



# **Manoomin (Wild Rice) Enhancement and Research in the Ceded Territories in 2010**

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## **MANOOMIN (WILD RICE) ENHANCEMENT AND RESEARCH IN THE CEDED TERRITORIES - 2010**

### **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 2010.

### **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 immigration 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 September moon is still referred to as Manoominike Giizis (the Rice Making Moon), and the harvest season is still 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.

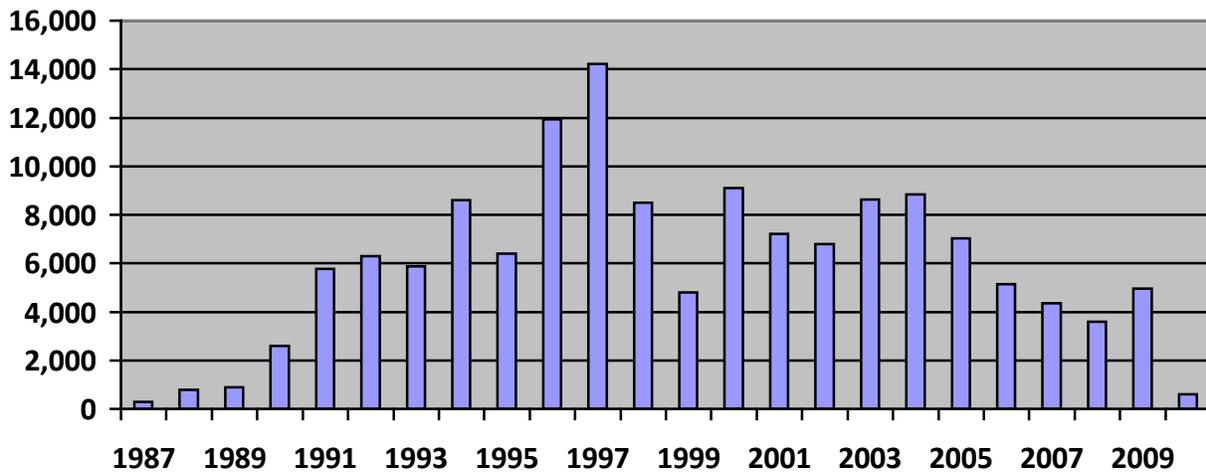


Figure 1. Pounds of manoomin seed purchased by GLIFWC and seeded by GLIFWC, its member tribes, or cooperators, 1987-2010.

## ENHANCEMENT

### Seeding Summary

In 2010 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 GLIFWC staff, member tribes, cooperators, or some combination of the three. With the assistance of these cooperators a total of 601 pounds of wild rice was seeded in 2 waters: one in Wisconsin and one 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 2010 included one GLIFWC member tribe (the Keweenaw Bay Indian Community) and the UW-Superior Lake Superior Research Institute. The contributions of both of these cooperators are summarized below.

Seed purchasing in 2010 was extremely limited by a wide-spread crop failure. Unlike 2009, which was marked by excellent crop abundance, favorable weather during the harvest season, and the highest Wisconsin harvest estimate since annual surveys were begun in 1989, 2010 was notable for poor abundance, widespread brown-spot disease, unfavorable weather, and the lowest harvest estimate since 1989 (David, 2012). As a result, GLIFWC was able to purchase only 601 pounds of seed (Figure 1). Seed purchased was harvested from 5 different waters, all in Minnesota. They were: Big Rice Lake (S. of Remer), Cass County (320 pounds); Mallard Lake, Aitkin County (120 pounds); Rice (Hesitation) Lake, Crow Wing County (55 pounds); the Mississippi River, Crow Wing County, (54 pounds), and Clark Lake, Crow Wing County (52 pounds).

## Seeding Locations

One Wisconsin and one Michigan water received 601 pounds of seed under cooperative seeding ventures in 2010. Seeding was done at a rate of approximately 50 pounds per acre, so approximately 6 acres were seeded. Figure 3 displays the locations of seeded waters. All sites were seeded in the fall. Sites seeded were:

- 1) **Name:** Allouez Bay (Wisconsin WBIC 2751220<sup>1</sup>)  
**Location:** Douglas County, WI  
**Cooperator:** UW-Superior Lake Superior Research Institute  
**Seed Source:** Big Rice Lake (Remer), Cass County (130 pounds); Mallard Lake, Aitkin County (120 pounds); Clark Lake, Crow Wing County (52 pounds).  
**Summary:** 302 pounds of seed was planted by the UW-Superior Lake Superior Research Institute in the initial seeding attempt on this historic rice location. Possible obstacles include poor water quality and/or rough fish impacts. Small experimental exclosures were erected for the 2011 growing season to better evaluate factors which may challenge re-establishment.
  
- 2) **Name:** Huron Bay  
**Location:** Baraga County, MI  
**Cooperator:** Keweenaw Bay Indian Community  
**Seed Source:** Big Rice Lake (Remer), Cass County (190 pounds); Rice (Hesitation) Lake, Crow Wing County (55 pounds); the Mississippi River, Crow Wing County (54 pounds).  
**Summary:** 299 pounds of seed was planted in this Lake Superior bay by the Keweenaw Bay Indian Community, after an initial test seeding of 101 pounds in 2009 showed positive results (Figure 2).



**Figure 2. Some results from the initial seeding of Huron Bay, 2009.**  
(Photo provided by the KBIC Natural Resources Department.)

Footnote 1: This WBIC code is for Lake Superior since Allouez Bay has not been assigned a unique WBIC code. The more specific area that was seeded is the small bay on the southeast end of the bay where Bear Creek and an unnamed creek (WBIC code 2835100) enter Allouez Bay.

## RESEARCH

The year 2010 marked the completion of a cooperative effort funded largely by the WDNR to create an inventory of Wisconsin ceded territory rice beds. This effort confirmed the location of over 300 sites which supported rice stands. The results of the inventory can be found in *Wisconsin Ceded Territory Manoomin Inventory Ver. 1.0*, (David, 2010).

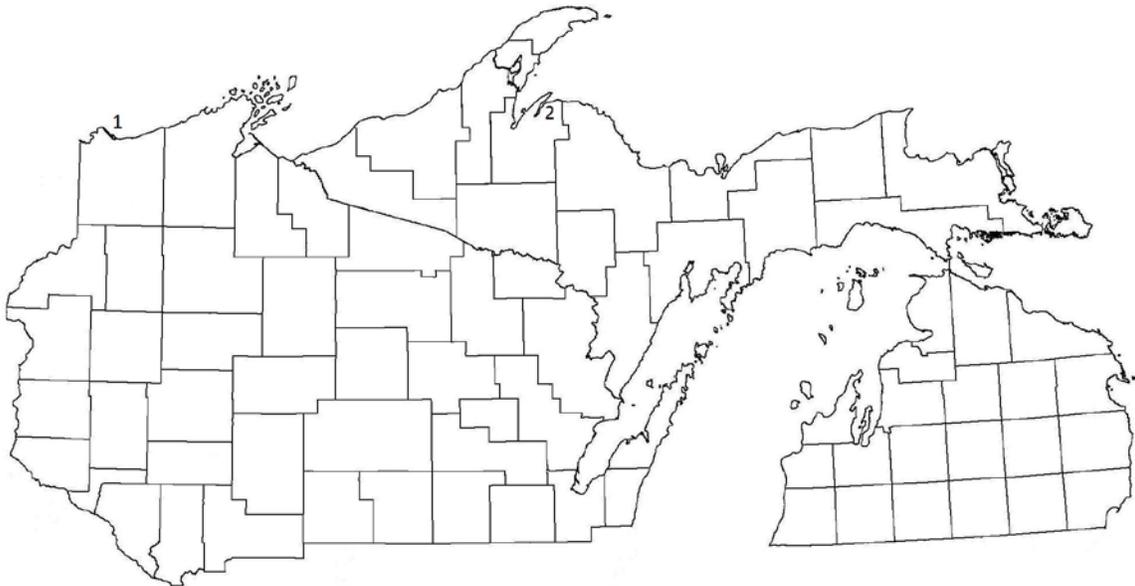
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Vennum, T. 1988. *Wild rice and the Ojibwa people*. Minnesota Historical Society Press. 357 pp.



1) Allouez Bay, Douglas County WI	2) Huron Bay, Baraga County MI
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Figure 2. Waters seeded in 2010 GLIFWC cooperative ventures.