



**Results of the 1997
Wild Rice (Manoomin) Survey
in the 1842 Ceded Territory of Michigan**

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Introduction

The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and the Wisconsin DNR conducted an inventory of wild rice (*Zizania aquatica*) beds in Wisconsin in 1985 (Andryk 1986). This initial inventory and subsequent annual surveys of rice abundance has helped to direct rice enhancement and restoration efforts throughout northern Wisconsin, resulting in substantial increases in total wild rice acreage (David 1997). In 1994, a similar inventory was initiated in Michigan (Dlutkowski 1994). This report summarizes the results of the 1997 effort to identify existing wild rice beds and potential sites for wild rice enhancement, restoration, or establishment in the western upper peninsula (UP) of Michigan. Brown (1997) initiated a similar survey within the 1836 ceded territory in the eastern UP.

Methods

The initial survey conducted in 1994 (Dlutkowski) identified water bodies that appeared suitable for wild rice based on consultations with local resource managers and a review of lake maps. In 1997, this list was refined and on-site inspections were conducted to confirm depth suitability and to evaluate substrate, water clarity, competing plant species, and other site characteristics (e.g. presence of muskrat, beaver, and shoreline development) that may influence the success of wild rice. Lake maps for each site were annotated to delineate existing wild rice beds, substrate type, distribution and relative density of competing vegetation, and areas most suitable for wild rice plantings.

Results

A total of 38 water bodies were visited to evaluate site conditions and past rice enhancement efforts (Table 1). Sites were located in Baraga, Gogebic, Houghton, Iron, and Ontonagon counties (Figure 1). The majority of the new sites visited were considered poor sites for wild rice due to hard bottom substrates and competing vegetation. However, 6 sites (described below) were found with good potential for wild rice establishment. Pomeroy Lake, Perch Lake, and Big Africa Lake all had small areas suitable for wild rice establishment. These areas are not extensive enough to support harvestable stands, but would be beneficial for local wildlife. The Presque Isle River flooding, Brule Lake, and Parent Lake have potential to support significant (harvestable) stands of wild rice.

Pomeroy Lake (Gogebic County; #26 on Figure 1): The northwest inlet to Pomeroy Lake could support a small bed (0.5-1 acre) of wild rice that would benefit local wildlife. The adjoining property is owned by the US Forest Service (USFS).

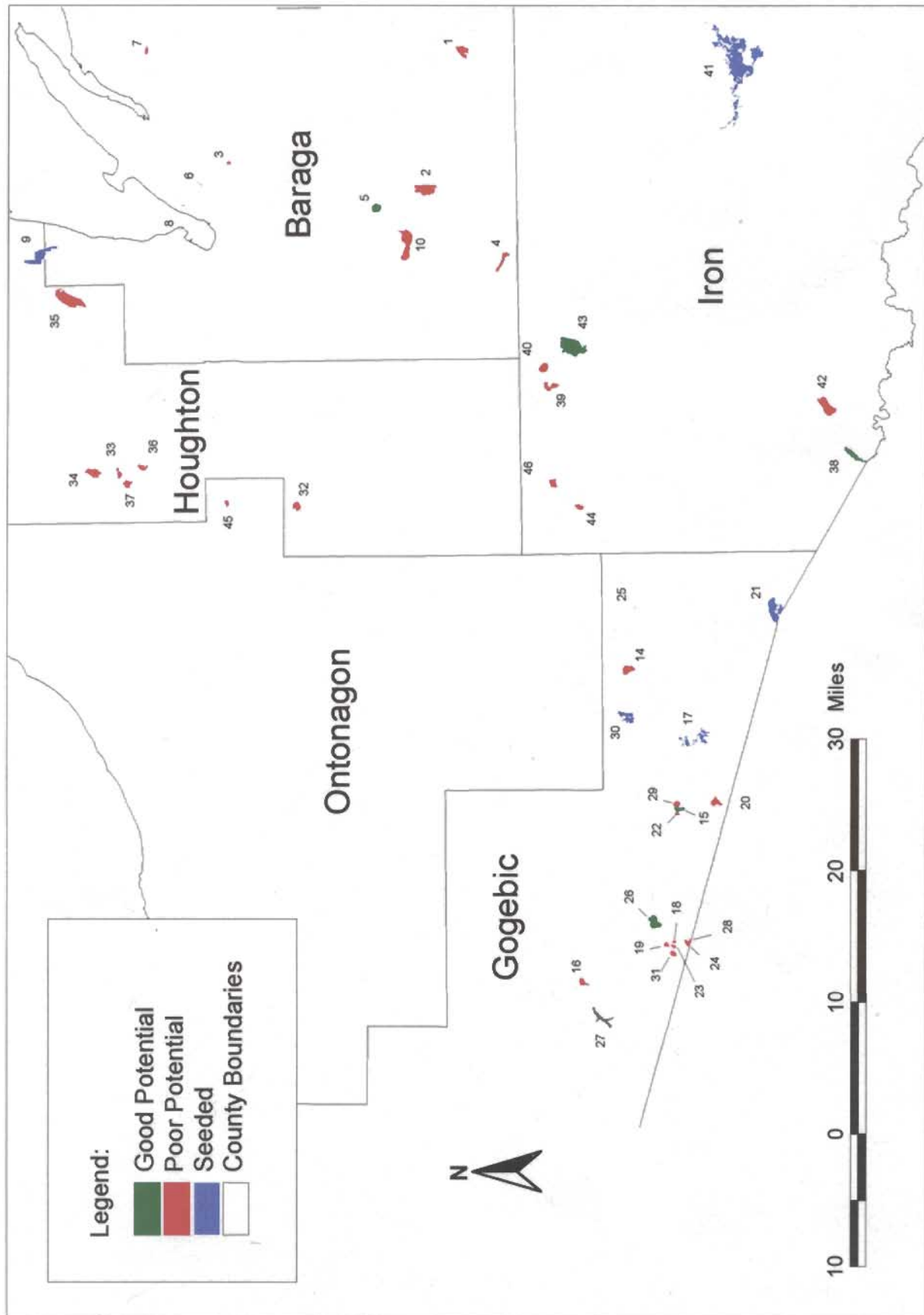


Figure 1. Location and status of waterbodies evaluated for wild rice in Upper Michigan.

Perch Lake (Iron County - #43 on Figure 1): A few wild rice plants were found growing in the northwest and southeast bays of Perch Lake, but it is unknown whether these are remnants of historic beds or more recent plantings. These 2 bays combined could support 1-2 acres of wild rice. The majority of the lakeshore, including the southeast bay, is owned by the USFS, the lakeshore along the northwest bay is privately owned.

Big Africa Lake (Gogebic County; #41 on Figure 1): The channel connecting Big Africa Lake to the Thousand Island Chain could support wild rice along the channel edges (0.5-1 acre). Although boat traffic could be high, the presence of numerous stumps and shallow bars would discourage high speeds and the subsequent wakes that could be detrimental to wild rice. The adjoining landowner is the USFS.

Presque Isle River Flooding (Gogebic County; #27 on Figure 1): The Presque Isle River flooding was originally constructed by the Michigan Department of Natural Resources (MIDNR) to enhance fish and wildlife habitat. However, it has never been actively managed for this purpose. Although competing vegetation currently precludes successful wild rice establishment on the Presque Isle River flooding, plans are currently being developed in cooperation with the USFS (major surrounding landowner), the MIDNR, and the Gogebic County Road Commission (current dam owner/operator) for a winter drawdown on this flowage in 1998. An overwinter drawdown should substantially reduce the density of competing aquatic plants and make the area suitable for planting in the fall of 1999 or 2000. This site has the potential to support substantial beds of wild rice that could support harvest and increase fall waterfowl usage, one of the flowage's intended purposes.

Parent Lake (Baraga County; #5 on Figure 1): Parent Lake in Baraga County also has potential to support harvestable stands of wild rice. Approximately 30% of the lake is $\leq 3'$ deep (~ 50 acres) with very little competing vegetation present. The majority of the shoreline is owned by the state of Michigan (Copper Country State Forest) and there is 1 private landowner on the lakeshore.

Brule Lake (Iron County; #38 on Figure 1): Brule Lake is located at the headwaters of the Brule River in Iron County. This river flows into the Menominee River, whose historic wild rice beds are well documented. It is suspected that Brule Lake also supported wild rice historically, although no documentation has been discovered. Approximately 2-3 acres near the outlet on the southern end of this lake are suitable for rice establishment. The southwest shoreline is owned by the USFS, the southeast shoreline is privately owned.

Discussion

Information derived from this survey will be used to pursue cooperative seeding efforts with the MIDNR and USFS in the fall of 1998 at the sites described above. In general, the 1997 survey confirms the generally held view that the western UP lies on the edge of wild rice's historic range, with few sites north of the Wisconsin - Michigan border region possessing the organic substrate and flowing water necessary to sustain wild rice. In contrast, the findings at Brule Lake in Iron county suggest that there may be more suitable habitat for wild rice in the central UP within the Menominee River watershed where historic wild rice distributions are well documented. The 1998 survey will focus on the Menominee River watershed and additional efforts will also be made to survey select areas within the eastern UP in cooperation with the Bay Mills Indian Community.

Literature Cited

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Table 1. Status of existing and potential rice waters in upper Michigan.

Cnty	Water Body	Surveyed in 1997	ID ^a	Rice Present?	Rice Potential / Status		
					Poor	Good	Seeding History / Cooperator ^b
Baraga							
	Fence Lake	X	1		X		
	King Lake	X	2		X		
	Laughs (Lost) Lake	X	3		X		
	Net River Flooding	X	4		X		
	Parent Lake	X	5			X	
	Pinery Lakes		6	X		X	'91-'95 / KBIC
	Roland Lake	X	7		X		
	Sand Point		8	X		X	'91-'95 / KBIC
	Sturgeon River Sloughs		9	X		X	'93 - '97 / MIDNR
	Vermillac (Worm) Lake	X	10		X		
Gogebic							
	Bass Lake	X	14		X		
	Big Africa Lake	X	15			X	
	Bobcat Lake	X	16		X		
	Crooked Lake	X	17	X		X	'92-'95 / USFS
	Dawn Lake	X	18		X		
	Holly Lake	X	19		X		

^a Refer to Figure 1.

^b KBIC Keweenaw Bay Indian Community
LVD Lac Vieux Desert Band
MIDNR Michigan Department of Natural Resources
USFS U.S. Forest Service
WEPCO Wisconsin Electric Power Company

Table 1. Status of existing and potential rice waters in upper Michigan (continued).

Cnty	Water Body	Surveyed in 1997	ID ^a	Rice Present?	Rice Potential / Status		
					Poor	Good	Seeding History / Cooperator ^b
Gogebic							
	Indian Lake	X	20		X		
	Lac Vieux Desert		21	X		X	'91-'95 / USFS, LVD
	Little Africa Lake	X	22		X		
	Little Presque Isle Lake	X	23		X		
	Moosehead Lake	X	24		X		
	Middle Br. Ontonagon River	X	25	X		X	'95 / LVD
	Pomeroy Lake	X	26			X	
	Presque Isle River Flooding	X	27			X	
	Range Lake	X	28		X		
	Record Lake	X	29		X		
	Sucker Lake	X	30	X		X	'95 / USFS
	Summit Lake	X	31		X		
Houghton							
	Bob Lake	X	32		X		
	Emily Lake	X	33		X		
	Lake Roland	X	34		X		
	Otter Lake	X	35		X		
	Pike Lake	X	36		X		
	Sandy Lake	X	37		X		

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Table 1. Status of existing and potential rice waters in upper Michigan (continued).

Cnty	Water Body	Surveyed in 1997	ID ^a	Rice Present?	Rice Potential / Status		
					Poor	Good	Seeding History / Cooperator ^b
Iron							
	Brule Lake	X	38			X	
	Lake Sainte Kathryn	X	39		X		
	Marten Lake	X	40		X		
	Michigamme Reservoir		41	X		?	'96-'97 / experimental, WEPCO
	Ottawa Lake	X	42		X		
	Perch Lake	X	43	X		X	?
	Robinson Lake	X	44		X		
	Tepee Lake	X	45		X		
Ontonagon							
	Sudden Lake	X	46		X		

^a Refer to Figure 1.

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