



**Manoomin (Wild Rice)
Enhancement and Research
in the Ceded Territories in 2012**

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MANOOMIN (WILD RICE) ENHANCEMENT AND RESEARCH IN THE CEDED TERRITORIES - 2012

INTRODUCTION

The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) conducts a manoomin (*Zizania palustris*) enhancement and research program in the territories ceded in the Treaties of 1836, 1837, and 1842. Most wild rice management projects are conducted cooperatively with other natural resource agencies. This report summarizes activities carried out under this program in 2012.

BACKGROUND

Manoomin has been a staple in the diet of native people in the upper Great Lakes region for over 1000 years (Johnson 1970). It has been an important component of the diet and the culture of the Ojibwe people since their migration from the eastern seaboard into the heart of wild rice range at the west end of Lake Superior (Vennum 1988). With the arrival of Europeans, wild rice also became an important economic commodity, providing critical nutrition to the fur-trappers and traders moving into the area. Today, manoomin retains extraordinary significance to the Ojibwe, and is considered sacred food. The August moon is still referred to as Manoominike Giizis (the Rice Making Moon), and the harvest season is celebrated with traditional pow-wows.

In addition to its value to Native Americans, wild rice provides a valuable food source for wildlife, and its presence increases the biological diversity of wetlands. Manoomin can also improve water quality by tying up nutrients and by decreasing the wind action across lakes that can suspend sediment particles and lead to water clarity and quality problems. Unfortunately, wild rice is much less abundant than it was historically.

The reaffirmation of off-reservation treaty rights has restored the tribes' opportunity to cooperatively manage wild rice in the ceded territories. The general objective for the enhancement program is to increase the amount of wild rice in the ceded territories through the reestablishment of historic beds and the development of new beds. In 1985, GLIFWC and the Wisconsin DNR cooperated in the first attempt to inventory wild rice beds in Wisconsin. In 1987, GLIFWC began off-reservation seeding activities by planting 200 pounds of seed in Pat Shay Lake, Vilas County, Wisconsin in cooperation with the Nicolet National Forest (NNF), and providing approximately 100 pounds of seed to the Wisconsin Department of Natural Resources (WDNR) for seeding on a state wildlife area. The seeding program grew gradually over the next several years, until it expanded significantly in 1991 (Figure 1) with support of funding from the Bureau of Indian Affairs' Circle of Flight Program. Restoration efforts continue to be an important part of GLIFWC's manoomin management program.

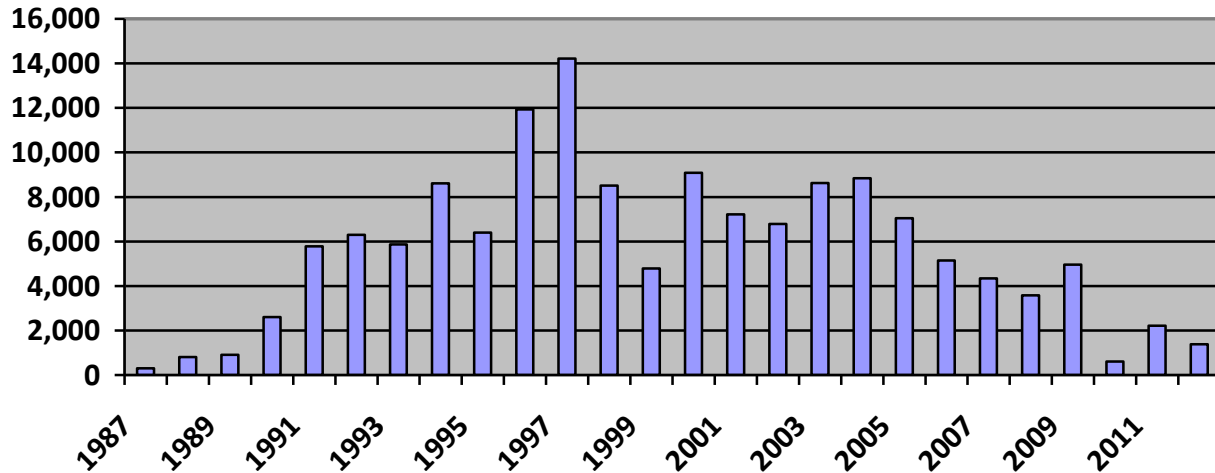


Figure 1. Pounds of manoomin seed purchased by GLIFWC and seeded by GLIFWC, its member tribes, or cooperators, 1987-2012.

ENHANCEMENT

Seeding Summary

In 2012 as in other recent years, GLIFWC concentrated its management efforts on purchasing locally harvested rice and distributing it to cooperators (listed below) who conducted the majority of the seeding. Seeding sites were selected by cooperators, member tribes, GLIFWC staff, or some combination of the three. With the assistance of these cooperators a total of 1,381 pounds of wild rice was seeded in 10 waters: four in Wisconsin and six in Michigan.

GLIFWC’s wild rice seeding program is a highly cooperative effort. Without the strong financial and manpower support of numerous partners, this important undertaking would be far less successful. Tribal interest in this resource has acted as a catalyst, stimulating effective partnerships with other agencies sharing a concern for this resource. Cooperators in 2012 included two GLIFWC member tribes: the Keweenaw Bay Indian Community and the St. Croix Band of Chippewa Indians; the Wisconsin Department of Natural Resources (WDNR); and the Ottawa and Chequamegon/Nicolet National Forests. The contributions of each of these cooperators are summarized below.

Seed purchasing in 2012 was limited by a very poor crop. GLIFWC’s index of rice abundance in Wisconsin for 2012 was 44% of the long-term index average (1985-2012), and was the lowest index over the 27 year period (David 2013). As a result, GLIFWC was able to purchase only 1,381 pounds of seed (Figure 1). Seed purchased was harvested from 8 different waters: Little Rice (Little Pine) Lake, Todd County MN (276 pounds); Little Rice Lake, Forest County, WI (218 pounds); Big Lake Thoroughfare, Vilas County, WI (193 pounds); Mississippi River, Morrison County MN (183 pounds); Little Mound Lake, Todd County MN (176 pounds); Island Lake, Vilas County, WI (155 pounds); Long/Rogers Lake, Todd County MN (132 pounds); and Height of Land Lake, Becker County MN (48 pounds).

Seeding Locations

Four Wisconsin and six Michigan waters received 1,381 pounds of seed under cooperative seeding ventures in 2012. Seeding was done at a rate of approximately 50 pounds per acre, so approximately 28 acres were seeded. Figure 2 displays the locations of seeded waters. Most sites were seeded in the fall with the exceptions of Albino Lake and Paulding Pond (# 5 & 6 below), which were spring seeded. Sites seeded were:

- 1) **Name:** Rice (Glenton, or Rice Lake at Milltown) Lake (WI WBIC 2621600)
Location: Polk County, WI
Cooperator: St. Croix Band of Chippewa Indians
Seed Source: Little Rice (Little Pine) Lake, Todd County MN (100 pounds); Little Mound Lake, Todd County MN (50 pounds); Long/Rogers Lake, Todd County MN (50 pounds); and Height of Land Lake, Becker County MN (48 pounds).
Summary: A total of 248 pounds of seed was planted by the St. Croix Band in the second recent seeding effort on this historic rice lake. The lake did not respond to the seeding of 1,300 pounds between 1992-1994, but apparent recent improvements in water clarity suggested another attempt may be merited. This site also received 400 pounds of seed in 2011.
- 2) **Name:** Cedar Lake (WI WBIC 2270000)
Location: Vilas County, WI
Cooperator: Chequamegon/Nicolet National Forest
Seed Source: Big Lake Thoroughfare, Vilas County, WI (60 pounds); Little Rice Lake, Forest County, WI (36 pounds); Island Lake, Vilas County, WI (30 pounds).
Summary: A total of 126 pounds of seed was planted by GLIFWC in cooperation with the Chequamegon/Nicolet National Forest in an initial seeding attempt on this undeveloped lake just west of the Lac du Flambeau Reservation.
- 3) **Name:** White Sand Lake (WI WBIC 2339100)
Location: Vilas County, WI
Cooperator: WDNR
Seed Source: Big Lake Thoroughfare, Vilas County, WI (81 pounds); Little Rice Lake, Forest County, WI (68 pounds); Mississippi River, Morrison County MN (50 pounds).
Summary: A total of 199 pounds of seed was planted by GLIFWC in cooperation with the WDNR in an initial seeding attempt on this lake. The area seeded was the western bay, near the outlet, an area which was believed to historically support rice.
- 4) **Name:** Robago Lake (WI WBIC 674100)
Location: Florence County, WI
Cooperator: WDNR
Seed Source: Little Rice Lake, Forest County, WI (95 pounds); Little Mound Lake, Todd County MN (32 pounds); Big Lake Thoroughfare, Vilas County, WI (27 pounds).
Summary: A total of 154 pounds of seed was planted by GLIFWC in cooperation with the WDNR in the fifth seeding attempt on this lake since 2006. The lake appeared to be responding from seedings done annually from 2006-2009 – coupled with beaver control – but limited seed supply precluded seeding in 2010 or 2011.

- 5) **Name:** Albino Lake (MI WIC 27-655)
Location: Gogebic County, MI
Cooperator: Ottawa National Forest
Seed Source: Island Lake, Vilas County, WI (55 pounds); Little Mound Lake, Todd County MN (47 pounds); Long/Rogers Lake, Todd County, MN (23 pounds).
Summary: A total of 125 pounds of seed was planted by the Ottawa National Forest in an initial seeding attempt on this lake. (It is not known if any seeding attempts had been conducted previously by other organizations or individuals.)

- 6) **Name:** Paulding Pond (MI WIC 66-172)
Location: Ontonagon County, MI
Cooperator: Ottawa National Forest
Seed Source: Island Lake, Vilas County, WI (55 pounds); Little Rice (Little Pine) Lake, Todd County MN (40 pounds); Long/Rogers Lake, Todd County, MN (24 pounds).
Summary: A total of 119 pounds of seed was planted by the Ottawa National Forest in an initial seeding attempt on this lake. (It is not known if any seeding attempts had been conducted previously by other organizations or individuals.)

- 7) **Name:** Lake Thirteen (MI WIC 31-51)
Location: Houghton County, MI
Cooperator: Ottawa National Forest
Seed Source: Little Rice (Little Pine) Lake, Todd County MN (89 pounds).
Summary: A total of 89 pounds of seed was planted by the Ottawa National Forest in the fourth seeding effort since 2007 on this small, undeveloped lake. Rice is present but in limited quantity from the previous seedings.

- 8) **Name:** Kunze Lake (MI WIC 31-34)
Location: Houghton County, MI
Cooperator: Ottawa National Forest
Seed Source: Long/Rogers Lake, Todd County, MN (35 pounds).
Summary: A total of 35 pounds of seed was planted by the Ottawa National Forest in the fourth small seeding attempt since 2007 on this undeveloped lake. Results of previous seedings has been very limited, but they totaled only 146 pounds planted.

- 9) **Name:** Lake St. Kathryn (MI WIC 36-1501)
Location: Iron County, MI
Cooperator: Ottawa National Forest
Seed Source: Little Rice (Little Pine) Lake, Todd County MN (47 pounds); Little Mound Lake, Todd County MN (47 pounds).
Summary: A total of 94 pounds of seed was planted by the Ottawa National Forest in the fourth seeding attempt since 2007 on this minimally developed lake. Rice is present but in limited quantity from the previous seedings.

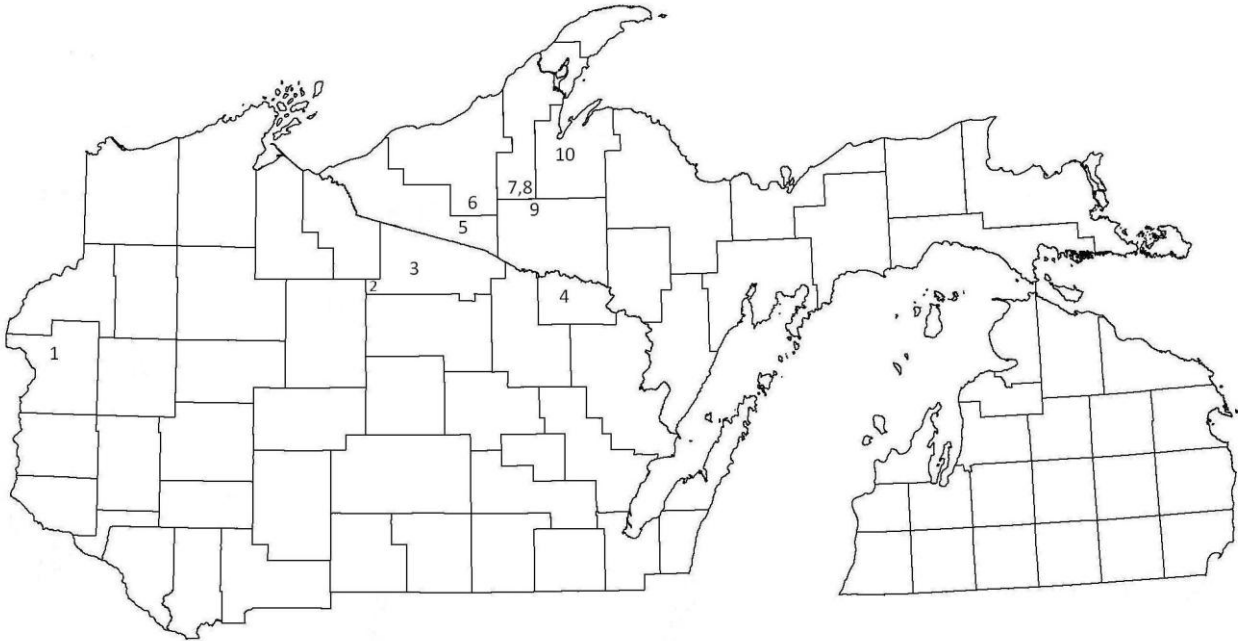
- 10) Name:** Parent Lake
Location: Baraga County, MI
Cooperator: Keweenaw Bay Indian Community
Seed Source: Mississippi River, Morrison County MN (133 pounds); Big Lake Thoroughfare, Vilas County, WI (25 pounds); Little Rice Lake, Forest County, WI (19 pounds); Island Lake, Vilas County, WI (15 pounds).
Summary: A total of 192 pounds of seed was planted by the Keweenaw Bay Indian Community in an initial seeding attempt on this lake.

RESEARCH

GLIFWC did not undertake any manoomin related research activities in 2012.

LITERATURE CITED

- David, P. 2013. Manoomin (wild rice) abundance and harvest in northern Wisconsin in 2012. Great Lakes Indian Fish and Wildlife Commission Admin. Report 13-08. 18 pp.
- Johnson, E. 1970. Preliminary notes on the historic use of wild rice. The Minnesota Archaeologist, Vol XXX, Number 2.
- Vennum, T. 1988. Wild rice and the Ojibwa people. Minnesota Historical Society Press. 357 pp.



1) Rice (Glenton) Lake, Polk County WI	2) Cedar Lake, Vilas County, WI
3) White Sand Lake, Vilas County, WI	4) Robago Lake, Florence County, WI
5) Albino Lake, Gogebic County, WI	6) Paulding Pond, Ontonagon County, MI
7) Lake Thirteen, Houghton County, MI	8) Kunze Lake, Houghton County, MI
9) Lake St. Kathryn, Iron County, MI	10) Parent Lake, Baraga County, MI

Figure 2. Waters seeded in 2012 GLIFWC cooperative ventures.