

Wild Rice White Paper

Preserving the Integrity of Manoomin in Minnesota

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EXECUTIVE SUMMARY

This paper proposes that the University of Minnesota and Anishinaabe nations of Minnesota embark upon building an informed relationship founded on mutual respect and reciprocity with particular regard to manoomin (wild rice). Manoomin holds a unique and sacred place in the lives and traditions of the Anishinaabe, but virtually all wild rice research emerging from the University has reflected the goals and desires of non-Indians with little regard for native concerns, perspectives or the considerable store of traditional knowledge. This served non-Native interests well at the expense of native people, and over their strident objections. This document details several options exploring how the relationship between Anishinaabe nations and the University of Minnesota might be transformed through more effective communication and engaging in exciting new research collaborations centered on a shared agenda.¹

PRESERVING THE INTEGRITY OF MANOOMIN

The Anishinaabe (Chippewa/Ojibwe) nations of Minnesota demand that natural populations of manoomin (wild rice) be protected from potential contamination by genetically engineered wild rice. The cultural and spiritual significance of manoomin to the Anishinaabeg can be difficult to comprehend to those outside the culture. Regardless, preserving the integrity of the native populations of manoomin is a primary concern. Treaties acknowledge the unique status of manoomin and provide a means to preserve its integrity.

This paper is one of the outcomes of a symposium “People Protecting Manoomin: Manoomin Protecting People” held at Mahnomen, Minnesota on the White Earth Reservation during August 25-27, 2009.² At the close of the symposium, the Chair of the White Earth Nation, Erma Vizenor, requested that a draft white paper be written for the Anishinaabe nations of Minnesota.

ANISHINAABE STANCE ON MANOOMIN

Anishinaabeg refer to wild rice as manoomin, and it is a sacred plant. Manoomin is a living entity that has its own unique spirit. Anishinaabeg have a responsibility to respect that spirit and to care for it. The Anishinaabe migration story tells of a time when the tribe was living in the East but was instructed by the Creator to follow the miigis (cowrie shell) west until they reached the place where the food grows upon the water. Manoomin is the food that grows upon the water.³ “We consider it to be sacred, because it’s a gift from the creator,” said White Earth elder Earl Hoaglund. “It was foretold in those prophecies that as the ice melted we were to move westward and food would be provided for us on the water. And that’s what happened. When we moved into the Wisconsin, Minnesota areas, that rice was already there, growing.” Thus, in addition to nutritional value, manoomin has a medicinal value derived from its spiritual significance. It is often used to promote recovery from sickness as well as for ceremonial feasts. Even though manoomin varies in size and color, it is always perfect. It is a sacred food deeply intertwined with Anishinaabe identity and spiritual practices, and has been a defining feature of Anishinaabe economic life and landscapes of the Great Lakes and Mississippi River regions before and after the permanent settlement of European immigrants. The early nineteenth century Anishinaabe historian, William W. Warren, wrote that the natural resources of northern Minnesota “abounds in wild rice in large quantities, of which the women gather sufficient for the winter consumption of their families.”⁴

Anishinaabe people depended on the wild rice harvest prior to and throughout the treaty and reservation eras, and continued to view themselves as the caretakers of wild rice in its unique ecosystem. Anishinaabe women protected the grain through the practice of binding rice in the pre-harvest state, and communities elected ricing committees, the oshkaabewisag, to organize the harvest, scientifically observe water levels and the ripening of the rice, and ensure access for the common good. Twentieth century scholars have maintained that the entire indigenous legal

system designed by the Anishinaabe was for the purpose of protecting wild rice in its habitat, noting that “what serves the rice is law; what harms the rice is illegal.”⁵

In the twentieth century, Anishinaabe people steadfastly maintained their guardianship of the wild rice economy, but struggled with colonial infringements to their land tenure and natural resources. The timber industry and dam construction were especially destructive, and scholar Thomas Vennum, Jr. has written that “Government and industry control of water levels has in nearly every instance proven disastrous to wild rice crops.”⁶ Work conducted by the US Army Corps of Engineers destroyed the wild rice at the headwaters of the Mississippi River, a pivotal economic, cultural and spiritual landscape for many Anishinaabe communities. Further challenges emerged with the entry of non-Indian harvesters and the state regulation of ricing that began in 1939, an era when USDA agronomist Charles Chambliss wrote that the non-Indian citizens of Minnesota and Wisconsin “have been greedy and paid no attention to the natural laws regarding the plant’s production,” while acknowledging the genius of Anishinaabe stewardship of wild rice within the Great Lakes ecosystem.⁷ Despite formidable political, economic and environmental challenges, Anishinaabe people today, like their ancestors, continue to hold a unique cultural and spiritual relationship and a vested commitment to wild rice, and have been steadfast over many centuries to ensure that wild rice will remain integral to Anishinaabe life for future generations.

In recent decades, manoomin is increasingly threatened by the work of agricultural scientists, including scientists and research at the University of Minnesota. Anishinaabeg have worked to protect manoomin from the potential dangers of this work but initially faced hostility from the University of Minnesota.⁸ In 1998, Norman Deschampe, the Minnesota Chippewa Tribal President, sent a letter to Mark Yudof, then University President: “We object to the exploitation of our wild rice for pecuniary gain... We are of the opinion that the wild rice rights assured by treaty accrue not only to individual grains of rice, but to the very essence of the resource. We were not promised just any wild rice; that promise could be kept by delivering sacks of grain to our members each year. We were promised the rice that grew in the waters of our people, and all the value that rice holds.”⁹ In recent years, after decades of dismissing Anishinaabe concerns, the University of Minnesota was finally willing to share research information and begin working toward a collaborative approach with Anishinaabe nations. This resulted in the August 2009 Manoomin symposium and ongoing work to implement recommendations that emerged from the symposium, including the creation of this document. These efforts indicate a motivation to improve the relationship around and to protect natural manoomin from harm. Anishinaabeg are willing to collaborate on research projects with goals such as protecting manoomin from genetic contamination and environmental degradation, and issues of water quality essential to the health of wild rice. Anishinaabeg want to be a part of developing and participating in research questions related to manoomin.

HISTORY OF MANOOMIN

Minnesota Legal and Legislative History Timeline

- In 1837, the United States and several Indian bands signed a treaty that guaranteed the rights to hunt, fish and gather (which included wild rice) on lands ceded to Anishinaabe nations. These rights, which were guaranteed in the treaty, were upheld in the 1999 Supreme Court decision in the case of Minnesota, et al., Petitioners v. Mille Lacs Band of Chippewa Indians et al.¹⁰
- In the 1854 Treaty, Anishinaabeg ceded a large quantity of land in northern Michigan, Wisconsin and Minnesota, but retained the rights to hunt, fish and gather in those ceded lands.
- In the 1855 Treaty, Anishinaabeg ceded significant portion of northwestern Minnesota but retained usufruct rights. Hunting, fishing, and gathering rights were not ceded.
- In 1998, Anishinaabe nations began expressing concerns about potential genetic engineering of manoomin.¹¹
- In 2005 and 2006, bills prohibiting the release of genetically modified wild rice and requiring a study of wild rice, were introduced to the state legislature; however, these bills did not make it through the legislative process.¹²
- In 2006, six Anishinaabe nations in Minnesota passed resolutions supporting the 2006 legislation.¹³
- In 2007, Senate File 2096, Omnibus Environment, Natural Resources, and Energy Appropriations bill, which stipulates regulations on the release of wild rice, was signed by the Governor (May 7, 2007).¹⁴ The bill became Session Law 2007, Chapter 57, Article 1, Sections 140 and 163. Specifically, Section 140 required the Environmental Quality Board (EQB) to “notify interested parties if a permit to release genetically engineered wild rice is issued anywhere in the U.S.” and directs the EQB to require an Environmental Impact Study (EIS) for proposed release of genetically engineered rice in Minnesota.¹⁵
- In 2008, in accordance with S.F. 2096, the MDNR convened a research group comprising Tribal representatives, Fish and Wildlife staff, MDNR staff, Ducks Unlimited staff, faculty and students. The document, “Natural Wild Rice in Minnesota: A Wild Rice Study document submitted to the Minnesota Legislature by the Minnesota Department of Natural Resources February 15, 2008.
- 2008 to present, the above research group has continued to meet periodically (approximately once every six months) to discuss on-going interests in research, management and policy as they relate to natural stand wild rice.

University of Minnesota Research and Legislation

The University of Minnesota has worked with farmers, marketers and processors to develop wild rice as a commercial agriculture crop. Since 1978, the University of Minnesota has released nine

varieties of paddy wild rice developed using traditional breeding techniques; these varieties are grown in commercial paddies and mechanically harvested.¹⁶ By 1986, more than 95% of commercially marketed wild rice was paddy rice, most of which was from California; 85% of Minnesota-harvested wild rice is machine-harvested.¹⁷ In 1987 the University began working toward the goal of mapping the wild rice genome. The University testified against the 2006 bill prohibiting release of genetically modified wild rice; though later expressed neutrality on the 2007 bill (see timeline above).¹⁸

Most of the current (FY 2011) cultivated wild rice research at the University of Minnesota is funded by a USDA project entitled Wild Rice Breeding, Genetics, and Genetic Resources.¹⁹

Ecological Context and Potential Harm from Genetically Engineered Wild Rice

Wild rice is one of four species in the genus *Zizania*. Northern wild rice is the main species producing grain currently utilized by humans for food. These species have a large amount of genetic variation, and vary in growth form and development depending on the environment.²⁰

A possible risk to natural populations of wild rice is the introduction of genetic material from genetically engineered wild rice. This could occur by two different routes. If living seed from genetically engineered plants was introduced into rivers or lakes with natural stands of wild rice, plants growing from the genetically engineered seed could cross-pollinate with the natural population, resulting in changes in the genetic composition of the natural population. Alternatively, pollen from genetically engineered plants grown near a natural population of wild rice could pollinate the natural population, resulting in changes in its genetic composition. Both of these could be considered an alteration of the natural state of wild rice, and therefore they constitute a potentially significant risk.

The magnitude and likelihood of the second route depends on the distance that viable wild rice pollen can travel as well as the proximity of wild rice farms to natural populations of wild rice. In her 2004 masters thesis,²¹ Joanna Cregan found that pollen can travel and be viable “at least two miles.” In the context of gene flow, populations within a two mile radius are likely to experience a genetic input from each other. Whether that contribution of genetically engineered genetic material would be detectable in the natural wild rice population will depend on a number of ecological factors.

GOALS AND POTENTIAL STRATEGIES FOR ATTAINING GOALS

Goals and strategies to protect, preserve, and properly care for manoomin emerged from the talking circles conducted during the final day of the Wild Rice Symposium held August 25-27, 2009 on the White Earth reservation—of which this document is an outcome.

Recommendations that emerged during talking circles were recorded on paper and combined into the following three strategic approaches 1) Respect, 2) Reciprocity and 3) Legal Options and Legislative Policy and Regulation. Each strategic approach is described below, followed by options that could help to attain the broader goal.

Respect

One strategy to protect, preserve, and properly care for manoomin is to treat both manoomin and Anishinaabe nations with respect. We must develop more effective communication. **An infrastructure that supports communication and educational exchange between the University of Minnesota and the Anishinaabe nations, especially regarding foundational decisions about wild rice research, should be established as soon as possible.**

When Anishinaabe nations became concerned about research at the University of Minnesota on the genetics of wild rice in 1998, they requested information from President Yudof of the University of Minnesota about the type of research being done. Dean Charles Muscoplat of the University of Minnesota took several years to respond to this request, at which point he provided a disorganized box of papers to the tribal representatives who drove hundreds of miles from their reservation to receive the information.²² This demonstrated callous disrespect for tribal concerns regarding the proper care of a sacred natural resource. In its bid to become one of the nation's top-three research institutions, the University has invested significantly in many areas, including equity and diversity; however, such an abysmal record of communication with Native nations indicates a serious need to create infrastructure that supports positive change. In its framework for "Reimagining Equity and Diversity," the University identified core values, including social justice, community engagement, and accountability it will use to guide a transformation of the University.²³ This effort must include improved communication and engagement with the Native nations of Minnesota on issues they deem important.

Promoting a respectful relationship between Native nations and *all sectors* of the university has many benefits. For example, communication and education has the potential to foster innovative research and accrues funding, as is evidenced by National Science Foundation-funded projects at the University of Minnesota including Reach for the Sky and the Manoomin Project. These projects work to make learning STEM (science, technology, engineering and mathematics) more culturally relevant to Anishinaabe youth (grades 5-12) and connects researchers, Natives, and educators in the process of reconstructing the historical distribution and abundance of wild rice. Efforts that include Native peoples in the foundational discussions and decisions about research on wild rice should not only be encouraged, but they must be implemented at a University-wide level in order to break down historical barriers and build trust between the Anishinaabe nations and the University. Failure to invest in infrastructure that supports communication and education between these two communities will undoubtedly result in missed funding opportunities. It will also lead to increased frustration, negative publicity and perhaps even legal action that will hinder the University of Minnesota's ability to pursue its goal of becoming a top-three research institution.

As strategies for fostering communication between Anishinaabe nations and the University are developed and implemented, it will be essential to acknowledge and validate the different types of knowledge and communication styles that each party brings to the conversation. Based on our experience at the Wild Rice Symposium, communication about wild rice research spans a range of styles, from narratives of personal and cultural history and research descriptions about

genetic engineering to discussions of ethics and values. Supporting a diversity of topics, research methodologies and communication styles will foster better, more appropriate research on wild rice and strengthen ties between the University and Anishinaabe nations.

Proposed Communication Opportunities

- **An Annual Disclosure Report should be prepared by the University.** This report would include disclosure of all current research being conducted by faculty as well as information regarding the funding for the research including where the grants are housed and a detailed breakdown of the allocation of funds. This report should be distributed to all Native nations and posted on the proposed website (see below).
- **Create an interactive website** that would include both wild rice researchers at the University of Minnesota and Native nations. Maintaining a website with the contact information and relevant research goals of all members of the University community who study wild rice would both facilitate collaboration within the University and increase the transparency of research on this sacred food. A website about wild rice research would be incomplete without Native perspectives. Anishinaabe ricers have a deep knowledge of wild rice, which the members of the University community would benefit from learning. Providing a forum for Native peoples to share their perspective will aid in legitimizing traditional knowledge as important and valid.
- **Create an advisory board** at the University of Minnesota that would attend relevant meetings, educate members of the University community about the cultural, spiritual, economic, and political importance of wild rice to the Anishinaabe, and provide oversight for the ethical conduct of research on wild rice. Researchers would report on and seek advice for both current on upcoming projects. These meetings would foster collaboration and transparency, and they would provide a forum for researchers and Native peoples to meet face to face to share their knowledge and concerns about wild rice. Reports from these meetings should be public and posted on the website.
- **Establish a bi-annual Wild Rice Symposium** and broaden participation. Virtually all those who attended the first symposium supported the idea that this forum for education and communication should continue and expand. In particular, we encourage the participation of University researchers who study wild rice, members of the University Office of Equity and Diversity, and the Office for the Vice President of Research.
- **Encourage regular cultural exchanges** between personnel at the University of Minnesota and Anishinaabe nations. Much of the current controversy surrounding wild rice occurs due to lack of understanding regarding the historical role of wild rice in the cultural life of the Anishinaabe people. Greater opportunity to share across knowledge traditions will certainly lead to enhanced appreciation of the concerns each community expresses.

Improving communication between Anishinaabe nations and the University will lay the foundation for a respectful relationship and foster new ideas for mutually beneficial research. The communication and collaboration processes we propose are consistent with the priorities of the University's new vision for equity and diversity, which include the goals to "support and strengthen... community outreach efforts," "engage internal and external communities" to support the diversifying faculty and staff, and "support institutional assessment, accountability, and collaboration."²⁴ The actions described above will help the University of Minnesota reach its goal of becoming a leading research institution because such institutions require an environment conducive to open dialogue among diverse communities, innovative research conducted ethically on problems important to broad sectors of the public and a reputation of service to all communities in the state.

Reciprocity

Anishinaabeg and University of Minnesota students and faculty expressed interest in establishing a relationship that would create opportunities for collaborative research. Although many tribal members were wary of the potential harms of certain forms of research, it was acknowledged that collaborating with researchers could possibly bring many benefits, such as increasing access to University resources, the opportunity to influence research, provide access to information needed to make good decisions, and a way to ensure that wild rice is properly respected and honored. Such collaborations would also benefit the University by bringing a rich cultural perspective, traditional knowledge about wild rice and its environment and creating unique interdisciplinary and funding opportunities.

Collaboration will help prevent future conflicts like the wild rice research situation that the University currently finds itself in with Anishinaabe nations. For example, every other year the Federal government funds research for the breeding of wild rice grown in paddies at the University of Minnesota Research and Outreach Center at Grand Rapids. Many tribal members see this research as a threat to natural wild rice. Similarly, research on the genetics of wild rice was started at the University of Minnesota with no consultation with Anishinaabe nations, and continues despite objections from Anishinaabe nations. Failure of University leaders to respond to the concerns of Anishinaabe leadership about wild rice research has contributed to the relationship of mistrust that exists today.

Talking circles at the Wild Rice Symposium in August 2009 generated many ideas for fostering research collaborations between tribal members and University of Minnesota researchers. *One primary need is to establish what wild rice research is not acceptable to the Anishinaabe nations.* This could take the form of a memorandum of understanding that would articulate guidelines for wild rice research wherein impacted Anishinaabe nations would participate in outlining research approaches that they would support or oppose, including providing guidance on the appropriate conduct of supported research. *A critical component of*

this is that there should be a way for Anishinaabe nations to prohibit research considered objectionable.

Proposed Research Collaboration Opportunities

- **A research protocol** could create a united stance within Anishinaabe nations on what wild rice research is acceptable and what is not. The document could outline the types of research that Anishinaabe nations support and how that research should take place. A critical component of this is that there should be a way for the Anishinaabe nations to veto research considered objectionable. The position paper would create an environment where Anishinaabe nations would be willing to engage in partnered collaboration with University researchers on a mutually defined research agenda.
- **Identify funding opportunities for interdisciplinary research** related to wild rice. Increased funding should be shared by tribal colleges, Anishinaabe governments and concerned non-profits for their efforts to work with the University. Such funding would encourage long-term collaboration and joint identification of relevant research questions.
- **Implement a formal process for engaging with tribal communities** around wild rice issues, including mechanisms for review and approval.
- **Routine informal meetings with university researchers and administrators** related to wild rice research could also pave the way for increasing collaborations. Informal settings can foster a more relaxed atmosphere in which University representatives may more readily entertain innovative solutions.
- **Create education centers** like a Water Center and an Indigenous Science Institute where Native people and the University of Minnesota work together to further the emerging field of Native science and educate broader audiences about the values, knowledge, and scientific research associated with important natural and cultural resources like wild rice.

Ongoing effective collaboration could help Anishinaabe nations achieve goals such as protecting wild rice from environmental degradation and influencing wild rice research decision-making by enabling Native people to play a leading role in developing research questions related to wild rice.

Legal Options and Legislative Policy and Regulation

One strategy that emerged from the talking circles is for *the University of Minnesota to acknowledge and formally recognize that Anishinaabe nations have control over the wild rice resource on Anishinaabe lands and ceded territories*. Whether this is a matter of asserting existing rights or establishing something new, there are many paths by which this could be achieved.

Foundational Policies for Wild Rice Research

We request the University of Minnesota acknowledge and agree that:

1. Anishinaabe nations have the authority to prohibit scientific research about wild rice within their treaty territories. All wild rice research proposed to take place on Tribal lands and ceded territories must be approved by the Anishinaabe nation(s) before it can begin.
2. Genetic engineering of wild rice shall be prohibited.

Proposed Legal Options and Legislative Policy and Regulation Opportunities

- **Memorandum of Understanding (MOU) should be** established between the Dean of the College of Food, Agricultural, and Natural Resource Sciences, the Director of the Agriculture Extension Service, the Office of the Vice President for Research and Anishinaabe nations.
- **University policy.** The Board of Regents should adopt policies that honor the two principles stated above.
- **Anishinaabe nations will seek to pass State legislation.** In 2006, all Minnesota bands passed resolutions in support of state legislation. In 2007, state law was enacted that makes the state Environmental Quality Board (EQB) responsible for requiring an environmental impact statement (EIS) in the event of a permit application for genetically engineered wild rice.
 - The current 2007 law is inadequate because it does not prohibit genetic engineering of wild rice. Legislation could be crafted to prohibit genetic engineering of wild rice in the State of Minnesota. Or, via appropriations and therefore, a temporary solution, funds could be zeroed out for Minnesota institutions receiving state funds that do not prohibit genetic engineering of wild rice.
 - This option would require lobbying for sponsorship and passage of the bill.
- **Litigation** will be explored if other efforts are unsuccessful.

FROM ACADEMIC FREEDOM TO ACADEMIC RESPONSIBILITY

In the current controversy involving research that might lead to genetic engineering of wild rice at the University of Minnesota, the University has not taken an official stance. The University has been conducting genetic studies of wild rice since 1987, including development of a partial map of the genes, to assist in the conventional breeding program. However, University leaders have not been willing to discuss the possible risks of genetic engineering of wild rice nor discuss possible limits on genetic engineering. Charles Muscoplat, a professor of medicine and

microbiology, and former vice president for agricultural policy (1999-2006), among other administrative roles, emerged as the public voice defending existing research programs even after Anishinaabe nations of Minnesota requested consideration of a moratorium on such research. Muscoplat vigorously defended the research by employing the notion of “academic freedom,” arguing that the University would never voluntarily agree to end research into wild rice genetics because “to do so would compromise the U’s commitment to academic freedom”²⁵ and “if a faculty member can get the money to do the research, we do it.”²⁶

Muscoplat maintained that academic freedom excuses researchers from considering the impacts of their research and whether such research is responsible to undertake or has significant social impacts. Yet many reject this arguing instead that threats to the public welfare should be considered and, in certain circumstances, should take precedence over academic freedom in deciding upon research projects.²⁷ In an extensive paper on the difference between “scientific freedom” and “scientific responsibility,” Edsall declares that, “we reject the notion of the so-called ‘technological imperative’ - the idea that we must pursue new technological possibilities wherever they may lead.” He further explains that “Many schemes that are technically brilliant must be rejected because their wider impact would, on the whole, be more damaging than beneficial. In some cases it would be preferable...not to carry a project from the stage of research even into preliminary development, lest pressures would then arise that would lead to its full development.”²⁸

This statement epitomizes many of the concerns held by Anishinaabeg: if the current University-sponsored genetic research on wild rice is continued and published, whether or not the U of MN based researchers ultimately decide to produce genetically modified wild rice, other organizations may build upon existing work and do so independently. Certainly from an Anishinaabe point of view, this constitutes a technological development for which there are no benefits significant enough to justify the potential, irreversible costs.

University administrators should embrace a notion of “Academic Responsibility” by following through with the University’s stated mission of being “conscious of and responsive to the needs of the many communities it is committed to serving.”²⁹ With respect to manoomin, this would involve working with Anishinaabe nations to reach an agreement that addresses their concerns while impinging as little as possible on the University’s overall research mission. No longer should this conversation be brushed under the carpet under the auspices of “academic freedom.”

CONCLUSION

Anishinaabe nations strive to protect, preserve, and properly care for manoomin. The University of Minnesota has a deeply troubled history with Anishinaabe nations on achieving these goals and, in fact, has worked in direct contradiction to them while withholding important information from Anishinaabe nations. As the University of Minnesota works toward the goal of

becoming one of the top three research institutions in the nation, it has an opportunity to create a respectful and reciprocal relationship with the Anishinaabe nations of Minnesota. Promoting a new relationship between Native nations and *all sectors* of the University has many benefits for both parties. Additionally, a relationship based on the foundations of respect and reciprocity aids in the fulfillment of the University of Minnesota's mission and status as a land-grant institution. An infrastructure that supports communication and educational exchange between the University of Minnesota and Anishinaabe nations, especially regarding foundational decisions about wild rice research, should be established as soon as possible; collaborative research projects will follow. Effective communications, respect and reciprocity can create positive partnerships beginning with manoomin but quickly expanding to other areas of shared interest.

¹ This white paper was written collaboratively. At the end of the "People Protecting Manoomin: Manoomin Protecting People: A Symposium Bridging Opposing Worldviews," held on the White Earth reservation, August 25-27, 2009, White Earth Chairwoman Dr. Erma Vizenor requested that a white paper document be written. A core group of University of Minnesota graduate students began work on the document and over the next year and half many University and non-University people made contributions. List of authors: David Andow, Theresa Bauer, Mark Belcourt, Paul Bloom, Brenda Child, Jill Doerfler, Amber Eule-Nashoba, Thelma Heidel, Adam Kokotovich, Alexandra Lodge, Joe LaGarde, Karl Lorenz, Louis Mendoza, Emily Mohl, Jake Osborne, Kristina Prescott, Paul Schultz, David Smith, Susan Solarz, Rachel Walker.

² This symposium was the product of two years of discussion between the University of Minnesota and the White Earth Nation, stemming from earlier discussions. In other words, this is one more piece contributing to a long history of interaction between the University and the Anishinaabeg.

³ Benton-Bani, Edward. *The Mishomis Book*, p. 101-102.

⁴ Warren, William. *History of the Ojibway People* (St. Paul: Minnesota Historical Society Press) p.186.

⁵ Lips, 1956.

⁶ Venum, Thomas. *Wild Rice and the Ojibway People* (St. Paul: Minnesota Historical Society Press), 1988, p. 290-296.

⁷ Chambliss, National Archives, "Wild Rice in Minnesota."

⁸ Research on the genetics of wild rice was started at the University of Minnesota with no consultation with the Tribes, and continues despite objections from the Tribes. Failure of University leaders to respond to the concerns of tribal members about wild rice research has contributed to the broken relationship that exists today. Despite these difficulties, changes in leadership at the University and increasing interest in wild rice research provide a window of opportunity to restore relationships and build an infrastructure for research collaborations that could last beyond any one administrator.

⁹ <http://www.orionmagazine.org/index.php/articles/article/305/>

¹⁰ Walker and Doerfler, 2009.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Additionally, it specifies that if an EIS is required, “exemption from state law when federal oversight is involved does not apply.” Finally, it requested a study led by the commissioner of natural resources (MDNR) of “evidence of population decline, location and acreage of wild rice stands, and potential threats to those stands.” The bill required completion of the study by early 2008.

http://www.senate.leg.state.mn.us/departments/scr/billsumm/summary_display.php?ls=85&body=Senate&billtype=S.F.&billnumber=2096&ss_year=2007

¹⁶ <http://www.maes.umn.edu/components/7658-11.asp>

¹⁷ <http://www.savewildrice.org/winona-article>

¹⁸ Walker and Doerfler, 2009

¹⁹ Of the \$272,000 annual funding \$162,000 is given to the University under a Cooperative Agreement, to fund conventional breeding at the University of Minnesota, North Central Research and Outreach Center in Grand Rapids plus some funding for a scientist at the St. Paul Campus to identify genetic markers and candidate genes that can be used in marker assisted selection of plants in the breeding program. The genetic work, also receives funds from the Minnesota Cultivated Wild Rice Council. The remaining \$110,000 is used within the USDA Plant Science Research group on the St. Paul to study fungal pathogens of wild rice using genetic mapping techniques to better understand the pathogenic behavior of these fungi.

²⁰ Counts, R.L., and Lee, P.F. 1993. Phenotypic Plasticity and genetic variability in annula *Zizania* spp. along a longitudinal gradient. *Can. J. Bot.* 71: 145-154.

²¹ Cregan, J. 2004. Aspects of seed storage, pollen travel and population dynamics of wild rice (*Zizania palustris*). University of Minnesota M.S. Thesis.

²² <http://www.mindfully.org/GE/Rice-By-Any-Other-Name27sep00.htm>: 1998 letter to president requesting information.

²³ <http://www.academic.umn.edu/equity/reimaginingdiversity.html>

Particularly the document:

Reimagining Equity and Diversity: A Framework for Transforming the University of Minnesota (Published August 2008)

²⁴ Ibid.

²⁵ Noll, Elizabeth. “Rice Wars: White Earth Land Recovery Project and Slow Food join forces to protect native stands of wild rice in northern Minnesota”. *Minnesota Women’s Press*. 20 April 2005. Electronic. <<http://www.womenspress.com/main.asp?Search=1&ArticleID=538&SectionID=1&SubSectionID=1&S=1>> Accessed 6 December 2009.

²⁶ Levy, Paul. “Genetically engineered wild rice threatens traditional native varieties”. *Star Tribune*. 5 October 2005. Electronic.

<<http://www.organicconsumers.org/ge/rice100505.cfm>> Accessed 5 December 2009.

²⁷ Rabban, D. M. 1988. Does academic freedom limit faculty autonomy? *Texas Law Review*. 1987-1988. 1405-1430.

²⁸ Edsall, J. T. 1976. Scientific freedom and responsibility. Report of the AAAS Committee on Scientific Freedom and Responsibility. *Molecular and Cellular Biochemistry*. 11(2): 113-124.

²⁹ University of Minnesota: History and Mission. University of Minnesota. 2009.

<<http://www1.umn.edu/twincities/hist.php>> Accessed 4 December 2009.