland fisheries, but the big lake. And so, these are some of the things that we have to deal with" (p. 7).

WS310176: "Well I'd like to share my concern. Not only about wild-rice but about the environment, the air, the water declining of populations of plants and animals, the threat of environmental degradation to our people" (p. 13).

WS310168: “It’s a rough road to hold, to try and feed 8,000 people when the resources are very limited. Very limited” (p. 2).

WS310168: “To the point of where I rarely get to eat wild-rice without paying an exorbitant price. I see these non-native people coming in now making rice beds, artificial. And they are doing this and that and the other thing to the wild-rice where it doesn’t look like wild-rice anymore” (p. 3).

WS310168: “Hope this won’t sound too bad. It’s like peeing on a forest fire. It’s a couple, tiny little groups trying their hardest to do something to reverse what the masses are ruining. If you look at the environmental groups and their tiny little groups, the majority of the people say nut cases, tree huggers” (p. 3).

WS310168: “How attractive are they? They attract tourism. People should go and see how it’s supposed to be. It’s not only people, but the ducks and the geese and all the other creatures of the world love the wild-rice beds. The wild-rice in itself is a filter and helps with the pollutants that should be from nature to help to filter out. It should be attractive” (p. 4).

WS310178: “Some of the most amazing rice beds I’ve seen, were on lakes with no houses. There’s one lake that we went to this fall, that didn’t have any houses on it and that rice was over 12 feet tall. And I attribute that, that clean environment around that lake, there’s no houses within maybe like 8 or 9 miles of that lake, that little pond. And like I said, I was standing, I’m tall, I’m 6”3’. I was standing in my canoe, knocking the rice and I’ve never seen that before” (p. 3).

WS310178: “Well, as a matter of fact on our reservation right now, there was a historic ricing site, just west of the town here. On little lake known as Chowalah lake. Now Chowalah lake at one time was so plentiful with wild-rice that we would have flocks of geese come in. And so, what happened was, these geese would come in and not only did the geese eat the rice, but the Ojibwe ate the rice and the geese. There was a big trade off there you know. And they helped with that lake and something happened and that rice no longer grows in that lake. Or along that whole area of swamp and so now there’s, what they are trying to do is trying to restore that lake. There have been many attempts to reseed that lake.

And so, I think, what they are trying to do, from a scientific level, there’s trying to figure out what caused that lake to be in decline for the past 20 some years. But through the restorative efforts, on the very edge of that swamp area, they have these man-made dykes built up and they’re starting to reintroduce rice back in there. And the rice really took off this year, for whatever reason. But a lot of that stuff, a lot of the unknowns, the scientific world, they really don’t understand, you know, how rice can grow one year and not the other. They think that their management plan can decipher it, but it really doesn’t” (p. 4).

WS310175: “A lot of the inland lakes, the water is kind of stagnant. Some places is flowing by a river or something like that, but a lot of inland lakes, it doesn’t move much. The water. And here our water comes in and washes our rice several time a day. We put what they call a sage, we call it a tide. The water, in the morning you like to see the water coming in, later on, you'll see it going out, then later on you see it coming in. We used to get into some boggy areas where there is a lot of bog way down. Sometimes, you get in there, you can barely move your canoe through that. Are you interviewing with Joe Rose? He's here" (p. 2).

WS310175: "Anyway, that movement in the water washes the rice and so our rice is the tastiest of any rice anywhere. But every tribe claims that their rice is the best. But ours really is, it really is! And it's the difference with the clean water constantly changing. It's the water that comes in and goes out several times a day. It really helps, that water, keeps it from getting the muddy taste that a lot of rice has a muddy taste to it on a lot of lakes. So, what else?" (p. 2).

WS310175: "I think to some extent, it probably have, we used to have a lot more rice than we do now. In Ashland here, Ashland has always been a major industrial place since way back in the 1800's. There was a shipping place at one time. If you go through there, you can still see some of the shipping docks there, the ore docks. They were shipping iron ore from Minnesota to the smelters in the East, going right through here" (p. 4).

WS310175: "And orchards that we have over to the west of us, and we‘ve got our own little orchard down here in Odanah, oldtown, by the pow wow ground there. Actually, all the way around the pow wow grounds we've got fruit trees planted there. We used to have a garden there too, a public garden, but they put in the trees now. And nobody gardens that much anymore, we see the trees. And again, that area is the old gardens. All very fertile land down there, ok? If you get away from there, it's not as nice to grow things" (p. 5).

WS310175: "We are going back and thinning that out and replanting. So, it's not new area, but it's going to be growing rice again like it used to. I don't know that there are other ricing areas nearby that would actually support rice. We do have rice on Bad River too. But it's way down by the lake. It's not as plentiful as the Kakagon. Some areas of the Kakagon get so shallow that you can't really get through there without an airboat or something like that. Airboats are not allowed in the natural wild-rice stands. They did it with the airboat before, but that was before the rice was up, or after the rice was down actually. They actually had to cut it a couple of times.

So, I can't think of any new areas. It's just old areas that are being rejuvenated" (p. 5).

WS310177: "So, what we've seen was the narrow-leafed cattail encroaching on the wild-rice beds. We measured it and at approximate, we found that approximately, it grows approximately 11 feet in each year. So, in three years, that's 33 feet of rice beds from one plant. Ok? In all directions. So, it would be a 66 foot in diameter area in 3 years that would be consumed where rice would have grown. So, we see that in what they call invasive species. But when we look at the plant again and we find that it promotes heat. It generates heat. So, what if we created an Earth berm with that plant? And pulling it out from that area there, and leaving one behind, and created an Earthen berm to create heat for a home? Is it now an invasive species? Or is it a product of the United States? You know, it all depends on how you look at it and what its purpose is. I mean we can't forget what we've been taught by the teachings that we're given to in Anishinaabe: always to look at everything as to what its purpose is.

So, there we call an invasive species, and instead it might be heating a low-income home. And every five years, we can change that up because it's a renewable resource. It's not a fossil fuel. That's what I think about that!" (p. 4).

WS310177: "So, our conservation efforts, looking at the water temperature, the water depth. Looking at the other species that are around it and how aggressive they are. We can observe all of that; however, if we try and manage that, make use of those aggressive species in a different way and we may not be able to change the water depth or the water temperature, because everybody else around us is not doing the same thing. And everybody else around us saying well, they're not doing it either so why should I? And they're not doing it, so why should I?

It's sort of like if you go into a Head Start room, and the teacher says, ok kids you're going to do this and they look and they see a kid next to them who isn't doing it. Well I'm not gonna to do it because they're not doing it. And then, what is it that the teacher has to do to bring those kids around to be able to do something. And who's the teacher here, to people? In general, you know?" (p. 4).

WS310170: "Boy in a lot of different ways. There is a lot of loss of historic rice beds. Usually, we point the finger at alterations of the hydrology, behind most of those. In the change in the way water flows on the landscape, the shallow water is not particularly valiant. There is a lot of loss that way. Certainly, there is development of various kinds of things that is taking place. There is recreational boating activities that have been made that have impacts and degradation of water quality. Invasive species. There is a very long list and the one that really is most concerned about right now is the impact of climate change on Manoomin. This is a northern wild rice one that is clearly the species at is really important to human harvesters. This has adapted to northern cold conditions. Almost everything associated with climate change is going to be negative for wild rice. So, you have a longer growing season that favors the things it competes with, not wild rice. Heavy rainfall events, we've seen some of these kinds of things, those 3-or-4 inch rain events while rice is in that floating leaf stage, just wiping out beds. Or even leaning the dike fillers, those kinds of things, these heavy events seem to become more common" (p. 4).

WS310170: "There is some positives. I mean in especially, I think, under since the reaffirmation of the tribes off reservation of treaty rights. There has been a real resurgence in management and research related to wild-rice, much more going on now, I think, than there was 30 years ago. I think we have increased wild-rice abundance in northern Wisconsin over the last 30 years. But the question now is, are we going to able to hold onto those gains, or, I think, is climate change going to now sort of equal this benefit that we have not gotten" (p. 4).

WS310170: "Now, there's a decline in some ways going on in other places. And it's hard to measure actually, very accurately, how rice is trending. Because it is an annual plant, its crop varies so much from year to year naturally. These sort of need a really long database to sort of strip out year to year variability and find out what's happening sort of in the long run.

It's a constant battle and I could name a half a dozen lakes right now that have serious problems going on. And that's not always easy to figure out. Sometimes, it's easy to figure out what the cause is and sometimes it isn't. How well rice is going to fair in the future really depends on how high priority it is for people to preserve" (p. 4-5).

WS310170: "But I think, more and more of the restorations now, you really see as high or maybe higher benefits of the cultural restoration that is associated with that, and I think about particularly, Lac Vieux Desert restoration, which is one of the sites working on restoration. You that site, we restored rice and ecologically, that was a wonderful thing. The muskrats came back, the swans came back, all of that happened" (p. 5).

WS310169: "Lately, I think about some of the water. Water is the lifeblood of everything. I always think the water is one of the most powerful, not THE most powerful, I'm not trying to take away from everything else. I think it's really powerful. It can shape things. It can shape into this bottle. It can move a rock. It can change color, if needed. It can do a lot of different things. But in the essence, it shows the relationship between you and that Earth. It's not a coincidence that 70% of the land, or 70% of the Earth is covered by water and that 70% of your body is made up of water. It's not a coincidence it shows you that relationship between the two. So, from my perspective, thinking about some of these issues that have plagued our communities, it is definitely, a big effect on our communities" (p. 4-5).

WS310169: "When I've asked my uncle one time. I asked, Uncle when you used to go ricing, how was it when you used to go down river? He said, my boy, I can go down and get 500 pounds of rice in one day. I said, Uncle I can't even find 500 pounds in a week. He says, that's the big difference, between, he said, our communities now versus when I was growing up. It ain't that long ago. Sixty years may sound like a long time, but it really isn't. He said, my boy I never needed to bring water down river. I said, why is that Uncle. He said, because that's what that water is beneath you for, you drink that. I sat there and think about it. I was like, man I wouldn't think about drinking that. And he responded, he said, my boy, why don't you drink that, it's the same thing that helps that wild-rice grow. He says, you're saying that water not good for you, but it's good for the rice" (p. 5).

WS310169: "I think they've been helpful. I think the idea though, we need, I think it's great we take into consideration some of these modern initiatives, but I

also think it's important to think about some of those historical, or traditional we should be doing. One of things I've heard growing up, all my life, but I've never seen it done was, after wild-ricing for the year, a lot of our old ones would burn the wild-rice on the water, because it would help it (snaps finger) generate back faster for the next year. We don't do that anymore. I've never seen it done before. My uncles, my dad's oldest brothers, he says he remembers seeing that as a little boy. He said that it stopped a long time ago as well over concerns of how it would impact the other things. But, for that rice it was good. It's kind of like when you burn grass, why is it good? It helps that grass.

I think some of those modern techniques. I think they're great. I'm glad our tribes, especially my tribe work hand in hand with some of our different organizations and other communities, as well as other things or other entities, that want to work with our community to preserve rice. But at the same time, we need to reflect then, consider some of our traditional ways. It's just as important or not more. Then there's something missing if we don't do it that way" (p.5-6).

WS310180: "So, number one, I don't think anybody ever told me until I saw it out, the fact that this was a native plant. That it was harvested by people who were at least by the last couple 100 years or something, native to Wisconsin. So, I guess the most important thing would be number one, is awareness. This is a native plant. Number two, this is an endangered, almost an invisible, native plant. Number three, places where native people were put, and/or, forced to stay in some cases, places where that native plant also still lived and lives, thank goodness. And understanding of the plant herself" (p. 1).

WS310180: "I don't even think there is a big enough word for that. They killed! It's almost extinct! I don't know from the scientific point of view whether they managed, they somehow, whether that way of life has managed to genetically modify the rice. I have a small understanding that well, ok, I have an understanding that the plant people change over time. In response to their environment. I don't separate myself or any other human being out of quote unquote out of the environment, or nature, so our activities are going to affect how wild rice is. I don't know how that works with genetics, or has in the past, I don't know that. I am not, that's not the kind of things I know and not just from books. But I know that I watch for example just in my lifetime, the plant people change in response to not just human activity, but the change in the rains or the animals in their presence, the other animals in their presence, or yeah.

I would say that we have endangered another being meaning, the Wild Rice plant people. Almost to extinction with that way of life. That's what I would say" (p. 2).

WS310180: "Only the traditional keepers of the wild rice and the people who live near the rice beds would actually know that. I don't know the answer to that question. But I do know that in my lifetime, wild rice has is more available than it was when I was young. And there is more natives that are doing the geographical Wisconsin thing, there's more just in the Midwest like Minnesota and Michigan, the upper Midwest" (p. 2).

WS310180: "Attractive? That's a big question. Do I really know how to restore? Under restore, that means to go back. Hm, do we really know how to do that? It's maybe our only choice anymore. Because we destroyed so, and you know I don't know if there is like in the desert that a seed can be dormant for a very, very long time and somehow find its way into blooming in and being there. I mean that would be a natural restoration. I don't' know about, it's a big question. It's like restore where, restore what, restore wild rice? I don't know. Is there like wild rice seeds somewhere down here, where it used to be that someday can resurface and come back? I don't know, I have no idea. That's me being creative in my head. Taking the, I don't think we have any choice. It's attractive, because we haven't thought of anything else except ecological restoration, yet" (p. 3).

WS310182: “We’ve tried to plant it. We had some success but I think we got to use different areas or different sites to do it. The reservation has 60 lakes and 120 miles of trout streams and streams. Within those 60 lakes, I think there’s one of them or two, or several could be used to plant because what you need is a shallow-bottoms. And a lot of these lakes have that, so what I’m going to ask of the tribe, or the environmental people is if we could try to plant in those lakes. See what’s successful” (p. 2).

WS310182: “Well I think the Menominee reservation is special because it’s an area that is not been really touched or affected by the outside as far as the environment. The trees and plants, we still have a lot. I think the Menominee reservation looks the way it is now as it did years ago. Because all around us, everything is cut down. The trees and that all the plants are gone. But here on the reservation it’s different. We still have the nucleus of what was here thousands of years ago. And I think a good quote from I think from, I don’t know if he was Menominee or not, but they had said that the Menominee reservation timber standing yet at one of the reservation was established in 1854, we have more standing timber now so that its evidence of sustainability and wise stewardship of the Menominee’s that was instilled in us by our Ancestors, our chiefs and that we would always have this resource” (p. 2).

Community Based

WS310178: “Wild-rice as I’ve come to know it, it gave a lot of life to my family. And all of my ancestors and even the people that were here before us. They gave us, they gave us so much. And in the hardest time of the year, which will be probably in the middle of winter when its 30-40 below, that wild-rice is such a gift then, you know” (p.5).

WS310177: “I think that there is an origin story of it. I don’t know it to the full breath. So, until I do, I won’t share it that much. I just know that it was described to the people as food being on top of the water. When we got here, it was already inhabited here. So, for example when Radisson and Grossier, the first French contact that was made around 1692, 1700’s. When they came in they had documented something like 9 different languages that were being spoken, all here. What that tells me is that there was a huge community here. There were 9 different tribes that were here. More than likely, when we came here it was already inhabited by other tribes that were native to the area. When that relationship grew with each other where we could speak each other’s languages, you know, 9 different languages. When you think about that, how many languages do you know?” (p.1).

WS310177: “Yes. And actually, like not this past season, but the season before, we had so many those aggressive plants coming in in areas. We actually requested assistance from the Fond du Lac band in Minnesota to come over and what they had done in their rice fields was that they had retrofitted an air boat with these blades in the back. And so, the air boat went back and forth through their rice beds and cut everything down. So, even the rice was cut down but there was very little rice to begin with because there were so many aggressive plants in there. So, as a follow up to that, we had to take all that was cut down out of there, because we couldn’t leave it floating in the river. It may create these floating mat islands that would run right over the rice. So, what we did then, is we removed all of that and then purchased rice from the tribal members during ricing season and threw it back in in those areas.

The following year, it just, boom. Flourished. We'll continue to do that here at Bad River, until, you know, we'll probably keep managing it and send it on to the next generation to manage. That's what we have to look for, down seven generations ahead. What are we going to do to manage our rice, wild-rice here? And if nobody else, if the climate changes so much that our rice cannot exist anymore, there's going to be a huge problem. You know, there is going to be a total cultural shift, because that's not part of it. It'll be like a memory. Another memory. And it's gonna be traumatizing to people who could remember the taste of that rice, because it's so unique here, I don't want to think about it. (tears)" (p.5).

WS310170: "We eat a lot of it. In knowing that it's literally one of the best things you can put in your body. It's a wonderful thing. We took our children out ricing. They have all experienced that. And so, joy that comes through work sometimes. I've always said that that's part of my job is when we are successful in doing, at reseeding or restoration activity that is successful. That is, just not that many things you get to do that feel that you have that kind of significance. So, on a personal level, we do harvest surveys and we do abundance surveys. We do all kinds of management activities. I guess the importance personally, to some level about those things, is just this relationship that you have. Rice is this incredibly giving plant. So, to get the chance to give back to it a little bit, sometimes, it's a…it's a gift" (p.2).

WS310169: "When I go out ricing, I don't think about just me. I think about my family. I think about those ones not here. I think about those ones who are not here yet. I think about those that are not here. When I think about my grandfather, or some of my uncles who passed, or my aunties or my grandmothers, that's just important to think about how this is important to the relationship of our connection to the wild-rice. Because it is one on one. It's like culture. It's like language. They're the same. Can't separate the two. From my perspective, wild-rice is a part of us. Always has been, always will be. Currently, will always be in the future" (p.1).

Cultural Preservation

WS310176: "As we look ahead, Seven Generations ahead, which is a very strong part of our tradition, we feel that it's a matter of our survival" (p. 7).

WS310176: "Yea. In Natural areas, but we know that we're not going to get into this paddy rice situation because that's not successful. It doesn't produce the same kind of rice. It's not organic. And over there in the State of Minnesota and even in California, they have these paddy rice farms for the use fertilizers and insecticides and so on and it's processed differently. It doesn't even taste like wild-rice. And it's not an organic product. It's much different" (p. 13).

WS310168: "I hear things, but I am not really the person that is involved in that aspect of it. I hear things. I read things from News from Indian County about it" (p. 4).

WS310178: “They also have first time kill feast for some of our youth. Some of our young men and women when they get their first deer, they have some of that rice is made” (p. 1).

WS310178: “Oh yeah, there’s a lot of places all over in northern Wisconsin including the Chain of Lakes here within our reservation. There’s a monstrous wild-rice area at one time, that’s why our tribe settled here. You look at all the tribes, the Ojibwe tribes, the majority, a high number of the villages at the original time, were set by beds of wild-rice. And it was all the way back to the beginning where our roots are and so, just from that point of view, we understand our relationship to that Manoomin. That Manoomin needs our protection and so, I think, when we give back to those historical ways and we look at those historical times, we will be able to understand, you know, the world of wild-rice and maybe we can reset that and we can thrive like they did long ago” (p. 5).

WS310178: “Wild-rice as I’ve come to know it, it gave a lot of life to my family. And all of my ancestors and even the people that were here before us. They gave us, they gave us so much. And in the hardest time of the year, which will be probably in the middle of winter when its 30-40 below, that wild-rice is such a gift then, you know” (p. 5).

WS310178: “You actually become a part of it. You’re not only feeding your people, you are restocking the lake with seed and so your grandchildren, their grandchildren can continue to have it up the road. So, it’s important for people to know this, especially are own tribal people. I don’t really care if anybody else knows it, but as along as our kids get to see it and know it, that’s the most important thing” (p. 5).

WS310175: “But the people, all honor the rice and we actually have ceremonies that go on in the spring and in the fall. I’ve been on the wild-rice committee and the elders committee a number of years. They ask the elders who have grown up with the rice to monitor and to go out and check when it is ready for harvest. The natural resource department hosts a number of ricers who go out after that. So, it’s very, very important of our culture here” (p. 1).

WS310175: “Although, I don’t rice much anymore. All my kids do. So, they can supply the old man” (p. 1).

WS310175: “It’s very important. For us to manage it, we have a number of scientists in our natural resources department that are dedicated to water and rice. That’s a major part of what they do, which is nice, as well as their traditional peoples. The older folks, like myself that have been around forever, try to help the younger ones with getting started at it and then sometimes, we teach them how to finish it out traditionally. I’ve done that a number of times. Because they, now and then, get a group together and they say, how did you do it the old way? Ah, man you don’t want to know. No. Always glad to teach that but not many people really do that anymore. Very few. It’s just good thing to pass to the younger people so that if they ever want to do that, they can. But the machines are so much easier. I used to have my own machine even, but it wore out eventually. Then my son went and threw away all the nice parts for it” (p. 2).

WS310175: “And one thing that I did find out when I was up in Canada, at an Ojibwe Nation conference, many years, they invited us up there. They were talking about Ojibwe language teachings that our people are beyond the Rocky Mountains on the Canadian side. On the U.S. side they are in Montana, there are a couple bands in Montana right on the edge of the Rockies. On the Canadian side they are beyond literally a stone’s throw from the Pacific up in British Columbia. We are spread far and wide. I think that’s one of the most territories of any tribe in North America. We are pretty much centralized here. Right where the wild-rice is at and right where the best wild-rice in the country is at and there is a reason for that why ours is so good” (p. 2).

WS310175: “I told him to come here” (p. 2).

WS310177: “How many people are actually looking at their carbon footprint and what they’re doing to the environment. Each individual has to do that, not just Native people. And not just you know environmentally conscious people. Everybody has to and I never even thought about it before. And somebody asked me and I said, they said, well do you drive a car? And I said yes I drive a car. How many miles to the gallon do you get in your car? I said 49 miles to the gallon. He said well that’s pretty good!

I’m like when I think about it, that’s what I looked for when I bought the car, because I don’t want to. So, if I got to pay, you know, you got to spend so much on gas and everything like that then might as well get a bike or a horse. Forget about it. Horse in the winter, bike in the summer” (p. 5).

WS310177: “The following year, it just, boom. Flourished. We’ll continue to do that here at Bad River, until, you know, we’ll probably keep managing it and send it on to the next generation to manage. That’s what we have to look for, down seven generations ahead. What are we going to do to manage our rice, wild-rice here? And if nobody else, if the climate changes so much that our rice cannot exist anymore, there’s going to be a huge problem” (p. 5).

WS310170: “But it’s a little outside of my purview, but we have people at the commission who are also working on that. In the Planning and Development Department, I’m not sure how far off just from the Biology management stuff that we do. There are people at the commission that work on food issues and bringing native foods back into the diet, trying to introduce recipes. Trying to forget this resurgence of native eating, natural foods and there’s some programs based on foods” (p. 3).

WS310170: “As I said, I think of the short term. We have had a positive bump if we’re looking at northern Wisconsin. We do harvest data of both State and Tribal ricers. And we’ve had a very active cooperative rice restoration program. So, the Tribe’s is working with the State and the Forest Service, the Fish and Wildlife Service, Ducks Unlimited, both Lake Associations and a whole bunch of different partners. This suggests that maybe we have increased rice abundance in northern Wisconsin by 25% from where it was 30 years ago” (p. 4).

WS310170: “You know, I think there’s a growing appreciation for the cultural benefits of restoration. It certainly now, this is a traditional-harvesting-practices that are valuable. But, my background is more as a traditional wildlife biologist. And so, I walked into the door of all of this from a wild life perspective. For a lot of people, traditionally that was the interest in wild rice duck hunters and a lot of people that were doing the management for the long time.” (p. 5).

WS310170: “We are constantly looking for new sites. In some ways it’s getting harder to do. We have the easier stuff first. And then” (p. 5).

WS310170: “We have been doing this for 25 years. We have creamed off some of the easiest stuff. I think that in a lot of ways, rice restoration is getting harder to do. When we started off there were a lot of things, like artificial waterfall impoundments. So they tend to have the right habitat and the right characteristics and a lot of times all we had to do was monitor wild rice for 2 to 3 years with a successful result. What’s much harder to do is Lac Vieux Desert which supported rice but now it’s gone. Because you have to figure out what caused the rice to disappear in the first place. And a lot of these lakes have social conflicts going on. A waterfall impoundment is off on a state property somewhere. There is not a lot of conflicting interest. On lakes that have been developed and they have cottages and they have dams and issues like that on it, it gets much more complicated” (p. 5).

WS310170: “That’s seen as an important stakeholder to have there.

That, to me is a real concern. I would like to think that we could get past, it’s seems odd for me that there is politics in rice, but now-a-days there is and I hope we could get past that and get back to focusing on the resource and what’s best for it. Not worry too much about the political in-fighting on it. That is a concern for me in rice management. There are a lot of people in the State and in the other agencies as well that really do value this resource and want to do right by it. That’s encouraging. But we need to get past the politics again” (p. 7).

WS310170: “I’m sure that’s true. It really has been a blessing to us, I think, to work on this resource. It’s just an incredible plant. Because of the ecologists are trying to find value in every component of the landscape, but there is something about rice that stands out. It’s such an amazing thing, ecologically and culturally” (p. 7).

WS310169: “From my perspective, it’s been historically important, presently important and in the future, it’s going to be important” (p. 1).

WS310169: “Because it is one on one. It’s like culture. It’s like language. They’re the same. Can’t separate the two. From my perspective, wild-rice is a part of us. Always has been, always will be. Currently, will always be in the future” (p. 1).

WS310169: “From my perspective, it allows us the opportunity to reflect on who we are and who we will be continue to be” (p. 1).

WS310180: "There's more wild rice available that is naturally occurring and cared for by people living nearby than there was when I was young. And that is a good thing. But because I don't live near the rice beds, I can only say that I am aware there was once rice beds down here where I'm living. For example, near where I used to live in Fort Atkinson, you know, other areas down here. I knew that for quite a long time. But it wasn't precious to me yet. Now it's precious to me" (p. 3).

WS310180: "I don't know the answer to that question. Only the traditional keepers might have the answer to that. And if they were to do that in a way that was collaborative, then we might have a chance at a future for the whole place" (p. 3).

WS310182: "Well I think we just spoke about that with the planting of the rice. Looking at different lakes. I'm not a Biologist, I think we have those people that could study that and look into that to see where this could be done, planted and have success with it and that. Bringing that back. Maybe the lake and at once. We could be just re-introducing it to the lake" (p. 2).

WS310182: "Well we are looking at it now. Like I say, I'm not suggesting certain lakes that we tried on the reservation. And maybe some of the waterways too, because some of them are pretty slow moving and that's where the rice is going to grow. Good?" (p. 2).

Extraction

WS310176: "And so, I think it was Wisconsin DNR that wanted to start a trophy bass fishery right out in Sand Cut Slough. So, you got a trophy bass fishery now. And I feel that it competes with the yellow perch. And so, we notice those things. As time goes on. And so, that wild-rice doesn't grow nearly as nicely as what it did years ago, it's pretty spotty now, compared to what it was when we were kids or even teenagers. And we notice that all of these different species of birds and fish and so on, are on a decline. Especially the native species that are threatened by these other species that are introduced such as these salmon that were planted in the Great Lakes and so on" (p. 6).

WS310176: "Yes, especially those native species those heritage species. And right now, over in Minnesota, Winona LaDuke and that group over there, they are fighting with Monsanto. I'm not sure which one. I'm pretty sure it's Monsanto who is trying to get a, what do you call it when you get a patent? There are trying to get a patent on the genotype of wild-rice over there" (p. 7).

WS310176: "Monsanto had nothing to do with it. And yet, they have these powerful lobbies and multi-million-dollar corporations, they have these powerful lobbies that go in and buy themselves a majority of politicians who will pass a law, unjust laws to make it legal for them to do that. Now here in Wisconsin, this Wisconsin legislature, under Governor Scott Walker and his regime, is more corrupt than I have ever seen it in my lifetime. You can quote me on that, I don't give a damn, but that's the way it is" (p. 7).

WS310176: "I've attended most of these hearings on this mining issue. They give you a short notice, maybe a couple days to go down and testify on that. You get up at 5 o'clock in the morning, and drive down to Madison, or West Allis or somewhere else. They give you three minutes to testify on something that's going to affect your people for Seven Generations or more. And if you go 10 seconds over your time limit, they're slamming the hammer down and threatening to throw you out of the meeting. And so, I have attended most of those meetings, get up early in the morning, drive down there, sign up to speak and then wait in line.

They've refused to have, the Wisconsin legislature, refused to have any of those hearings in the Bad River Watershed. And it's the communities in the Bad River watershed that would be directly affected by mining discharge. Now, that's the town of Mellen, Ashland, Washburn, Bayfield and even those out on Madeline Island, LaPointe or the Bad River Tribe or the Red Cliff Tribe. Instead they chose to have some of their local hearings over here at Hurley, Wisconsin, which has a tradition, a mining tradition over there. And even at those hearings at Hurley, there was overwhelming opposition to that mine. That mining bill was written by the mining company GTAC, giving themselves a blank check to operate in any way that they wanted to. The first time around, the first vote, it was defeated, but then they had an election and picked up the Republican side of, they all picked up a couple more seats. It was 2-3 more seats, I can't remember the exact number now, and then when they voted on it the second time, of course, the Assembly had a substantial majority in the Assembly. And then when the Senate voted on it, it was 16 to 17 and that bill only passed the Senate by one vote.

Now I sat there at the Assembly session, all day long. I sat in the Gallery there in Madison and there wasn't anyone in that entire Assembly that could claim authorship of that bill because it had been written by the mining company. Now the Senate said they would take up the bill and introduce some amendments. I attended the Senate session and there wasn't a single amendment that was introduced by the Republican side of the aisle. When our Senator got up and introduced an amendment. Senator Bob Jowl, when he started to present his argument, almost the entire Republican side got up and walked out of the chamber and wouldn't even listen to the argument. They would ring the bell and come back in and they vote to table amendment indefinitely, which is the same thing as saying no. Now I sat there from 11:00 o'clock in the morning until 900 o'clock in the evening and table amendment after amendment after amendment. And so, the bill passed the Assembly and then it passed the Senate by one vote. There was on Republican that held out and voted against it. That was Senator Dale Schultz. But the final vote on that, if I remember was 16 to 17 and passed by one vote in the Senate. And of course, Governor Scott Walker signs it into law, I forget if it was several days later, it was soon, and then right away he announces that he's going to take an economic trip to guess where People 's Republic of China. Now at that time, the number one purchaser of taconite in the world was The People's Republic of China. Several years ago, they declared that they were going to build a super Navy to dominate that part of the world. They've started. They built these artificial islands there. There are several other countries that claim territory there. That is a hot spot and it's going to get hotter.

So, the way that I see it, if we dig this out of the ground, it goes to the world market. We are in the global economy now. It goes to the highest bidder. So, these American corporations no longer have any loyalty to their own country. Their loyalty is to the almighty dollar. Now, we do have a policy for strategic oil reserves in this country, should we get into a conflict with a major power" (p. 8-9).

WS310176: "And so, we have been fighting these environmental issues for over half of my life. I've been directly involved in these for about 40 years now. Including a proposed nuclear waste dump, an oil company Terra Energy Limited that wanted it drilled for oil over here. Keystone Township Bayfield county; a large garbage incineration corporation that wanted to that got to the City of Ashland, the Mayor and some of the politicians there, proposed to build an incinerator, they called the corporation Nutralus out of northern Illinois. They were going to transport to the City of Ashland about 100 times of garbage as a local landfill. They were going to incinerator one of their large smoke-stacks.

And of course, they had mercury and cadmium, and other carcinogenic particulates and guess who is directly downwind, the Bad River Tribe. And so, we started circulating petitions and we fought that one. Another one we fought off was this copper range mining company Solution Mining Project. Where our Bad River Ogichidaa warrior society went down and blockaded the tracks for 28 days. They were trying to transport, I guess they did transport sulfuric acid across that rickety old tressel down on the south end of our rez. The plan was to pump 11 million gallons of sulfuric acid in the abandoned mine shaft in whatever low-grade copper was left. And so actually, that blockade, resulted in bringing Wisconsin Central Railroad to the table. They were the ones transporting it to start off with. So, the guys went down and blockaded the track and finally brought Wisconsin Central Railroad to the negotiating table right here in this room.

Actually, the Wisconsin Central Railroad is a misleading title, because they're a New Zealand corporation. While we were negotiating, there were people from Justice Department, Federal Bureau of Railroads, I think there was a rep from the Bureau of Indian Affairs, and on one side of the table sat the trouble shooters for Wisconsin Transfer Railroads with all of their attorneys, and then our tribal chair Don Wilmer and my son who was heading the tribal DNR at that time and their attorneys. I remember Ed Benton-Banai, who is the Chief of the Three Fires Midewiwin Lodge, was asked to be a mediator.

So, we passed out an eagle feather there and only one person was to talk, was to speak at a time. So, they hold the eagle feather up and it was their turn to speak. I remember when my turn came and I sat in as an elder at that time. When my turn came, I asked him what kind of emergency procedures did they have in case they would dump a carload of that sulfuric acid into the Bad River. Now that tressel is about half a mile long and about 100 feet up from the water. It hasn't been maintained in about 60-70 years and our concern was that just about a year prior to that, the Great Northern Railroad dumped a carload of Benzene in the Madgie River over by Superior, Wisconsin. They had to evacuate that whole area. Wisconsin Central Railroad had dumped a carload of something over in Weyauwega, Wisconsin, I don't recall exactly what it was but it was pretty poisonous. They had to evacuate that whole area. So, that was their track record. And we were dealing with at that time, that's why our guys went down and blockaded the tracks. So, anyway, sometime during those negotiations there was a Wisconsin Central locomotive that derailed within the city limits of Ashland. So, our tribe passed a resolution, the Bad River tribe passed a resolution demanding heavier gauged track for safety purposes.

And they knew that Wisconsin Central Railroad couldn't afford it, they came back and said they would go bankrupt if they had to lay heavier gauge track and they were going to sue the Tribe. And about two weeks later, Copper Range announced they were abandoning their Solution Wind Project. And the latest one of course, is GTAC. After GTAC, we are fighting factory farms now. Over here in Bayfield County, township of Ilene, there is an outfit out of Iowa called Reich Farms that is planning to build a factory farm for pigs. And they are talking about 26,000 pigs. They raise them on a grid. They barely have room enough to turn around and face the other way their entire life. They raise them on a grid over a cement holding tank. They hose them down. All that manure goes into the holding tank. They shoot them full of antibiotics on a regular basis as a prophylactic rather than cure for any disease. And they shot them full of growth hormones. About 80% of what they shoot into those pigs, goes into the holding tank as manure. It goes right through their digestive track. The problem is that is located near the Fish Creek watershed. They're planning to spread nine million gallons of pig manure on those fields over there and that's in that watershed. And when you have the snow melt in the spring-time and also high water it's going to go directly into Chequamegon Bay.

If they poison Chequamegon Bay that's the City of Ashland's water supply. We are also concerned with that, because we have a fish hatchery here and we're releasing an average of about 10 million fry into the two river systems here, Bad River and Kakagon River which runs out into Lake Superior. And a lot of those fish migrate over to Chequamegon Bay which enhances the wildlife fishery for the whole area. Now, if they poison Chequamegon Bay then are we going to be releasing fish into a poison waters? And we've seen what happens in other places where these big fish kills, and with these algae blooms. All you got to do is talk to these people from Kewaunee County down there, over 30% of their water supply is contaminated right now. Or go over to what is the Fox River Green Bay where they have the big algae blooms over there. That whole area is contaminated because of these phosphates. And other chemicals that creates these algae blooms. Now there is certain species of algae that are very poisonous and even deadly such as your blue-green algae. That will result in a big fish kill or any other animal that drinks that water probably isn't going to survive. That is what they've got going there. They come here and tell us that don't let it happen here. But the problem is these multi-million-dollar corporations have such a powerful lobby and have so much money they come in and buy themselves a pack of politicians who will give them anything they want. And so, they pass all kinds of unjust laws. And they try to take away home rule, trying to take away the authority of the cities, counties, townships and so on to protect themselves to eliminate the people's right to self-advance.

Now, and then they'll argue about concealed carry and the argument they use there is self-defense. So, they are talking self-defense there but they don't give a damn about whether the people have self-defense against being poisoned; the environment, the animals, the plants, themselves, their children or their grandchildren. And so, you have a group of politicians sitting down there in Madison that are bought and paid for, political prostitutes" (p. 9-10).

WS310176: "Wisconsin the State of Wisconsin has a long history of good conservation ethics. And in fact, until Walker regime took office, we had a mining moratorium law that focused on sulfide mining. And now, what that mining moratorium law said is that a corporation would have to prove that they could successfully mine and restore an area that they had mined anywhere in the world and all they had to do was prove it. It didn't say no mine. It's says to prove that you can do it without trashing the environment. These mining companies know that they can't do it. So, they got into this gerrymandering and all these districts in the State of Wisconsin, after that, after 2010 when they started gerrymandering all these districts and then this big money is financing the political campaigns of these people that they have especially in Wisconsin assembly right now. Who have no regard or respect for the environment what-so-ever. They're bought and paid for" (p. 11).

WS310176: "And so we are at this point in time we are working pretty well with Minnesota DNR but with the Wisconsin DNR it's a dog fight right now. So, you have Cathy Steppe who is heading up, who is the Secretary of the Wisconsin DNR who is appointed by Scott Walker, directly out of legislature, political appointee, who is into real estate, who has no education or training in Natural Resources or even in Science who is completely unqualified for the position. And so, that's who we have heading up the DNR right now. And in that mining bill, they know that they probably not going to be in office forever, so they more or less castrated the DNR of their regular authority of environmental issues. And that's all part of that mining bill. It's an attack on home row, an attack on the regulatory authority and the DNR and so, we've taken a giant step towards fascism in my opinion. They elected officers according to the Constitution, are supposed to be servants of the people, that's no longer true. They are more like Monarchs or coming full circle back to possibly a futile system" (p. 12).

WS310168: "There used to be until it was ruined by pollution, and the mills, and all that and the motor-boats, and all this other insanity, the jet skis and everything that go ripping around shooting gas and oil on the water and killing the rice" (p. 2).

WS310168: "The pollution is just unbelievable. I know of places that have wild-rice. I visited them. And a little bit later on after the motor-boats and the gas and oil is going on. And they are doing this catch and release fishing insanity. Roaring around up and out with these big motors, disturbing the plants that are trying to get established along the shores. Pretty soon I don't think you're going to find much wild-rice. Real wild-rice" (p. 3).

WS310168: "Now, the Governor, being the type-of-fellow he is, wants to open up the forest lands and the boundary waters and all these other places to recreational vehicles, more motor-boats. Those things are not good for the wild-rice. Every internal combustion engine that spews out into the water, through their exhaust, gas and oil, go to any lake and go along the shore and you can see it floating along the edge. And the rice is very sensitive. Very sensitive. Any of that will knock it back. That's just them. That's not even the acid rain from the mining. The pollutants from the paper mills and other factories: big problem" (p. 3).

WS310178: "Today we have a lot of regulations. A long ago, we didn't have regulations like we do today. They restrict us on what we can do" (p. 2).

WS310178: "Well, when those lakes and rivers freeze up that have the rice, we have snowmobiles and we have boats in the summer, you know. The exhaust and the runoff from the farms, the so-called green lawns on people's properties that effects that Manoomin" (p. 3).

WS310178: "We restrict boats, we restrict motor-boats, snowmobiles and a lot of other gas operated recreational vehicles within a certain area of that wild-rice wetland. We know for a fact because what we saw, this fall, past fall and in the past, that rice prefers clean, it prefers healthy and that definitely does affect the quality of the bed of the wild-rice which then affects the harvest by the Ojibwe people. So, there is a correlation there. We understand as traditional harvester's, a better bed is a way from that kind of nonsense" (p. 3).

WS310175: "I guess it is such a tradition here. Again, I can't even imagine not doing that and in recent years, the rice has not been as plentiful as in the past. So, we are trying to figure out what are the dynamics that way and that's happening? We still have some nice spots. We've got a lot of invasives. Some are natural. Some are not. We try to control them and we get to people out there that they sometimes hand pick this stuff, ok? Because some of those invasives are really taking over certain areas. Some of them are naturals, that compete with the wild-rice for certain areas, like lily pad and a few other plants like that, that grow in a certain area and those big leaves, of course cover up the bottom so the sun can't get down to the rice. That's been a little bit of a problem. And natural controls normally, we had a lot of muskrats that would eat certain plants that would be their food. The muskrats have kind of faded away. They are trapped out or hunted out or something. But they are not as plentiful as they used to be. That's a factor. We are constantly monitoring. We have some areas that are very thinned out. What we did was we hired a group from the Fond du Lac tribe to come down. They have cutters that they use underwater, cutters for rice propagation. So, we had them come down and cut some areas. And we replanted those areas with our own rice. A couple of those areas really came back strongly. So, it was the right thing to do" (p. 1).

WS310175: "Now there's a question. Because I have heard that in some areas, they want to use only genetically altered wild-rice, which won't grow by itself. Only natural rice will do that. And there was a rumor that they might want to try to do that to get it to mix in with natural rice stands so that those people that use natural rice will lose their food sovereignty in terms of that and have to buy that stuff. But it tastes awful. It doesn't produce itself very well. You got to have to have a scientist there for it to reproduce" (p. 4).

WS310175: "Then there was coal coming in on the ships to fire those plants. And so, they were burning coal and wood and stuff like that, so there was major pollution in the area. In matter of fact, they got a clean-up of the bay going on right now. They are trying to clean up all that old junk that's down there. I suspect it has reached us in some form or the other possibly through the water or most likely just from the sky. Because those air borne pollutants can travel a long-ways actually" (p. 4).

WS310175: "Fortunately, it has not wiped out the rice. They have cleaned up a lot of their act in terms of that kind of stuff. They don't burn coal anymore much. I think the power plant still does, the LSDP, Lake Superior District Power in Ashland there. I think they may still burn coal. But most of the other businesses don't do that anymore, so that's helpful.

But then they also have those scrubbers on those stacks these days to help drop that pollution level down. We're hoping that will not affect the rice in the longer term. I suspect it has a little to some extent over the years, but it is still there. We want to keep it there!" (p. 5).

WS310175: "Well again, that tradition of our wild-rice and our other food sources and trying to keep the waters clean. By using less pollution in the waters as well as in the air, that's an important thing. I think if all people observed that, we would be far better off. I guess in some areas around here, are very much being farmed again" (p. 5).

WS310177: "We know Monsanto is looking at, their goal is to have 100% of the seed in the world. Who would want that? You know? And for what purpose? You know? And it's just so bizarre to us. That somebody would want to take all of the seeds in the entire world and keep them. To be able to manipulate them for what purpose? So, what we want is to find out the original seed. The original seed and to be able to nurture that seed back here. And that we ensure our people that we have that food from that seed. And see later on in the future, the difference between them. You know?

If we can grow crops here, from that natural seed here without any interference from other GMO plants, we might have something here, you know. We might have a much healthier population than anywhere else, you know? But we know, that the other tribes are doing the exact same thing, they're thinking that way, you know. And it's too bad that we have to think that way. That a seed, something that was gifted to us by the Creator, has been manipulated so much by humans, you know? It wasn't perfect enough for them, even though the Creator made it. Isn't that crazy?" (p. 3).

WS310177: "Oh, ok, industrial activities such as shipping on the Great Lakes. Before, and we're not even sure if this is even being monitored or not, where they're to release the ballast water of ships before they reach the Great Lakes. Nobody has given us of any reports on whether that's being done" (p. 4).

WS310177: "People are tired of seeing the concrete jungle every day in the cities. And they take off and they try and find a place like this to come to, you know? But at the same time, some people come here and look at it from a different perspective. Oh, I wonder if those hills have silver and gold in it. Oh, I wonder if there's oil over here. Oh, you know, right away, that mindset can't be released from people, that they can have some kind of monetary gain from the destruction of the environment. And that's civilization. So, if that's civilization, I'd rather stay an uncivilized pagan!" (p. 5).

WS310177: "Yes. And actually, like not this past season, but the season before, we had so many those aggressive plants coming in in areas. We actually requested assistance from the Fond du Lac band in Minnesota to come over and what they had done in their rice fields was that they had retrofitted an air boat with these blades in the back. And so the air boat went back and forth through their rice beds and cut everything down. So, even the rice was cut down but there was very little rice to begin with because there were so many aggressive plants in there. So, as a follow up to that, we had to take all that was cut down out of there, because we couldn't leave it floating in the river. It may create these floating mat islands that would run right over the rice. So, what we did then, is we removed all of that and then purchased rice from the tribal members during ricing season and threw it back in in those areas" (p. 5).

WS310170: "In rice, in one of the areas, we think about, is this, genetics of it. In this whole idea of having wild-rice industry and what that has meant to the traditional harvesting practices or what it's meant to traditional harvesters themselves. And what might the future be there? I think we've been lucky so far that wild-rice hasn't been genetically engineered. That is certainly something potentially on the landscape now a days. And that is something that the tribes feel very strongly about and very strongly opposed to the idea and that the rice was given by the Creator in its perfect form. We shouldn't be meddling with that" (p. 2).

WS310170: "Now as a researcher, I'm interested sometimes in understanding it and studying it. But even that I think, it sometimes raises some red flags for tribal members because of the idea that the information we might learn, might somehow be used in genetic alteration which I don't support in any way and have real concerns about" (p. 2).

WS310170: "There is a disease called brown spot disease that is associated with warm wet weather that seems to be occurring more frequently. We have seen greater outbreaks of this disease than we did in the past. There is just a whole lot of things that rice has been negatively impacted and going to continue to be negatively impacted" (p. 4).

WS310170: "There might be more that a historic bed work that we might have to do. The beds that are out there, like the one we are meeting with later today, their concern is the beds are decreasing" (p. 5-6).

WS310169: "As we seen different things or issues come about, from mining concerns about how they would have an impact that would have on wild ricing in our community. Definitely brought our community together in terms around a common issue that would impact our community with specifically the future of the wild-rice. As time has gone on there have always been other concerns that's popped up before that in terms of protecting that rice" (p. 1).

WS310169: "And so, I'm thinking about the things that have impacted our communities, it's been a lot of lumber mills, had a hug impact on our communities where a lot of riverways, and different things like that, we can't even use that in some cases, because those old lumber companies that used to be in there, some of those logs and different things, you can't go in certain areas down the river, because the impact it would have on your boat or motor. On the rice itself. Then you have other things that come into the area, the purple loose strife, other things that have economic and cultural impact on our communities as well as the rice itself. That's huge" (p. 5).

WS310169: "I know we are trying to work back and combat those issues, but some of those issues should have never been there. I always think we should learn from our mistakes in the past. I think about the mining issue that popped up recently. That's something that should have happened 40-50-60 years ago, but now we are having that same discussion still, about what is the lifeblood of our people? Not just native people, but Anishinaabe. The water. And without that clean water, it's really hard to press to say that it won't have an economic impact, or cultural impact, or impact on the community in general" (p. 5).

WS310180: "It's attractive if all those things and if we listen beyond people and books and cultural, even beyond cultural heritage and baggage and pain. Whether we're the ones who destroy the wild rice beds or we're the one that keep the wild rice beds, if we can hear underneath all of that and listen to the Earth herself and the rice people and actually to what there are names for to the spirit world, that can guide us, then it's attractive. Then it's attractive" (p. 3).

WS310182: "Well, the rice that we do have is on a river. There may be some harm to the rice from things coming off the reservation in the water system. We have from the farms, the run-off, but we've never really tested for any damages from that. We still consume the rice, eat it. But it seems to be ok" (p. 2).

Family Traditions

WS310178: "Well, I think in the past, once the treaties were once again established, back in the 80's when they were, when there were once again recognized as being a legitimate avenue for people to hunt and gather as our ancestors did many years ago" (p. 3).

WS310175: "Well, it is for us a very important crop. Our traditional harvesters bring in a lot of rice during the season. We monitor, very closely, our natural resource department monitors wild rice very closely. We have a special relationship I guess with wild-rice" (p. 1).

WS310175: "That's the way most people rice now. There's still people, a few that tradish. You know, they still use the traditional way, but not very many" (p. 3).

WS310175: "Well, it's just about everything. Those traditional things that we harvest and again we are hunters and fisherman. All those natural resources that we have on the rez, it's a pretty wild place. This highway goes through here, that's about it. If you're a mile off the highway, you're in the bush. There are a number of places where we traditionally fish and hunt, things like that. A lot of people are gardeners. That was a big tradition here at one time. Way back in the early 1900's, they had a fair here. And people would raise, I think

Norma's has some photos of that in the library that you might be able to get a look at, some of the foods that they grew here. The colder weather foods will grow quite well in this valley because if you get farther east towards Birch Hill, it gets real sandy up there and there's a lot of clay. Down here by the rivers, by the Bad and the White Rivers, where the rivers used to flood in the spring, they deposit topsoil" (p. 3).

WS310175: "So, there's probably a foot of topsoil in that whole area down there. That's where all the gardens were held. And Odanah in itself, the old Odanah, was originally called Gitigaan, meaning the Old Garden. So, gardening has been a real tradition here for a long time." (p. 4).

WS310170: "Personally or? I guess that's an interesting question for us. I'm not a tribal member. I've worked for the tribes now for almost 30 years. When I first took the job, a large part of my job descriptions must be related to the wild-rice. And I knew almost nothing about wild-rice at that time. So, I have sort of my own personal work traditions that have developed over time. But then, we also have become ricers and we are harvesters as well" (p. 1-2).

WS310169: "The one thing that always making sure those traditions carry on with our youth. Our elders have that opportunity to share that knowledge" (p. 1).

WS310169: "When I go out ricing, I don't think about just me. I think about my family. I think about those ones not here. I think about those ones who are not here yet. I think about those that are not here. When I think about my grandfather, or some of my uncles who passed, or my aunties or my grandmothers, that's just important to think about how this is important to the relationship of our connection to the wild-rice" (p. 1).

WS310169: "But in the end, it's thinking about those that can't do it anymore. I think about my aunties who can't go out there anymore. And I always think about them first" (p. 2).

WS310169: "My traditions are like culture, it's never stagnant. I keep some of those memories alive in terms of some of the traditions I do. It's carrying on what we had before us. When I was a kid I used to be paddling down the river, now it's motorboat" (p. 3).

WS310169: "Kind of the same thing as question 7, I think it's important. I just don't want to take away from some of the traditional methods. You have to figure out the balance between the two. Don't assume that, just because it works in one area doesn't mean that it will work in another area. I've seen some people say, well, it worked in Florida and it worked for one of the tribes down there. My response is that's this ain't Florida. We may be the Everglades of the north up in Bad River. Our water and our system is a lot different. Our animals are different. We always have to think about those too. It's not just about us. It's about that kin relationship with the land and those animals, the migizi, the otter, the bear, the raccoon and those insects too. And so, I always try, making sure that being mindful of those that have always been there, long before the Anishinaabe cultivated that rice" (p. 6).

WS310169: “In my community no, specifically. Not that I have heard of. Not to say that there hasn’t been or been in discussion, or has taken place in the past. I think a lot of our sites, a lot of us would like to go to, sometimes are a little hard to get to, traditionally now a days. Traditionally they would have been easy to get to because of the water. But now you think, well, how is that a problem. But sometimes, some of those places are hard to get too, like I was saying with logging. Some of the areas, you can’t get your boats into certain areas because they under water, some of those logs in there, will ruin your boat, or in some cases, damage them completely. So, I think the idea is making sure that. from my perspective, it’s to always go to do those sites that we have been taught to go to.

For certain families go to certain areas too. I asked so and so, I said why do you always stay by this big old pine tree over here? He would say, my grandpa and I have been doing this for years. I just wanted to hear him say that. From my perspective, people are really territorial with some of those things. There are certain spots when I go ricing as well, and some of the places I ever go, you see it’s kind of like routine. You get stuck in some of those routines. I think from my perspective, if there’s an opportunity for us to think about other areas on our reservation or community that could potentially, or historically had it and for some reason went away because of issues of industrial recreation or runoff or activities. I think that would be interesting to have that discussion again. I’m trying to say I’m not for, I’m not trying to say that I’m against, I’m saying, it would be interesting to have those discussions as to why it’s important to have those discussions” (p. 6-7).

WS310175: “Well, it is for us a very important crop. Our traditional harvestors bring in a lot of rice during the season. We monitor, very closely, our natural resource department monitors wild rice very closely. We have a special relationship I guess with wild-rice” (p.1).

WS310175: “But the people, all honor the rice and we actually have ceremonies that go on in the spring and in the fall. I’ve been on the wild-rice committee and the elders committee a number of years. They ask the elders who have grown up with the rice to monitor and to go out and check when it is ready for harvest. The natural resource department hosts a number of ricers who go out after that. So, it’s very very important of our culture here. And I can’t remember ever not being around wild-rice. My grandparents, my parents have always riced and had always had rice to eat. I think I just had some yesterday” (p.1).

WS310177: “And so, then the rice would get checked. If it was broken, you’re out. You cannot dance rice because you’re too heavy. If the hulls didn’t come off, you’re out. Because you’re not heavy enough to release the hulls on the rice. And if it came out and the hulls were falling off, just by blowing on it, then you’re in. That’s what you did this year for the rest of the year, for the rest of the season there.

So, in one way it was good but you would dance the rice the whole time. You had so many breaks during the day and that was it. From there, then it was the winnowing and then taking and separating the ones that didn’t come off. And then sitting at the table with the elder women and they’re sitting there and they’re talking. And you don’t even want to know what they were talking about. But they were telling you how women sit around the kitchen table.

That's how it was and so as a child, you sat there quietly and absorbed all of that and did your work.

And it was all your cousins were there, brothers and sisters, everybody had a job to do. If it was spreading the rice out on the tarp, to gathering the rice up from the tarp, it was different stuff. And so that's it. And I'm sure like back in my mom's day, they camped out right at the sloughs, and harvested and processed some of it right there. And then they came back up and finished rice and distributed it to those who needed it" (p.2).

WS310177: "It's sort of like if you go into a Headstart room, and the teacher says, ok kids you're going to do this and they look and they see a kid next to them who isn't doing it. Well I'm not gonna to do it because they're not doing it. And then, what is it that the teacher has to do to bring those kids around to be able to do something. And who's the teacher here, to people? In general, you know? How many people are actually looking at their carbon footprint and what they're doing to the environment. Each individual has to do that, not just Native people. And not just you know environmentally conscious people. Everybody has to and I never even thought about it before. And somebody asked me and I said, they said, well do you drive a car? And I said yes, I drive a car. How many miles to the gallon do you get in your car? I said 49 miles to the gallon. He said well that's pretty good!" (p.5).

WS310177: "I just hope that future generations will be able to taste the wild-rice that I've tasted in my lifetime, because I grew up right next to that river that makes that rice. That was my life. I could smell it growing during the flowering stage of the rice, during the floating leaf stage of the rice. You can smell the wild-rice growing. And it's so strange that I've been to other places with rice beds, and it doesn't the same smell. It's a very unique smell on the Kakagon River and there's something about it that calms you. So, it's like you get up in the morning and you smell that smell of the rice growing and it's so, it's like life it starting, you know? And you get happy about it because you know it's to come. And I just wish that where I live, which is allotted land in my family, that my great-great-great-great grandchildren will be living there someday and they'll smell that same smell. Because my great-great-great-great grandfather, right there (pointing to poster in background), lived there. He smelled the same thing" (p.5-6).

WS310169: "You know from me, my tradition is, with going out ricing, I'll take a step further back. I'm just contemporary. I will think about when I was a little boy. My tradition first was waking up my dad early. I would say, dad, we got to get going. He would tell me, it's too early, its only 2:30 in the morning, its' dark out, we don't get up for another couple more hours. I would wake him up half an hour later. Dad we got to get going. No we can't get going it's too early. From my perspective, I was so excited, I wanted to get out there. You know I wasn't able to push the canoe or knock rice, I was just in the boat. The cool thing, was because I was with my aunties and uncles and my cousins, my grandmothers and my grandfathers. From my perspective, that was the most exciting part. That was the traditional part. I'll take it from that lens. Thinking about my mom, who is unfortunately no longer with us, think about what she packed up for me in terms of my food for the day. The water and what she told me to do to keep it cool while we are out there. I still do those. Even though my mom is no longer here, I still kind of do that routine still. I wake up super early in the morning, I'm always excited, thinking about the rice for the day as well as how hot its going to be out there as well as traffic. Taking precautions in terms of clothing and different things like that making sure I'm prepared. Then I always put out my asema (my tobacco) not only to the water where I'm going, but the land where I'm on. Thanking the land spirits, making sure it's a good voyage back to the land and to the place where I put that tobacco down. I always put tobacco down or asema or kinnikinic right next to my house. Because I always believe that's the place where I'll always come back to. Even though I believe in Madison now, it's just as important to think about. As we talk about our traditions, you never make a prayer for yourself. You should always think of those that are no longer here. Someone is always praying for you too. When I go out ricing, it's determining who's the pusher or who's knocking the rice" (p.2).

WS310169: "Nothing specifically, one thing I would like to note, from my perspective, rice is like water. It is a lot of our things. It is the blood of our family. I can't speak for the community. I'll speak from my family. I always think about the first time I put my hand in a bag of rice and eat it raw. Not cooked. I remember eating it cooked. I remember eating it popcorn style or popping it in a microwave. I remember eating it in a casserole and other things that people make with it now.

In the end for me, it's just that smell in the morning, when you're out there. Thinking about those, thinking about what you're doing. I always think back. I could be in the same spot that one of my ancestors was here 150 years ago, 300 years ago, 1,000 years ago or however long you want to go. And from my perspective, that really makes me feel very humbled and honored. And sometimes, it almost breaks you down and want to cry, because it's that overwhelming to think about, because I'm doing something that they did and they carried it on and then that piece of them is still here with us today. Even though I never knew him or her. That's one of the most powerful thing in the world I would say" (p.7).

Feasts

WS310176: "Our community recognizes wild-rice as being sacred, because it plays a very important part in our migration story. We use it at every feast. When it's available that is, which is most of the time. And the Kakagon sloughs, located on our Bad River reservation is probably the biggest area of wild-rice in the Great Lakes. And so our traditions go way back, concerning the wild-rice. It's something that is very special to us as a people: the Lake Superior Ojibwe (p. 3).

WS310176: "And so, this is still recognized as sacred ground. And a very special area to the Ojibwe, the Midewiwin, especially the three fires who have their spring ceremonies every year over at Matagin Park. The big tribal campground. One of my teachers an elder called Joe Magwanabe. He said that Matagin should be Midewegon, instead of Matagin. That Midewegon is that big initiation lodge that is used by the Grandmothers Society. So, every spring they come here.

Now, I have a campground right on, a private campground, right on Lake Superior. I live out in the woods. They held their spring ceremonies at my place for about 7 years, until they became so large they outgrew my place and moved over to Matagin. It has about 4 times as much camping capacity is what I have. And so, that's where the 3 fires made the people of the Ojibwe and the Odowa, the Potatwatomi and all of the other Algonquin speaking tribes that are also associated with the 3 fires confederacy. The Menominee and all of these other Algonquin speakers. And so, this is a very special place.

Out on the shores of my campground is where the Grandfather stones come ashore. The round stones that geologists call concretions or we refer to them as Grandfather stones. We use those in our ceremonies and in fact, they are used to tie the head on the Little Boy water drum. We use 7 of them that represent the 7 Grandfathers, in our traditions, and the little boy that brought the teachings" (p. 3).

WS310168: "My community off reservation? Ok well off reservation the people that we experience things with, we use wild-rice when we celebrate something. It's not a everyday staple for us like the potato or whatever of the non-native. But when we have a celebrational feast, we always include wild-rice" (p.1).

WS310178: "Wild-rice at the community level, there's a lot of respect here. Every year, we have an annual wild-rice festival, that's to honor the hard work that the people do to harvest and process and make rice available for the family and community. It's a very, very wonderful relationship that we have with that rice here. There's many different types of ways that our community prepares that wild-rice. A lot of the times, you'll see that locally harvested wild-rice" (p. 1).

WS310178: "Even as a thank you, sometimes, for spiritual dishes during specific ceremonies or various other ceremonies and commitments. So that's a small peek at what our relationship with the rice" (p. 1).

WS310178: "We understand that rice requires feasting and talks in our ceremonies. A lot isn't done on their part. It's done on our part. It's not really done on their part. So, until they request information like that from us. I think they're going to have a hard time with that. There is a spiritual component. They want to maintain that it's purely a scientific thing" (p. 4).

WS310175: "But we do try to honor it. We do have, in the spring and again in the fall, we have ceremonies like that for the water and for the wild-rice. In the spring, we have Midewiwin, the ceremony to ask for protection on the water for all the things that we do on the water" (p. 1).

WS310177: "And it hit in the wintertime during Thanksgiving, during Christmas, during all of these events where wild-rice was feasted with frequently by everybody. Every family felt it, because there was no wild-rice was to be had. They let it be known that they missed it so much" (p. 1).

Funerals

WS310178: "You'll see it at our funerals. When our beloved ones are leaving" (p. 1).

WS310178: “And much earlier, we have had a lot of funerals, in the past here, but you know that wild-rice is usually that number one food to help our relative travel to the other side. That wild-rice has so much respect here in our local community as well as other reservations, and so we have a responsibility” (p. 5).

WS310169: “Because, I‘ve never been to a funeral in my entire life on the reservation, without wild-rice from there. Even with people who are not traditional people. I always see wild-rice there. I always see deer meat there. I always see fish there. Even if it’s been a bad harvest, like one of our years from wild-ricing” (p. 5).

Identity

WS310176: “And so, we have been harvesting rice since I was 9 years old and my brother was 7 and so, it’s something that, it’s something that’s a part of who we are and what we are” (p.5).

WS310176: “To our identity as a people. Our land base is as strongest thing that we have in our traditions, our culture and so on. And we have to spend a lot of time and energy to preserve what we have left. Even though it’s just a fraction of what we once had. And so, as each generation is born and reach adulthood, they take on that responsibility of looking seven generations ahead. And asking themselves what will I be leaving to my grandchildren or even those yet unborn. And that’s a very serious responsibility. When I think of all the things that have happened in my lifetime, in regard to the environment., I have some very serious concerns as to what my grandchildren are going to have. And so, the Seven Generation Environmental Ethic is very strong for our people. And I’ll say this, they’re not going to poison my grandchildren. We will do what we have to prevent it to stop. And I’m going to do it. That’s the attitude we have to take. There is a certain people that come up to me and say “what if” and I tell them well, start out with, you’re not thinking the right way. Instead of saying “what if”, you gotta say Gawin. No! Not gonna happen. And if you’re not willing to stand up and fight then get out of our way. And we’ll do it” (p.13).

WS310168: “And as far as the reservation goes, I embrace whatever practices that are being traditionally done. And it’s a good thing. Trying to keep the people and the culture alive through the traditions that were passed down and the wild-rice, is after all part of our given name. Not our aboriginal name……waskeymatchtowok. The ancient moons of the seasons. But, that means we also went and harvested the wild-rice when its time. Wayitskeyso Rice Thrashing moon September, that’s when we did it, so that name waskeymatchtowok, would be to believe that, we follow the seasons that did the wild rice” (p.1).

WS310169: “I’m from one of the Ojibwe nations here in Wisconsin from the Bad River Band of Lake Superior Ojibwe or Chippewa. But I always prefer to go by Anishinaabe. Although, yes there are multiple bands of Ojibwe in Wisconsin, yes, there are multiple bands in Minnesota and Michigan. We are the same people. Canada is the same thing with Ojibwe and Anishinaabe up there. And we have a connection to each other. Not just language and culture. But even deeper than that. And so those roots go a lot deeper, I was thinking” (p. 1).

WS310169: "Depends upon who you ask. I think it's important to think about…it's kind of like land. People always ask, I always say that I live in the Ojibwe communities or territory. That's the Creator's territory. He created it. Not me. When we talk about those from being, our land or your land, my perspective is, there is something lost there. My thing is that in the end, the Creator created that and he never said this is yours. This is just yours temporarily" (p. 4).

WS310180: "So, the important thing to know is that I'm native to Wisconsin, but I am not all native or tribal. So, I didn't grow up with the stories. What I know, I know because of my interest and my experiences and the people that I have been blessed enough to have in my life. I am not some who can offer the stories" (p. 1).

Invasive Species

WS310176: "We used to travel down either Bad River or Kakagon River and there were numerous muskrat houses. And the wetlands of both sides of the river and you just don't see that anymore. Now those muskrats dive under and they eat a lot of different kinds of roots. And one of the problems we have now is that these pickerel weed which are not an exotic, but a native plant are starting to crowd out a lot of the wild-rice. We think that maybe it's because we don't have those large populations of muskrats anymore. So, when it comes to the web of life there's so many different relationships" (p.5).

WS310176: "They haven't quite figured out what the problem is now. But one of the biggest problems is there, is that that fishery is producing plenty of fry, little ones, but there's a certain age class that doesn't survive to spawning stage. And so, they have a lot of zebra mussels there, that's a new exotic" (p.6).

WS310175: "Not really, that I am aware of. What are doing though is reseeding in areas that have been invaded. A lot of the invaders and then reseeding those areas that had traditionally had rice, but now there are other invasive species that have taken over several of those areas" (p. 5).

WS310177: "But we see invasive species from Japan, from China, from you know, Germany, from you know, India in our waterways. In our ditches. Right behind you, there is an invasive species.

Where it came from, we don't know? But the other thing too, is that we're calling it invasive species and we have to think in a different way on this. I mean a lot of people from, non-native people, will say that's an invasive, that's an invasive, that's an invasive. When I started hearing that so often like that, I thought, what? Wait there is something wrong with this. If the Creator placed it here for us, then is it really invasive, you know? Whether it got carried over in a ship, or whatever, it made its way here, so maybe we better learn about this, and how to work with it" (p. 4).

WS310177: "Very effective here. As far as conserving the rice, in the areas that we have been able to reach, because you can only do so much in a 16,000 acre area, with six guys, right? So, I shouldn't say six guys, I should say 7 people because women are also part of the crew, that are trying to harvest species that are encroaching on the rice bed and at the same we are trying to identify those species. Looking at where did they come from, you know? Where did they originate at and what is the purpose for them over there?" (p. 4).

WS310170: "Maybe its because the brown spot is taking out the seed production. They may be actually going to existing beds and trying to fortify them again.

And another thing that is going on a lot is, and Lisa works on this a great deal, is that quiet plant management issues. So, you know we have invasive species and some of them are showing up on the rice beds. Well, what's the best way to go forward on those situations, if you've got curly leaf bounded milfoil, how do you treat those, but you don't want to have unintended impacts on the rice beds.

So the curly leaf is encroaching the bed, but the only way you're going to get that, would be to chemically treat. We don't want to chemically treat in a Manoomin bed. So, will they reach an equilibrium? You know, will the plants? Is this the best way is to just sit and wait and see. When you have the lake association people that maybe don't have the same feelings that we do, and what we do for the rice crop there? They are like, hammer and hammer it.

And we are like no, we got to get a stamp of approval of the treatment that's so close to a Manoomin bed. So, in some ways it's a wait and see game on some of these waters" (p. 6).

WS310182: "Well, for the Menominee people, wild rice is actually our name. In our language we say Omanomanawok, the People of the Wild Rice" (p. 1).

Origin Stories

WS310176: "The wild-rice, like I said, plays a very important role in our migration story. There are many different stories out there that I've heard from many different people. And one of those stories talks about a time when we were living in a western Great Lakes area at that time. In hard times fell upon the people, there were certain messages that came from the spirit world. That told the people to prepare for a journey along migration that would take them to the East. So, it was a journey that probably lasted for generations until they finally came to the Great Salt Water barrier, that we know as the Atlantic Ocean.

So, they live there in prosperity, for many generations. Next to the shores of the Great Salt Water, enjoyed all of the seafood, planted gardens. We're living a good life. Then there was a prophet that came among them, that received messages from the spirit world. And told them that they should prepare for another migration journey that would take them back to their original lands.

Even though they were living in good times, there was a lot of discussion about that. And this prophet spoke of a turtle shaped island that they were took for and also a sacred shell called a Miigis that would act as a guide on this migration journey. And so, the first place that it appeared was off of the shores of a turtle shaped island, on the St. Lawrence River coming off of the Atlantic Ocean there. And so, the people began their journey there. There were different signs that were given to them from the spirit world. They were told to continue westward. There are some stories that say that when the migrants appeared, on those shores, people lived in good times and then when it sank, when it disappeared, they started experiencing hard times and it was time to move on.

And so, the second stopping off place on the journey was at the place of the Great Thundering Falls, we call it Niagara Falls today. So, they lived there for quite a while. And that was the second place where the Miigis appeared to them. The sacred shell. And then it sank, it disappeared and so they prepared to move even further westward.

So, the third stopping off place would be a place we call Detroit today. And so, they lived there again until hard times fell upon them. So, then they moved to the place that we call Manitoulin Island. That would be on the other side of US-Canadian border today. That would be Canadian. And so, then from Manitoulin Island, they moved to Sault Ste. Marie and that was the place of the rapids. There were a lot of fish there. White fish and main lay and other species. They lived in good times there until hard times came again.

So, they continued their journey westward. There was one group that followed the southern shores of Lake Superior. Another group that followed the northern shores of Lake Superior. They came together in what we know today as Duluth, Minnesota. And so the migration journey to place upon the water in a very large canoes so they traveled up the St. Louis River over there. They stopped off at one of the island in the St. Louis River. They sent their scouts out to look around. And in the prophecies, they were told to look, they would be very close to home when they came to a place where food grows on the water. So, these scouts came back and they found Manoomin, the wild-rice growing in these inland lakes.

On the St. Louis River. And so, they were told by the prophet that their journey would come full circle. It would begin at an island and it was end at another island, but according to the prophecy, they would be home when the Miigis appeared for the seventh time. So, they went up to the high ground. They usually went to the high ground to fast and to seek a visions and knowledge from the spirit world. So, they went up to that place over there called Spirit Mountain. There’s a skill hill over there now. They fasted and they were told to double back to a place called maninganaqaning. So they double backed to maninganqaning. The island of the Yellow Hammer. And the Migis appeared there for the seventh time up at the shores of Madeline Island. So again, they sent their scouts across the waters.

Across the Long Island into the Kakagon Sloughs and they found the manoomin, the wild-rice growing more profusely. They weren’t seeing it anywhere, so they declared manoomin to be sacred since it was one of the important signs according to prophecy they were to look for. So, they settled at Madeline Island and in time Madeline Island became the center of the world where the Lake Superior Ojibwe historically, culturally, politically and even spiritually. Madeline Island Ashwamegan bay, Kakagon sloughs is a very special place to people on both sides of the US-Canadian border since probably half of our people live on the other side of Canada, on the other side of the border.

But we recognize ourselves as all one people. Even though we don't see that border as separating us. And so, we are the Lake Superior Ojibwe." (Page 1/2)

WS310176: "And there were other signs too. There was a time when the people were disoriented and confused. They looked out on the big water and there was Nigig, the Otter, a spirit Otter. He dove into the water and he came up in the East. Swam back in the center and dove into the water and came up in the south, the west and the north. He gave the people the four directions on the Medicine Wheel, the four cardinal points of the universe. First on the East, South, West and the North. The people were no longer disoriented. And at that time, they were disoriented not only as a matter of place, but also in their mind. That's a very powerful spirit. In our traditions, they call him Nigig. That's my son's Indian name, they call him Nigig" (p. 3).

WS310168: "Origin stories. I don't know an origin story about the wild-rice. But I do know that the wild-rice is said to have always been, always was part of the Creation. It was the food that grows on the water and that the people followed. And, without it we would have perished, just the Irish had to have their potato, we needed our manoomin. Pacoochmanoomin ~ Wild-rice Mamachatmaanoomin ~ Indian Rice" (p.1).

WS310168: "Pacoochmanoomin ~ Wild-rice Mamachatmanoomin ~ Indian Rice Mamachatow ~ Indian grain" (p. 1).

WS310168: "Yes, there's actually a couple of stories of wild-rice and how it came to be. One of our uncles, we usually don't say his name until we got a little snow on the ground. One of our uncles, one time, he was walking along this lake and he was starving and he was so hungry. I'll give you a short version here. And our uncle he was so hungry, one time, he didn't, there was no food. There was snow on the ground and there was no deer to be found. There was no plants. There was no smaller animals like Waabooz, or any of the smaller or banawak or birds or anything. There was nothing to eat, you know? So one day, he's so exhausted and he was crying and he was sad. And, he hears this little voice from the lake. The voice said, why are you crying, Uncle. So, the man looked up and there was this Zhiishiib, this duck standing there. Well, there is nothing to eat here. And that moment, our uncle had thought about killing that Zhiishiib, that duck. So, what he did was, he invited that Zhiishiib over. Just as Zhiishiib was close, he was getting ready to take him out, and then he basically said, well, before you try to take my life, that Zhiishiib told him, he says, I can help you with some food.

So, he says, what do you see out there in that lake? And so, Zhiishiib looks out on that lake and all he saw was a few plants. And then he was, oh, I see some wrong plants out there. He goes, well on those plants out there, he said there is something that can, once you cook it, he says it'll cook almost nothing into a lot of something. If you get enough of that plant, so he told that Uncle, he says go put that kettle of water on over there, we'll see, I'll show you. So, that bird, that Zhiishiib, swims out to that Manoomin out there. And he eats a bunch of it. And he comes back and Uncle had a kettle going. And he's like, well here's my kettle what are you going to do?

So that Zhiishiib reached into his mouth and threw it down in his stomach and he pulled that Manoomin out. And he put that inside that kettle. And Uncle was amazed because when he saw those little pieces of brown Manoomin and

over the next 10-15 minutes, it would puff up. And so, it was almost nothing and it turned into something. And that was the first time Anishinaabe had tasted that Manoomin. There's actually two versions of that story. That's the Lac du Flambeau version. There's a really funny version from Lac Courte Oreilles, it's very similar, but that's the first time our people had the Manoomin. We learned it from the ducks. Zhiishiib" (p. 1-2).

WS310175: "You probably heard of the story about the Ojibwe moving west until they found the food that grows on the water" (p. 1).

WS310175: "Well again, the Ojibwe people, long ago, when they were living in the East near the Atlantic Ocean out that way, before they came west. They came west because someone had a dream that there was a white scourge coming from the East. So later, they weren't sure what that meant. In that dream, they were also told to head west until you find a place where the food grows on the water. And so, they started to move and it took them probably a couple hundred years to get this far. Not that it would take that long. They stayed in certain places. There were actually 7 stopping places all together. And some claim there is an 8th that is farther west" (p. 2).

WS310177: "So, what was the question? And I was telling you that there is an intangible relationship. The other relationship is our memory. And our memory is of our migration story and how that food grows on top of the water. That food. Manoomin. The good seed. That's what I feel that our relationship is they feel a loss of it. They grieve it when it's not there. That relationship is very strong in our community" (p. 1).

WS310177: "I think that there is an origin story of it. I don't know it to the full breath. So, until I do, I won't share it that much. I just know that it was described to the people as food being on top of the water. When we got here, it was already inhabited here. So, for example when Radisson and Grossier, the first French contact that was made around 1692, 1700's. When they came in they had documented something like 9 different languages that were being spoken, all here. What that tells me is that there was a huge community here. There were 9 different tribes that were here. More than likely, when we came here it was already inhabited by other tribes that were native to the area. When that relationship grew with each other where we could speak each other's languages, you know, 9 different languages. When you think about that, how many languages do you know?" (p. 1).

WS310170: "It's hard to overstate the significance of Manoomin to the Anishinaabe people that I work for, it has significance. There's cultural significance that goes back to the

Ojibwe's creation story and that brings back so much importance in and of itself. There's all the sort of subsistence significance of wild-rice" (p. 1).

WS310170: "I should be able to do that very well and I would prefer not to do it, because I am feeling a little rusty on the origin stories. I tend to talk more about the migration story and so I'm more familiar with the version of that they share with me. That would be better coming from Joe when you talk to Joe Rose. I think we would feel better. Probably from the origin story too. If you're talking to Joe, those are good to refer to him. You will be in the presence of greatness there" (p. 1).

WS310170: "The Creator. That's the story too. You need to use it and to keep appreciation going. If you don't use it, Creator might take it away" (p. 3).

WS310169: "I think it's in many respects; it's hand-in-hand. I don't think there's any separation between the two. I think that traditionally some of our stories, we talk about, traditionally talk about going to where the food grows out west and some of those different stories that talk about why it's important to carry on those traditions" (p. 1).

WS310169: "From my perspective, I usually refer to one of my elders in my community first. And ask him or her that honor first. And obviously, one of our stories we always talk about is to have those be told when our first snowfall comes. From my perspective, I always ask my father for that permission because he is my teacher. He always will be my teacher. He was my first teacher since I was a little boy. His teacher was my grandfather. And my grandfather before him. From my perspective, that is the one who I always ask and I refer to. I'm very proud of that because I come from Ogimaa, which is Chief blood. Having those things carried on, I always make sure I'm mindful of that because I always want to walk in a good way with a good heart. Thinking about our origin stories, I carry those very deep and I cherish them. I share them from time to time with people, but I always make sure I ask those before me, my father and others and I let the participants know, or people that I talk with about it, that I do apologize for speaking in front of my elders first. Because I would prefer to have them talking versus myself. Especially with our origin stories or where we come from because I'm always learning different things and different ways of telling those stories just from those folks" (p. 2).

WS310169: "The way I always talked about, I go back to that initial question is that….when the Creator created this Earth, he told some of the indigenous people, some of the different folks, he said some of you guys go this way, go out West, some of you go South, some of you guys go East, some of you guys go North, some of you stay in the Central. You have a commonality of upholding this Earth. At the same time, you guys will have some different traditions, and languages and cultures, but that's what makes you beautiful. So, when you think about, can seed bearing plants being sovereign entities, I think it's up to the individual or the community to decide that. I always think it's important that communities have a voice. When you have one person that makes a change, but you have two then you have three, then you have five, then you have ten……that makes different changes in the community" (p. 4).

WS310182: “For the Menominee people, they said that at the time of Creation, the Creator gave us two special gifts, wild-rice and the maple trees for syrup and sugar. I believe that Creator thought of us as special to give us that at that time. This was thousands of years ago and that we would always have that which we did and still do. And we try to and we try to use it whenever we can. And it’s a favorite dish for ceremonies and naming’s and just a lot of things we do” (p. 1).

WS310182: “For the Menominee people again, its goes way back to Creation” (p. 1).

WS310182: “And for the Menominee people, it is said when the Menominee’s enter a area, the rice follows and when we leave that area, the rice passes. But the tradition behind it, was given to us, by the Creator. We still cherish that today” (p. 1).

Powwow

WS310169: “I think that’s just as important as anything. And going back to our community, every fall right around August, after our rice is harvested or right before our rice is harvested, we have a traditional pow wow. It celebrates our good times. It’s more than that. It’s about being with our families, our loved ones. Thinking about those ones that are no longer here” (p.1).

WS310169: “For our pow-wow, which is celebrating our festivities and our hard work for the year. People band together, even though it didn’t sound like much. Ten pounds of rice for 400-500 people for a feast, but they made it work. They made a soup out of it instead, because they knew the importance of having that there. If you don’t have that there, there is something missing. There is a big piece of that puzzle missing” (p. 5).

Rice as Art

WS310178: “At the end of the interview, the interviewee showed me his hat that he had beaded a wild-rice plant on it. This is the first time I have noted a wild-rice plant ever beaded on a art form” (p. 5).

Rice as Ceremony

WS310182: “For us, it’s sacred to us. It means a lot to us. We use it in ceremonies, we use it, in some use it in everyday life” (p. 1).

Rice as a Commodity

WS310180: “I don’t think this community has, not only a respectful or any relationship to Wild Rice, sadly. With the possible exception of the Willy Street Coop which is not only aware of Wild Rice, but choosing to purchase Wild Rice that is harvested on the reservations in Wisconsin by the people who grow it. Now, actually, by the people who live there” (p.1).

WS310180: “Go back to question number one. I was raised here. Nobody told me about Wild Rice, I think that the first time I was aware of, heard about or saw Wild Rice was, I couldn’t tell you how old I was but my awareness would have been like “oh, this is special”. It was probably a part of some family meal. And when I became a little bit older, I became aware that it was expensive. Ad looking back, it’s just so not surprising that first of all, number one, it was considered, I like it was considered special when it was probably closer to exotic. With all of the meaning that that carries. And, in some ways, considered special because it was expensive not because it was native” (p. 1).

Rice as Community Based

WSW310178: “Wild-rice at the community level, there’s a lot of respect here. Every year, we have an annual wild-rice festival, that’s to honor the hard work that the people do to harvest and process and make rice available for the family and community” (p.1).

Rice for Gifting

WS310169: “And that I want to make sure that when I’m done ricing after its been cultivated, that they are able to have some of that, I want them to have some of that for that winter” (p. 3).

WS310169: “And I think about my dad oldest sister who is 80. She is always the first one I want to give it to. Because I want her to be taken care of and even though my wife, who is non-native. When I first came home with a couple hundred pounds of wild-rice, and when I came back to Madison, with only two pounds, the question mark was, what happened to all the work you did? My response was, it’s given out to the people that are most deserving. It meant more to me to do it that way” (p. 3).

Diabetes/Wellness

WS310169: “In terms of food sovereignty, it’s the inherent right to have those opportunities to talk about what foods you are going to serve to you people. When we think about this age, a lot of people have issues with health, and the other issues and concerns, it’s definitely troubling when you think about all the food we sometimes put into our bodies, that we historically never had or never did. So, when I think about food sovereignty, as an example, I think it’s exercising those and bringing them back, in some cases, those foods that we traditionally eat. It’s estimated that 60% of the world’s foods are indigenous foods come from North or South America. The potato, corn, tomato, all those different foods, but a lot of our people don’t eat. A lot of it’s because it’s in the terms of cost or whatever the case may be, versus maybe it’s processed foods. I think from my perspective, it’s having those abilities to either bring back or reintroduce some of those foods to our people that we may have never thought about eating or maybe never cultivated or maybe a long time, or in some cases generations. Because I think that without that, there is something missing if we don’t do that” (p. 4).

WS310170: “So, I have sort of my own personal work traditions that have developed over time. But then, we also have become ricers and we are harvesters as well. In this planet, the more you work with it, I’ve seen people develop a relationship with it. And we have. We stopped at Rice Lake on the way down, and you just, it’s a beautiful thing to look at, feeling the rice. We love harvesting it. We love the nutrition” (p.2).

Rice as Process

WS310176: “I remember my brother is two years younger than I am. We started wild-ricing, I was about 9 years old and he was 7. And at that time, we were trained well enough, well they let us go out by ourselves. Camp out, or make wild-rice because they taught us how to do all of these things and how to do them safely. We were excellent swimmers at that time. So, my dad had a duck boat. So, we got our gear together, our push poles, our rice sticks, our canvas that goes in the bottom of the boat to collect the wild-rice. We went down and started harvesting wild-rice, never other elders down there. They always looked out for the young people. We felt safe and secure and so on. So, about noon, we pulled over to a certain place and there were these two older ladies that came over from Bad River and they were harvesting wild-rice as well. So, we had lunch together. We were just kids. These were older ladies. Margaret and her daughter Phyllis, I remember and so we had lunch with them. They said, why don’t you boys pull us we will do the knocking and we will get a lot of wild-rice. So, we agreed.

So, those were our ricing partners for that season. We made a lot of wild-rice together. Back in those days, we used to process it the old way. We would knock into the canvas in the boat, we would bring it in and lay it out. We would lay it out on tarps and let the sun dry it. Then after it was sun dried, we had these round washtubs, we put them into a round washtub and we tilt one end of the washtub up and build a fire under it. Then we would sit there on a chair with a paddle and would stir the rice so it wouldn’t pop or burn. So, once we got it scorched, we put it in a hard wood-dancing barrel. And we would get in there with knee high moccasins. Clean moccasins. Usually, the feet were made out of home tanned deerskin and the cuffs came up all the way up to your knees and they were made out of canvas. They were specially made just for dancing the wild-rice. Once you dance the wild-rice, you take it out of there and you put it in a great big birch bark tray called a winnowing basket. Then you get the wind to your back and you toss it up into the air and that separates the chaff from the grain.

Now what people don’t realize is that to process the wild-rice in that way, especially with the dancing, you have to be an Olympic physical condition to spend a day processing that rice. And then that rice gets, those hulls make you so itchy that you can’t wait until you get finished so you can go jump into the river and take a swim and wash all the hulls off. So, you come out and you’re feeling pretty good. And I remember there was one, after we got older, probably 18-20 years old, there was one year that we made over 300 pounds of processed wild-rice. We processed it the old way. Once you scorch it you can keep it for a while. So, you can process that rice safer 30-60 days all the way up to cold weather, we would be processing the wild-rice. So, we would scorch it and put it in burlap bags they called them gunny sacks at the time. And then when we wanted to process it, we get the scorch rice out and we put it back in the tub and heat it up again before we danced it. Then we would fan it. And then after you fan it, then you got to hand pick all the hulls out of it that you missed, so it takes a lot of time.

But, we had a lot of time back in those days" (p.5).

WS310168: "We don't make the basswood bags like they used to, from the wiigob, the inner basswood bark. They would make storage bags and store the rice. A lot of times, I would trade from my part, I would trade with some Sokaogon Band Chippewa. This friend of mine, Doc Polar, Emmanual Polar and his daughter, Jasmine; they rice. The Sokaogon Band of Mole Lake people kaskāhkocckanatic is fence post in Menominee. Kaskāhkocckan is a fence. Sokaogon in Chippewa is post lake. They would have a post in the lake to mark their ricing territory with these posts. That's as much as I know of that…." (p. 2).

WS310178: "What we do is we get our canoes ready and we get our, especially if we're gonna take somebody out for the first time, we make them sticks from the cedar tree" (p. 2).

WS310178: "A long ago, what they did is they would bind that rice. It was almost like right to the market. The rice would be taped up or wrapped up and it would all ripen at the same time. So, when those ladies a long ago, they would do that, they would shake that rice and it would come into the boat all at once, instead of the different stages of ripening. That was the preparation long ago" (p. 2).

WS310178: "And there is a lot of scouting that goes on prior to the ricing season that we see where the different developmental stages are and we know what rivers gonna go when and it's usually the rivers go first, then the lakes follow. So, there is definitely a natural cycle that we try to follow so this becomes kind of our ritual" (p. 2).

WS310178: "We scout these places and kind of come of a list of lakes that we think are going to ripen, so that's how it goes with this" (p. 2).

WS310178: "That responsibility is teaching our children how to harvest and how to process. We have to teach them not only have that modern method for mass production, but we also teach them that old method, because when they dance on that rice, their roots get planted into the ground and it becomes us part of that seasonal cycle" (p. 5).

WS310175: "That's important to us. Everybody likes the stuff. And we have certain harvesters that will harvest for their whole families. Then we have people who finish out the rice, they have machinery that do that, and do it very quickly rather than the traditional method" (p. 1).

WS310175: "The elder committee goes down and starts checking the rice in late July. We start about 3 weeks before it gets ready, but we want to monitor it. We've always had that; we've always had a committee of elders that would go down and check it and then say when it was to start. So, way long, long ago, that's what they did. And once they decided that all the ricers would be able to go out, but they weren't able. Of course, now we have laws that we can't be out there until that happens, until they actually open up" (p. 2).

WS310175: “If you don’t have one of those, just a plain canoe works fine, that’s what most of us use now. Traditionally, we would have a poler, a person poling the boat with the big long, about a 14 foot pole. And at the bottom of the pole, we used to put on, a wire on a crotch from

the tree to keep it from getting stuck. If you push a straight pole it gets stuck really easy. The crotch would not get stuck so easy. But today, we have duck bills they are metal thing that opens and closes when you push in the water, it opens up. When you pull it out is closes. It works really good when you are in the weeds and in the muck.

So anyway, one person stands in the back of the boat and pushes the boat. And the other person used to be that we would sit up front looking back at the poler. And then as you pole through the rice, you reach over with one stick and pull it into the boat, and then hit it twice with the other stick with a scraping motion. You just keep doing that all day. The rice then as you’re going, it will start to fill your boat up, if its real good harvest. We’ve come in with about 2 to 3 hundred pounds, way back in the day when we really had heavy duty. And normally, when we come in, we bring sacks with us. We take the rice out of the canoe and put them in the sacks. And then throw them into the motorboat. And then we bring the motorboat back up” (p. 3).

WS310175: “But anyway, after describing the process itself. Later on, we discovered that if the ricer looks at the rice it could be more selective because when you’re not looking its behind you. So, if you turn around, the canoe isn’t as steady because you are both on that end of it, which is not a great idea. But generally, our polers are pretty good, they have good balance and they know what they are doing. The ricer doesn’t jump around and upset things. After a while, we get enough rice, we push it up to the front end to counterbalance the weight so that it’s a little steadier. But I’ve found that way to be much better and more efficient because you can actually see where the rice is at, because sometimes you go through the areas where there is just no rice and there is nothing there. Or there is some other plants there and if you’re not looking at it, you can’t see where that’s happening. If you look this way, that’s the old traditional way. The reason for that is simply because the boat is more stable if there is one person on each end. Like I said, we discovered that if were careful we could have the ricer actually looking at the rice, and then counterbalance if we put our lunches up there to try to help counterbalance and pack the rice up at the front end” (p. 3).

WS310177: “Even before that, everybody was making sure their poles are in good working condition, their rice sticks aren’t cracked. This is like a month and a half to two months before a ricing season, the end of August, so like the end of June and that’s happening. It’s set aside then. And they know where everything is at, I remember people coming up the river. And, before when people went down the river, everybody went to see them off. It was like almost like a good luck gesture to everyone to have a good time while they were gathering the rice” (p. 2).

WS310177: “It’s cool out. But we know that later on in the day it’s going to hit 70/80 degrees. That’s when everybody will take a break and do lunch, a two-hour lunch until it cools down again because it’s harder to take the rice off from the stem at that time” (p. 2).

WS310177: “It’s a good time to take a little nap and relax, because you did a good mornings work. You have something to eat, drink, and sit down and talk with your partner. Now, the ricing partner, is somebody who you can work well with and it might be your actual physical partner: wife/husband, boyfriend/girlfriend, but it might be somebody else’s wife/husband. But because you went out ricing together one time, and you worked so well in gathering that rice, you made so much rice, that you knew you could move through those rice beds, you could work through those rice beds together in synchronicity. And there was no deterrence then that was going on.

Once that person found that kind of partner, brother and brother, cousin and cousins, or just good friends growing up since first grade or whatever, you knew you would stick with them for life. So, you sit down and this might be the only time you really get together, and sit down and talk during the year, is while your ricing. So, that’s something that goes on and that’s during the rice process, or gathering of rice.

And the processing of the rice itself, and that’s making sure there’s enough wood that’s there. Like today it’s mechanical processing. But I remember, we had to have a huge pile of wood. We had to have the galvanized tub in place and the blocks ready. We had to have the dancing bucket ready and we used a chair to hang on to. And all of us kids had to line up and we’d be eye balled. Who is light enough where they won’t break the rice but heavy enough to be able to dance the hulls off from the rice. And so, there was always test buckets. So, somebody get put into that bucket. And it’s always a kid that does this and they get put into that bucket, and start dancing. It’s a movement, a lifting and setting down motion. It’s almost like a running in place in slow motion. And you’re twisting your feet just slightly. And you’re dancing in that all day long!

And so, then the rice would get checked. If it was broken, you’re out. You cannot dance rice because you’re too heavy. If the hulls didn’t come off, you’re out. Because you’re not heavy enough to release the hulls on the rice. And if it came out and the hulls were falling off, just by blowing on it, then you’re in. That’s what you did this year for the rest of the year, for the rest of the season there.

So, in one way it was good but you would dance the rice the whole time. You had so many breaks during the day and that was it. From there, then it was the winnowing and then taking and separating the ones that didn’t come off. And then sitting at the table with the elder women and they’re sitting there and they’re talking. And you don’t even want to know what they were talking about. But they were telling you how women sit around the kitchen table. That’s how it was and so as a child, you sat there quietly and absorbed all of that and did your work.

And it was all your cousins were there, brothers and sisters, everybody had a job to do. If it was spreading the rice out on the tarp, to gathering the rice up from the tarp, it was different stuff. And so that's it. And I'm sure like back in my mom's day, they camped out right at the sloughs, and harvested and processed some of it right there. And then they came back up and finished rice and distributed it to those who needed it" (p. 2).

WS310169: "You know from me, my tradition is, with going out ricing, I'll take a step further back. I'm just contemporary. I will think about when I was a little boy. My tradition first was waking up my dad early. I would say, dad, we got to get going. He would tell me, it's too early, its only 2:30 in the morning, its' dark out, we don't get up for another couple more hours. I would wake him up half an hour later. Dad we got to get going. No we can't get going it's too early. From my perspective, I was so excited, I wanted to get out there. You know I wasn't able to push the canoe or knock rice, I was just in the boat. The cool thing, was because I was with my aunties and uncles and my cousins, my grandmothers and my grandfathers. From my perspective, that was the most exciting part. That was the traditional part. I'll take it from that lens" (p. 2).

WS310169: "I wake up super early in the morning, I'm always excited, thinking about the rice for the day as well as how hot it's going to be out there as well as traffic. Taking precautions in terms of clothing and different things like that making sure I'm prepared" (p. 2).

WS310169: "When I go out ricing it's just determining who is going to be the pusher and who is going to knock rice. Sometimes, it's a battle. The ones I go about with, it's my father, my brother and a couple of my uncles, and more often not, it turns into sometimes, an interesting exchange of conversations about, you're going too fast, you're going too slow, knock faster, go does this, do that, but in the end I know it's because of love. We always, I never take it to heart. I always know it comes from a good place, even though it may seem like it's not sometimes" (p. 3).

WS310175: "But anyway, after describing the process itself. Later on, we discovered that if the ricer looks at the rice it could be more selective because when you're not looking its behind you. So, if you turn around, the canoe isn't as steady because you are both on that end of it, which is not a great idea. But generally, our polers are pretty good, they have good balance and they know what they are doing. The ricer doesn't jump around and upset things. After a while, we get enough rice, we push it up to the front end to counterbalance the weight so that it's a little steadier. But I've found that way to be much better and more efficient because you can actually see where the rice is at, because sometimes you go through the areas where there is just no rice and there is nothing there. Or there is some other plants there and if you're not looking at it, you can't see where that's happening. If you look this way, that's the old traditional way. The reason for that is simply because the boat is more stable if there is one person on each end. Like I said, we discovered that if were careful we could have the ricer actually looking at the rice, and then counterbalance if we put our lunches up there to try to help counterbalance and pack the rice up at the front end. That's the way most people rice now. There's still people, a few that tradish. You know, they still use the traditional way, but not very many" (p.3).

Rice as a Relative

WS310176: “My question is how can you get a patent on something that the Creator has given?” (p.7).

WS310168: “ An old man once said, why would I strive to be white, when the Creator made me an Indian? Why do you want me to change who I am? That’s how I feel about the wild-rice. It’s very important to who we are” (p. 2).

WS310178: “The rice will grow when it wants to grow and that’s the mystery behind it. Just like the Great Spirit is a great mystery and so is that wild-rice” (p. 4).

WS310178: “And that even being on that rice bed and knocking that rice, you can actually feel that connection with the water and the plants. And through their roots into the ground, you can actually become a part of that. That rice bed, with the rice birds and the turtles and all that you know” (p. 5).

WS310175: “Just that it’s delicious in soup and salad. As itself, with a little gravy added. There is many ways to eat it. And again, it’s just so important to us that I don’t know if we could live without it. Thank you, migwetch and thank you for your time” (p. 5).

WS310177: “The relationship to my community to wild rice? There is a tangible relationship, that is what it is. In the year that we didn’t have wild-rice, when the rice beds produced so little rice that the tribal membership, this was in 2007, they came to the conclusion that it would be best not to harvest rice. There was a emotional grief for the loss of the wild-rice that year” (p. 1).

WS310177: “So, that relationship there, that emotion there, tells me that there is an intangible relationship. That you can’t see it so much but, or hear it that much. But our people here have a strong-feelings for the wild-rice. So, the other relationship is the memories. The memories of our migration here” (p. 1).

WS310177: “You know, there is going to be a total cultural shift, because that’s not part of it . It’ll be like a memory. Another memory. And it’s gonna be traumatizing to people who could remember the taste of that rice, because it’s so unique here, I don’t want to think about it. (tears)” (p. 5).

WS310177: “I just hope that future generations will be able to taste the wild-rice that I’ve tasted in my lifetime, because I grew up right next to that river that makes that rice. That was my life. I could smell it growing during the flowering stage of the rice, during the floating leaf stage of the rice. You can smell the wild-rice growing. And it’s so strange that I’ve been to other places with rice beds, and it doesn’t the same smell. It’s a very unique smell on the Kakagon River and there’s something about it that calms you. So, it’s like you get up in the morning and you smell that smell of the rice growing and it’s so, it’s like life it starting, you know? And you get happy about it because you know it’s to come. And I just wish that where I live, which is allotted land in my family, that my great-great-great-great grandchildren will be living there someday and they’ll smell that same smell. Because my great-great-great-great grandfather, right there (pointing to poster in background), lived there. He smelled the same thing" (p. 5).

WS310170: "This incredibly nurturing plant that has fed generations" (p. 1).

WS310170: "In this planet, the more you work with it, I've seen people develop a relationship with it. And we have. We stopped at Rice Lake on the way down, and you just, it's a beautiful thing to look at, feeling the rice. We love harvesting it" (p. 2).

WS310170: "That is, just not that many things you get to do that feel that you have that kind of significance. So, on a personal level, we do harvest surveys and we do abundance surveys. We do all kinds of management activities. I guess the importance personally, to some level about those things, is just this relationship that you have. Rice is this incredibly giving plant. So, to get the chance to give back to it a little bit, sometimes, it's a…it's a gift" (p. 2).

WS310170: "I never thought of that one. You're pushing my brains cells here. Boy, I hate giving off the cuff answers to questions that are interesting. But certainly, I think, from the tribe's perspective, you know, Manoomin is a being. You know, and it needs to be respected and valued that way. And I think there would be support for that idea" (p. 3).

WS310170: "It gets into your blood. People who spend any amount of time with it, I think, really realize that this is a gift from the Creator. It's enhanced our lives in a lot of ways" (p. 7).

WS310180: "But the wild rice herself might tell us. And can even hear and understand that we haven't really heard or understood what there was in the past. I don't know how to finish the sentence because I forgot the question" (p. 3).

WS310182: "I believe the Creator in giving us the wild-rice it always showed us how to harvest. And in doing so, we ask those traditions on to our generations to come" (p. 1).

Rice as Sacred

WS310178: "There was nothing to eat, you know? So one day, he's so exhausted and he was crying and he was sad. And, he hears this little voice from the lake. The voice said, why are you crying, Uncle. So, the man looked up and there was this Zhiishiib, this duck standing there. Well, there is nothing to eat here. And that moment, our uncle had thought about killing that Zhiishiib, that duck. So, what he did was, he invited that Zhiishiib over. Just as Zhiishiib was close, he was getting ready to take him out, and then he basically said, well, before you try to take my life, that Zhiishiib told him, he says, I can help you with some food.

So, he says, what do you see out there in that lake? And so, Zhiishiib looks out on that lake and all he saw was a few plants. And then he was, oh, I see some wrong plants out there. He goes, well on those plants out there, he said there is something that can, once you cook it, he says it'll cook almost nothing into a lot of something. If you get enough of that plant, so he told that Uncle, he says go put that kettle of water on over there, we'll see, I'll show you. So, that bird, that Zhiishiib, swims out to that Manoomin out there. And he eats a bunch of it. And he comes back and Uncle had a kettle going. And he's like, well here's my kettle what are you going to do?

So that Zhiishiib reached into his mouth and threw it down in his stomach and he pulled that Manoomin out. And he put that inside that kettle. And Uncle was amazed because when he saw those little pieces of brown Manoomin and

over the next 10-15 minutes, it would puff up. And so it was almost nothing and it turned into something. And that was the first time Anishinaabe had tasted that Manoomin. There is actually two versions of that story. That's the Lac du Flambeau version. There's a really funny version from Lac Courte Oreilles, it's very similar, but that's the first time our people had the Manoomin. We learned it from the ducks. Zhiishiib" (p.1).

WS310178: "We smoke a little tobacco and we make a few offerings into the lake and from that point on then we begin our harvest. And there is a lot of scouting that goes on prior to the ricing season that we see where the different developmental stages are and we know what rivers gonna go when and it's usually the rivers go first, then the lakes follow. So, there is definitely a natural cycle that we try to follow so this becomes kind of our ritual" (p.2).

WS310175: "Well again, the Ojibwe people, long ago, when they were living in the East near the Atlantic Ocean out that way, before they came west. They came west because someone had a dream that there was a white scourge coming from the East. So later, they weren't sure what that meant. In that dream, they were also told to head west until you find a place where the food grows on the water. And so, they started to move and it took them probably a couple hundred years to get this far. Not that it would take that long. They stayed in certain places. There were actually 7 stopping places all together. And some claim there is an 8th that is farther west. And one thing that I did find out when I was up in Canada, at an Ojibwe Nation conference, many years, they invited us up there. They were talking about Ojibwe language teachings that our people are beyond the Rocky Mountains on the Canadian side. On the U.S. side they are in Montana, there are a couple bands in Montana right on the edge of the Rockies. On the Canadian side they are beyond literally a stone's throw from the Pacific up in British Columbia. We are spread far and wide. I think that's one of the most territories of any tribe in North America. We are pretty much centralized here. Right where the wild-rice is at and right where the best wild-rice in the country is at and there is a reason for that why ours is so good.

A lot of the inland lakes, the water is kind of stagnant. Some places is flowing by a river or something like that, but a lot of inland lakes, it doesn't move much. The water. And here our water comes in and washes our rice several time a day. We put what they call a sage, we call it a tide. The water, in the morning you like to see the water coming in, later on, you'll see it going out, then later on you see it coming in. We used to get into some boggy areas where there is a lot of bog way down. Sometimes, you get in there, you can barely move your canoe through that. Are you interviewing with Joe Rose? He's here.

I told him to come here.

Anyway, that movement in the water washes the rice and so our rice is the tastiest of any rice anywhere. But every tribe claims that their rice is the best. But ours really is, it really is! And it's the difference with the clean water constantly changing. It's the water that comes in and goes out several times a day. It really helps, that water, keeps it from getting the muddy taste that a lot of rice has a muddy taste to it on a lot of lakes. So, what else?" (p.2).

WS310169: "I think it's in many respects; it's hand-in-hand. I don't think there's any separation between the two. I think that traditionally some of our stories, we talk about, traditionally talk about going to where the food grows out west and some of those different stories that talk about why it's important to carry on those traditions. From my perspective, it's been historically important, presently important and in the future it's going to be important. As we seen different things or issues come about, from mining concerns about how they would have an impact that would have on wild ricing in our community. Definitely brought our community together in terms around a common issue that would impact our community with specifically the future of the wild-rice. As time has gone on there have always been other concerns that's popped up before that in terms of protecting that rice. The one thing that always making sure those traditions carry on with our youth. Our elders have that opportunity to share that knowledge. From my perspective, you are starting to see a lot of our young people taking advantage of those opportunities. I'm glad to see that because I think it shapes about who they are and where they come from. I think that's just as important as anything. And going back to our community, every fall right around August, after our rice is harvested or right before our rice is harvested, we have a traditional pow wow. It celebrates our good times. It's more than that. It's about being with our families, our loved ones. Thinking about those ones that are no longer here" (p.1).

School/Youth/Harvest

WS310177: "I don't know about restorations? But the natural environment is very attractive to people. I've provided tours of our sloughs down here. So, in one summer, within a period of two weeks, I generated about $8,000. So, that's $4,000 a week in giving boat tours to different groups. And they were, you know, groups that were willing to pay, which allowed us then to give boat tours to our own youth and elders, so that they could have an opportunity to go out there to see the sloughs too because some of our own youth have never seen the sloughs. And some of our elders hadn't been out there in a long time, but I know that it's very attracted to people in this area" (p. 5).

WS310170: "We took our children out ricing. They have all experienced that. And so, joy that comes through work sometimes. I've always said that that's part of my job is when we are successful in doing, at reseeding or restoration activity that is successful" (p. 2).

WS310170: "And to educate. I mean, I think about our neighbors see us. We have our tarps in the front yard, because we, we had been out harvesting and we are doing the air drying.

You know a lot of people just kind of look for that too I think (wild-rice). We educate people through programs and dealing with kid groups to the Boys and Girls Clubs. But then also saying through our own family unit too and our neighborhood" (p. 2).

WS310170: "But the other thing that happened is that there were ricing camps there again. The tribal youth were picking on a lake where they weren't able to pick 50 years ago. They are making ricing sticks and they are making push poles. People are going out and harvesting and recapturing those traditional lifeways. I don't know how you weight those two things, but certainly that's tremendously valuable benefit from that. It's great to feel like a win-win I guess. You don't have to play people's interest against wildlife. It's like you benefit both simultaneously" (p.5).

WS310170: "And you see that with a lot of people. When you recruit new people into ricing, it's always interesting. Some people it's one and done. They get the heebie-jeebies factor of rice worms and spiders. But other people develop this life-long relationship and it's just an incredibly important to them and that speaks to the plant itself I think" (p. 7).

WS310169: "From my perspective, you are starting to see a lot of our young people taking advantage of those opportunities. I'm glad to see that because I think it shapes about who they are and where they come from" (p. 1).

WS310182: "But, we still harvest here on the reservation, we try to teach our children how to process the rice in the traditional way. Using the language as part of it. But it's sacred to us" (p. 1).

Sovereignty

WS310176: "The native species are the Lake Trout and the Whitefish. They are on a serious decline right now. So, these are some of the things that we notice. My son is a fisheries biologist for Great Lakes Indian Fish and Wildlife Commission and he is a young fisheries section leader for Great Lakes Indian Fish and Wildlife Commission. Right now he is at a meeting in the Twin Cities and they are meeting with the Minnesota DNR and they are discussing the serious decline of the wildlife population in Mille Lacs Minnesota now. It's a pretty serious political issue over there. So, they have been meeting there, they will be meeting there today and possibly tomorrow. And so, they are working with Minnesota DNR and also GLIFWC, is really concerned about this decline in the wildlife population" (p.6).

WS310176: "I'm one of the voting reps, we have two voting reps on the Voight Task Force. I'm Bad River's voting rep there. These are some of the things we have to deal with on a month-to-month basis. We meet once a month, with other meetings in between like this technical working group that is meeting over there right now. I couldn't go, I've got too much going on here. I couldn't make that" (p.7).

WS310176: "And so, food sovereignty is a very important aspect to hunt, to fish, to gather and to grow your own food. And so, Great Lakes Indian Fish and Wildlife Commission oversees hunting, fishing and gathering in the ceded territories that is off-rez fishing, hunting and gathering. Tribal DNR takes care of on-rez. We also have gardening projects that are going now. I was gifted last week with a species of squash that is supposed to be over 800 years old. So, I'm going to save some of those seeds and planting those next summer. It's a big yellow squash. This one is probably about 3 ½ feet long. So, we are into gardening also" (p.7).

WS310176: "We don't have any strategic mineral reserves. The way that I see it, it's a threat to our national security, it's a threat to our sovereignty and I'll even use the word treason. That's how strongly I feel about it" (p.9).

WS310176: "The Tribe, the Bad River Tribe has what we call an integrated resource management program: IRMP. And it has a very strong focus on protecting the environment. And especially our shorelines like Lake Superior or whatever. And as far as the Voight taskforce goes, the committee of the Great Lakes Indian Fish and Wildlife Commission, all of these tribes are very concerned about the environment. About the fish and the game, the air, the water. In fact, Bad River Tribe has been approved for/by the environmental protection agency to set their own water quality standards. We're working on Air Quality standards now. We're hoping to have that possibly before the end of the year. We'll see. So, that's what we're working on right now.

I'll say the Menominee have their own air quality, don't they? I think it's the Potawatomi's. That was during the Crandon mining issue. Actually, the Great Lakes Indian and Wildlife Commission has much better data on their resources than what the Wisconsin DNR has. For example, our spring fishery is 100% quality by our field works and our Biologists etc. That's now true with Wisconsin DNR. They do a spot check during the summers on these hook and line fisherman. We have much better data than what they do" (p.12).

WS310176: "How attractive? Like what? (As far as areas that deal with the eco-system with respect to Ojibwe cultural practices/traditions/history. Restoring sites back to well Red Cliff Tribe over here, let me think, they've got a, they have a, I think it's a recognized tribal park or forestry area. Do you know anything about that? Look it up. I know they are into that. With our Integrated Resource Management plan there is a very strong focus on the environment" (p. 12).

WS310168: "The name given to us ____________The wild-rice people. The conclusion there is obvious why that happened" (p. 1).

WS310168: "Boy, I'm not a lawyer. That pretty much sounds like a legal question. I think they probably could. It's a traditional thing. It's a natural thing. It's a native thing. It was here long before any legal papers were drawn up. Any courts were built. Any fences were erected. Any magic lines that were drawn in the sand saying this is mine, that's yours. Yeah, they shouldn't be able to keep native people from travelling about the waterways and harvesting the wild-rice where it's grown" (p. 3).

WS310178: "Well, food sovereignty, the way we do it here, you know, we have, you go to the store and you're going to see the modified version of Manoomin. You're going to see Uncle Ben's. You're going to see wa-wash-gee-manoomin, that white rice. You're going to see all these different things. We can have those, but they don't belong to us. What belongs to us is what we have to work hard for.

What we earn and what we take from that lake, that's rightfully ours, that belongs to our ancestors as well. Just even being out there and being able to harvest this stuff on and off the reservation, that right there is our sovereignty.

We get to enjoy that all winter long and when you're eating that, you think about the day you knocked it and you're giving it to your babies and you're giving it to your neighbors down the road. Even when their sicknesses, illnesses you know, that is the way we use that rice and that is our sovereignty. And that, like I said, in a different interview in the past, there's things under that lake that we can get unless we eat that Manoomin. There is minerals and there's medicine under that soil, underneath that water. By eating that Manoomin, we get that and so, there is so much about it that today's mind is trying to comprehend that our ancestors knew it and some people still hang onto that knowledge and that belongs to us and it's ours" (p. 2-3).

WS310178: "I guess the State has taken it since then upon itself to be the bearers of the traditional, I guess you could call it, knowledge of the rice. They figured their science, with the very little they have with their scientific methods. They figured, they could understand and know the wild-rice, but the past I think 15 years now, they actually turned it back over to the tribes because they actually don't understand it. Our ancestors do understand it, so now that responsibility has fallen back into the tribe's hands. And so, our wild-rice now is managed through our Great Lakes Fish and Wildlife Commission who does work for all the consolidated tribes in northern Wisconsin. And so, the responsibility of the rice is now back to the Ojibwe's, but there's still a political agenda there, that wild-rice is on that's political agenda. The negotiations between GLIFWC and the State, or the Feds, but the people who should be in charge of it are the people out there that are knocking it, that live in that rice bed. Shouldn't be people who have never been on that rice bed making decisions. Even in our own Tribe that rice used as a political tool. So, once we get it from there, we are making steps in getting it back under the care of the people who actually use it and live with it every day" (p. 4).

WS310175: "We fish. We just have fun and go sailing. We go motoring around, fishing, hunting. So, the people use water a lot. And so, they are asking that the water spirit keep people safe as their doing those recreational activities. And again, wild-rice is a big part of all of that" (p. 1).

WS310175: "Our traditional way of ricing is in a canoe or what we used to have rice boats that were just for ricing. They were made out of wood back in those days, and later on there were some that were made out of aluminum that came out of Minnesota" (p. 3).

WS310175: "It still is, most people have very small plots now that they use in their back yard or front yard where they grow some of their own food. And then again, those things that we harvest, those foods that we harvest: the animals, the fish, all those things, the wild-rice, apples, there were a lot of apple trees around too. And there still are. Picking berries, blueberries, blackberries, strawberries in the spring and early summer. Those things were always important. They are all healthy. They are really good healthy foods. Some of the junk we eat today is yucky compared to the old traditional diet of almost natural foods. So, we would like to do as much as possible to get hold of those natural foods and use those for our families. It's pretty important thing to raise your own food and to have" (p. 4).

WS310175: "Food sovereignty, again we still get a lot of other stuff at the supermarkets. Food sovereignty to me is like being able to control all or most of the foods that you're going to eat. We use the supermarkets a lot. As a matter a fact I'm heading there shortly. But we also, whenever possible, we try to eat those traditional foods, whenever we can. So, you know food sovereignty in terms of a total diet isn't really happening. I don't know that does anywhere except for some farmers that are able to raise everything that they need on their land. We are getting a bunch more of them around here in this area. People moving back to farming because there was quite a while there where people were leaving the farms and going to cities to work or what have you. And now this whole area around the bay here, there are people that are getting together, they grow things and then they trade with each other. We have a place in Ashland here that goes on Saturdays, where the produce comes from all over the area. People can trade or buy right there. They have really good fresh stuff, that runs right into the fall just about winter. So, I don't know, the last couple of Saturdays or whatever crops are coming now.

So, I don't know if we will ever reach total sovereignty, but maybe. That would really take a reservation wide effort to do that, and a lot more people doing their growing than what is happening now" (p. 4).

WS310175: "So, things like that going on. Wild-rice is a seed. As is corn and you know, just a whole lot of plants that are seeds. So, once you genetically alter those, you can lose that entire food source, so that's something we also kind of want to watch for ok?" (p. 4).

WS310175: "Very. Again, our natural resource department has been overseeing this for quite a long time. Previous to that, before the natural resource department got started, the state DNR used to come in and regulate. After, I think 1953, after a while anyway, they basically gave up that because the Tribe had its own jurisdictional thing about the state being on our land. And so, ultimately, we kind of booted them out and created our own natural resource people. We got some pretty high science going on there. We've got a number of scientists that work there, and technicians that are very careful about monitoring the natural resources on the reservation and our water resources and food resources and all of that, it's good to have our own people. Or somebody that we hire to work on our stuff' (p. 5).

WS310177: "And how well educated the people were at that time that they could understand even through inference that it wasn't even necessary to speak a word. So, that origin story of that rice might be with those people too. They might have lost it too. But the Menominee should have that too and should be able to provide that. But we know that this was our indicator. Our indicator species that said you're home. This is where to stop. And we're the descendants of those who stopped here, who decided that we're going to stay here. And most of the people I know that live here, don't want to leave. I mean this is the kind of place that people want to come to on the weekend. They want to relax and enjoy it. A lot of people, we don't travel a whole lot, you know? We do travel. Like I've been to probably 48 out of the 50 states. I know people all over the United States and Europe. But I don't want to go and live anywhere else. It's so beautiful here" (p. 1).

WS310177: "Food sovereignty. Well I think there are a lot of variables that are there. One, and this is so, what's the word, new to the tribe that in a way it's not new, but it is new. It's like a reminder to everybody. So, at one time, everybody knew that you take just what you need and no more than that. And never take all of one thing in a place. That was so strict, so adhered to at one time that even in war they wouldn't kill every single person in the war" (p. 3).

WS310177: "And so that message went out. But that one person was spared because of the reminder not to take everything. So everybody knew that. Somewhere along in our civilization, in civilizing us Anishinaabe, we forgot about that, you know? So now, we have to now put rules down in writing and remind people that we shouldn't take more than you need. With food sovereignty, we have to put down in writing, different things. Doing an agricultural code for the tribe is one thing, and saying that this in place here, getting some kind of agreement with the State of Wisconsin, that we don't get a cross-pollination of GMO seeds onto our plants. And that has to move back a particular distance from the boundaries of our reservation. And that's to preserve that seed, the natural seed" (p. 3).

WS310177: "Absolutely. Absolutely, and the reason being is because we have the story of that seed. You know, where it came from and how it came to life and that's the difference. It isn't just seed, but it's water. I mean when you think about water, you think about, water needs pretty much the same stuff we need as human beings. It needs oxygen, right? And just like us. We need oxygen. So, tell me, that is a living entity there, that is a living, breathing entity. No different than me standing right here. So, why should I treat that any differently? The same thing for crops. For different plants, living, breathing.

So, when you think about the plants that they're living and breathing entities, you know that live and they live through the cycle of their life. Just like we live through the cycle of our lives, you know? The difference is they don't commit suicide, you know? They don't try and shorten their own lives, you know. They remember to work with all the other things. Work with the bees, work with the birds, work with the other animals and the other insects. They remember that. So, yeah, who is the more civilized?" (p. 3).

WS310170: "You know that's an interesting question and I don't know that I've given it a lot of thought myself. I'm sure this practical manager in some ways but the food sovereignty issue is, I think, it is very important" (p. 2).

WS310170: "As much as there might be like cedar or other things that value that too. There are plants that are probably given that same….That is something I haven't thought a lot about" (p. 3).

WS310170: “It’s so interesting that you’re Menominee because I’m just going to babble here a little bit. So when the Ojibwe Tribes off reservation rights were reaffirmed, it’s part of the Voight stipulation is to take wild rice management committee between the State and the Tribes was formed. For 20 plus years, it was a very positive cooperative working relationship. Under the current administration in the DNR a lot of that is deteriorated. Now, it’s not because of staff, who really are people that are motivated to do the right thing, but the upper level of administration, I think there actually was the next comments, I’m not sure, but you know there was I think resistance to the tribes extensive rule in rice management. The state wanted to make clear that they were the ultimate managers.

Instead of working cooperatively for a resource that became more concerned about who had more authority, the State of Wisconsin created its on wild-rice advisory committee. Not a bad thing, they are putting a lot of good people on that committee, but the tribal representation is lacking.

GLIFWC has a position that I sort of again, am representing our Tribes, but I represent our tribes’ off reservation interests. I don’t represent Bad River’s on- reservation or the Menominee, or the Potawatomi and we are the only tribe that has a seat on that committee at all. And here you have the Menominee, the Wild-Rice People, and they’re not on the Wisconsin DNR”s wild-rice advisory committee” (p. 6).

WS310170: “I think he was alluding to, we could go on and on. It’s been a big part of our life right now since I came back to the commission and got the job as a Manoomin biologist. But even before that, It’s been a big part of our life. And, knock on wood, we could ever retire, I think it will stay as a part of our life. We will still be ricers. People call us every fall and that’s when the only time we talk to them about where to go ricing. I still think it will be a part of our lives, when we aren’t working for the commission or for the Tribes” (p. 7).

WS310170: “Thank you both and I appreciate it.

Good luck on your efforts and it’s always great to see, I think again, all of this, kind of thing your doing would have been pretty rare 30 years ago. So all of this is a good thing.

And when you started to say there has been a lot of work done on it, I don’t think that means that rice should be done. What your doing is so great. We were just saying on the drive down here, is it our role to get the Potawatomi and the Menominee involved in some of these things. We work for the tribe. We work for the Ojibwe and they are off reservation. It’s kind of tricky, the role we have in it, but it doesn’t mean that we think that there aren’t other interests out there and other tribes should be more involved. So, go for it” (p. 7).

WS310169: “I think sovereignty is the core of any tribal nation or and native American nation., or native nations, or native American nations, or first nations or whatever you want to call it. I think sovereignty is an inherent right to self-govern” (p. 3).

WS310180: “Of the being, of the plant of the place, of that being exists and then just the whole idea of sovereignty. That there can, first of all, sovereignty is way more than nation.

That's just geography as imposed or created by human beings and that is of sovereignty to me. So, this is me. I can only speak for myself because it's certainly is not what other people taught me, this is what I've gathered. Sovereignty, would be, I guess, the first time I heard of sovereignty was during the treaty rights

days. But already, I was like Yes! Yes! Somebody is also saying this. Or believing this or understanding this that the idea of sovereignty really did get into nationalism. This is kind of the level of which its stayed nationalism, political level. That level of existence. But, there's sovereignty of a being, and Wild Rice is a plant, is a being. A sovereignty of the being of being. As a human being, or the sovereignty, so by sovereignty I mean of value. I mean precious. Just because it exists. He/she/it, just because the being exists, that is that being sovereignty. And so, it's a collection of beings whether it's a Tribe, or a geographical human created geographical or racial or some other, ok that's perhaps sovereign or collectivity of beings. In a sense, that it's precious to those beings.

If the United States of American is sovereign, and precious, Wisconsin is sovereign or precious or if Lynn Ann Johnson has a personal sovereignty or is precious, then the understanding that also goes to plant people is essential. So, it's the beingness that makes something sovereign. It's the lack of awareness that allows us to trample on one another's on other beings' sovereignty. Without that awareness, and respect of that ain't going to happen. That's the way I see it" (p. 2).

WS310180: "Well, I guess you would have to say that I think that kinda is just what I said. Yes! In fact, I would go as far as to say, not only can they, but they are already are! So, who are you to say that they aren't! Ok! That's what I think!" (p. 2).

WS310182: "Well, I think food sovereignty is important. We would like to try to use some more of the traditional gardens that we have. We have found out here on the reservation that we have various ways to garden beds. And they're all over the reservation. For the Menominee's, the historians always said we were hunters and gatherers, which is true. But we always used implanted gardens also. And we have found the evidence of those gardens on the reservation. And right across the street here, the parking lot, we have tried to replicate the raised garden beds, which we've been doing now for the past two years" (p. 1).

WS310182: "Yea I think seed bearing plants are seeds or whatever, can be described that way. Because they provide life of the plants and if it wasn't for the seeds, you wouldn't have new plants. And for us, some of the crops that we use, we pass or we keep some of the seeds for the next year. And we use those. So that kind of keeps that cycle going of that type of plant" (p. 1).

WS310178: "Well, food sovereignty, the way we do it here, you know, we have, you go to the store and you're going to see the modified version of Manoomin. You're going to see Uncle Ben's. You're going to see wa-wash-gee-manoomin, that white rice. You're going to see all these different things. We can have those, but they don't belong to us. What belongs to us is what we have to work hard for.

What we earn and what we take from that lake, that's rightfully ours, that belongs to our ancestors as well. Just even being out there and being able to harvest this stuff on and off the reservation, that right there is our sovereignty.

We get to enjoy that all winter long and when you're eating that, you think about the day you knocked it and you're giving it to your babies and you're giving it to your neighbors down the road. Even when their sicknesses, illnesses you know, that is the way we use that rice and that is our sovereignty. And that, like I said, in a different interview in the past, there's things under that lake that we can get unless we eat that Manoomin. There is minerals and there's medicine under that soil, underneath that water. By eating that Manoomin, we get that and so, there is so much about it that today's mind is

trying to comprehend that our ancestors knew it and some people still hang onto that knowledge and that belongs to us and it's ours" (p.2-3).

WS310178: "We look at the plural form, that's when we find out if it's animate or as in our case, it has a spirit. The answer to that question is yes.

We can view that through our language, that plant is alive. It has a spirit just like you or me. That plant has every right just like you or me. It's a living, breathing, growing thing that offers itself to the Anishinaabe people. It does have rights, it does have rights, just like you and I have" (p.3).

WS310175: "Food sovereignty, again we still get a lot of other stuff at the supermarkets. Food sovereignty to me is like being able to control all or most of the foods that you're going to eat. We use the supermarkets a lot. As a matter a fact I'm heading there shortly. But we also, whenever possible, we try to eat those traditional foods, whenever we can. So, you know food sovereignty in terms of a total diet isn't really happening. I don't know that does anywhere except for some farmers that are able to raise everything that they need on their land. We are getting a bunch more of them around here in this area. People moving back to farming because there was quite awhile there where people were leaving the farms and going to cities to work or what have you. And now this whole area around the bay here, there are people that are getting together, they grow things and then they trade with each other. We have a place in Ashland here that goes on Saturdays, where the produce comes from all over the area. People can trade or buy right there. They have really good fresh stuff, that runs right into the fall just about winter. So, I don't know, the last couple of Saturdays or whatever crops are coming now" (p.4).

WS310175: "Airboats are not allowed in the natural wild-rice stands. They did it with the airboat before, but that was before the rice was up, or after the rice was down actually. They actually had to cut it a couple of times" (p. 5).

WS310177: "Food sovereignty. Well I think there are a lot of variables that are there. One, and this is so, what's the word, new to the tribe that in a way it's not new, but it is new. It's like a reminder to everybody. So, at one time, everybody knew that you take just what you need and no more than that. And never take all of one thing in a place. That was so strict, so adhered to at one time that even in war they wouldn't kill every single person in the war. We have stories of it of us battling against the Sioux. And that there would be one Sioux man left, and he would be treated like royalty. And he would be cleaned and bathed and fed. We would give him a brand new canoe or two and fill them to the brim with gifts and send him on his way with a message. Tell your people not to come back. And that was it.

And so that message went out. But that one person was spared because of the reminder not to take everything. So everybody knew that. Somewhere along in our civilization, in civilizing us Anishinaabe, we forgot about that, you know? So now, we have to now put rules down in writing and remind people that we shouldn't take more than you need. With food sovereignty, we have to put down in writing, different things. Doing an agricultural code for the tribe is one thing, and saying that this in place here, getting some kind of agreement with the State of Wisconsin, that we don't get a cross-pollination of GMO seeds onto our plants. And that has to move back a particular distance from the boundaries of our reservation. And that's to preserve that seed, the natural seed" (p.3).

WS310170: "You respect this gift by utilizing it. And people who do utilize it, they want to make sure it's preserved for future generations. But our work isn't central to that question. You might want to talk to folks in that department" (p.3).

WS310170: "It's so interesting that you're Menominee because I'm just going to babble here a little bit. So when the Ojibwe Tribes off reservation rights were reaffirmed, it's part of the Voight stipulation is to take wild rice management committee between the State and the Tribes was formed. For 20 plus years, it was a very positive cooperative working relationship. Under the current administration in the DNR a lot of that is deteriorated. Now, it's not because of staff, who really are people that are motivated to do the right thing, but the upper level of administration, I think there actually was the next comments, I'm not sure, but you know there was I think resistance to the tribes extensive rule in rice management. The state wanted to make clear that they were the ultimate managers" (p.6).

WS310169: "I think sovereignty is the core of any tribal nation or and native American nation., or native nations, or native American nations, or first nations or whatever you want to call it. I think sovereignty is an inherent right to self-govern" (p.3).

WS310169: "In terms of food sovereignty, it's the inherent right to have those opportunities to talk about what foods you are going to serve to you people. When we think about this age, a lot of people have issues with health, and the other issues and concerns, it's definitely troubling when you think about all the food we sometimes put into our bodies, that we historically never had or never did. So when I think about food sovereignty, as an example, I think it's exercising those and bringing them back, in some cases, those foods that we traditionally eat. It's estimated that 60% of the world's foods are indigenous foods come from North or South America. The potato, corn, tomato, all those different foods, but a lot of our people don't eat. Alot of it's because it's in the terms of cost or whatever the case may be, versus maybe it's processed foods. I think from my perspective, it's having those abilities to either bring back or reintroduce some of those foods to our people that we may have never thought about eating or maybe never cultivated or maybe a long time, or in some cases generations. Because I think that without that, there is something missing if we don't do that" (p.4).

Superfood

WS310168: "Yes. The forms of wild-rice are eaten in today are very limited. People think that you have to do like a Chinese person and cook it, put it on your plate and eat it. Didn't realize that back in the old days, it was stored and it was pounded, and flour was made out of it. We didn't have wheat fields. It was used as a flour. Today, we are going to be eating some cold wild-rice salad that moi invented. And wild-rice can be enjoyed in a lot of ways. You can mix it with all kinds of things to eat which was traditionally done. One of my favorite ways to have it, just boil, put on the plate alongside some tasty venison, or bear or whatever I'm eating along with some squash. And pour maple syrup over the whole thing. (Menominee word for Maple syrup) Maple syrup sweetens it up. It changes wild-rice from a bland thing into a very delicious meal into itself" (p. 4).

WS310175: "It's just really good food. It's tastes good. It's one of the healthiest foods that there is, it's not true rice. It's actually wild grass. A wild grass for seed. It's a very delicious commodity. I think it helps us to stay healthy in a couple of different ways. One is harvesting: you go out to harvest it is hard work. Then if you actually finish it in the traditional way, it's really hard work! So that keeps you in shape when you do things like that. It goes great with venison or other more traditional foods. We are hunters and harvesters and fisherman. So that wild-rice always goes along with those other things that the people harvest to eat. So, it's really something important to us. I don't know if we could survive without it" (p. 1).

WS310170: "We love the nutrition. We eat it! We eat a lot of it. In knowing that it's literally one of the best things you can put in your body. It's a wonderful thing" (p.2).

WS310170: "This is interesting. In a lot of ways, I think, the future of rice depends on it really being utilized as a food" (p. 3).

WS310170: "You respect this gift by utilizing it. And people who do utilize it, they want to make sure its preserved for future generations. But our work isn't central to that question. You might want to talk to folks in that department" (p. 3).

WS310169: "Nothing specifically, one thing I would like to note, from my perspective, rice is like water. It is a lot of our things. It is the blood of our family. I can't speak for the community. I'll speak from my family. I always think about the first time I put my hand in a bag of rice and ate it raw. Not cooked. I remember eating it cooked. I remember eating it popcorn style or popping it in a microwave. I remember eating it in a casserole and other things that people make with it now" (p. 7).

WS310180: “I think the wild rice is trying to speak to us. I’ve felt that for a very long time actually, quite a few years or at least since the 1980’s. At least since the 1980’s. Maybe a little before. So, I hope this just, I hope this dissertation is the beginning of the conversation between cultures, between species, with Mother Earth herself. Because, hey, wild rice is my staple. I actually have a stake in this. Wild rice is my grain, it’s what I eat. Wild rice is the only one I eat. My body has pretty much rejected anything else so. She’s a good plant/being. I keep calling her she and I don’t think that’s quite right. But I won’t refuse to call him/her it. That’s all I have to say” (p. 4).

Sweatlodge

WS310168: “You know, we use rice now ceremonially more than anything. Because as far as I know on the reservation, it’s trying to be brought back as a staple, it’s being practiced there in a traditional way as much as it can be done” (p. 2).

Rice as Threatened

WS310168: “There used to be until it was ruined by pollution, and the mills, and all that and the motor boats, and all this other insanity, the jet skiis and everything that go ripping around shooting gas and oil on the water and killing the rice” (p.2).

WS310178: “Well, when those lakes and rivers freeze up that have the rice, we have snowmobiles and we have boats in the summer, you know. The exhaust and the runoff from the farms, the so called green lawns on people’s properties that effects that Manoomin. Some of the most amazing rice beds I’ve seen, were on lakes with no houses. There’s one lake that we went to this fall, that didn’t have any houses on it and that rice was over 12 feet tall” (p.3).

WS310178: “We restrict boats, we restrict motor boats, snowmobiles and a lot of other gas operated recreational vehicles within a certain area of that wild-rice wetland” (p.3).

WS310178: “We understand that rice requires feasting and talks in our ceremonies . A lot isn’t done on their part. It’s done on our part. It’s not really done on their part. So, until they request information like that from us. I think they’re going to have a hard time with that. There is a spiritual component. They want to maintain that it’s purely a scientific thing” (p.4).

WS310175: “We’ve got a lot of invasives. Some are natural. Some are not. We try to control them and we get to people out there that they sometimes hand pick this stuff, ok? Because some of those invasives are really taking over certain areas. Some of them are naturals, that compete with the wild-rice for certain areas, like lily pad and a few other plants like that, that grow in a certain area and those big leaves, of course cover up the bottom so the sun cant get down to the rice. That’s been a little bit of a problem. And natural controls normally, we had a lot of muskrats that would eat certain plants that would be their food. The muskrats have kind of faded away. They are trapped out or hunted out or something. But they are not as plentiful as they used to be. That’s a factor. We are constantly monitoring. We have some areas that are very thinned out. What we did was we hired a group from the Fond du Lac tribe to come down. They have cutters that they use underwater, cutters for rice propagation. So, we had them come down and cut some areas. And we replanted those areas with our own rice. A couple of those areas really came back strongly. So, it was the right thing to do" (p.1).

WS310175: "I think to some extent, it probably have, we used to have a lot more rice than we do now. In Ashland here, Ashland has always been a major industrial place since way back in the 1800's. There was a shipping place at one time. If you go through there, you can still see some of the shipping docks there, the ore docks. They were shipping iron ore from Minnesota to the smelters in the East, going right through here. Then there was coal coming in on the ships to fire those plants. And so, they were burning coal and wood and stuff like that, so there was major pollution in the area. In matter of fact, they got a clean up of the bay going on right now. They are trying to clean up all that old junk that's down there. I suspect it has reached us in some form or the other possibly through the water or most likely just from the sky. Because those air borne pollutants can travel a long ways actually" (p.4).

WS310177: "We know Monsanto is looking at, their goal is to have 100% of the seed in the world. Who would want that? You know? And for what purpose? You know? And it's just so bizarre to us. That somebody would want to take all of the seeds in the entire world and keep them. To be able to manipulate them for what purpose? So what we want is to find out the original seed. The original seed and to be able to nurture that seed back here. And that we ensure our people that we have that food from that seed. And see later on in the future, the difference between them. You know?

If we can grow crops here, from that natural seed here without any interference from other GMO plants, we might have something here, you know. We might have a much healthier population than anywhere else, you know? But we know, that the other tribes are doing the exact same thing, they're thinking that way, you know. And it's too bad that we have to think that way. That a seed, something that was gifted to us by the Creator, has been manipulated so much by humans, you know? It wasn't perfect enough for them, even though the Creator made it. Isn't that crazy?" (p.3).

WS310177: "So, our conservation efforts, looking at the water temperature, the water depth. Looking at the other species that are around it and how aggressive they are. We can observe all of that; however, if we try and manage that, make use of those aggressive species in a different way and we may not be able to change the water depth or the water temperature, because everybody else around us is not doing the same thing. And everybody else around us saying well, they're not doing it either so why should I? And they're not doing it, so why should I?" (p. 4).

WS310170: "There is a disease called brown spot disease that is associated with warm wet weather that seems to be occurring more frequently. We have seen greater outbreaks of this disease than we did in the past. There is just a whole lot of things that rice has been negatively impacted and going to continue to be negatively impacted" (p.4).

WS310169: “Kind of the same thing as question 7, I think it’s important. I just don’t want to take away from some of the traditional methods. You have to figure out the balance between the two. Don’t assume that, just because it works in one area doesn’t mean that it will work in another area. I’ve seen some people say, well, it worked in Florida and it worked for one of the tribes down there. My response, is that’s this ain’t Florida. We may be the Everglades of the north up in Bad River. Our water and our system is a lot different. Our animals are different. We always have to think about those too. It’s not just about us. It’s about that kin relationship with the land and those animals….the migizi, the otter, the bear, the raccoon and those insects too. And so I always try, making sure that being mindful of those that have always been there, long before the Anishinaabe cultivated that rice” (p.6).

Tobacco Offerings

WS310176: “When we make tobacco offerings, we give thanks to Ojibwe, ogitchigamie, the Great Lake of our people. We give thanks and not only for the fish and the waterfall, the highways, the transportation, but also for our identity as a people” (p. 3).

WS310178: “But today, what my family does. We have a little. We smoke a little tobacco and we make a few offerings into the lake and from that point on then we begin our harvest” (p. 2).

WS310175: “Well, like I said, we have a water ceremony in the spring. We have ceremony in the fall where we have to put some tobacco down in the water and then we put down and start checking” (p. 2).

WS310169: “Then I always put out my asema (my tobacco) not only to the water where I’m going, but the land where I’m on. Thanking the land spirits, making sure it’s a good voyage back to the land and to the place where I put that tobacco down. I always put tobacco down or asema or kinnikinic right next to my house. Because I always believe that’s the place where I’ll always come back to. Even though I believe in Madison now, it’s just as important to think about. As we talk about our traditions, you never make a prayer for yourself. You should always think of those that are no longer here. Someone is always praying for you too. When I go out ricing, it’s determining who’s the pusher or who’s knocking the rice” (p. 2-3).

WS310169: “You always think about others first. You always been told that you should think about those that are no longer here, or those ones that are going out there as well. Because my dad always said someone is always praying for you too. So you always ask for that. Think about one another” (p. 3).

WS310177: “So when you think about the plants that they’re living and breathing entities, you know that live and they live through the cycle of their life. Just like we live through the cycle of our lives, you know? The difference is they don’t commit suicide, you know? They don’t try and shorten their own lives, you know. They remember to work with all the other things. Work with the bees, work with the birds, work with the other animals and the other insects. They remember that. So, yeah, who is the more civilized?” (p.4).

Youth Lack of Interest

WS310168: “But it just got less and less and less. Now with the younger people, the wheel came along and people took off to the cities to get jobs and it became less of something that you needed to do. Back in the old days, either you went and gathered that wild-rice and had to store for winter or you were a dead man. But now you can get a job, get a check, go to the store and buy some potatoes” (p. 2).