

MANOOMIN (WILD RICE) ENHANCEMENT AND RESEARCH IN THE CEDED TERRITORIES - 2006

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 2006.

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 into the heart of wild rice range nearly 3 centuries ago (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. Wild rice can also improve water quality by tying up nutrients and by decreasing the wind action across lakes that can suspend particles and lead to water clarity and quality problems. Unfortunately, wild rice is much less abundant than it was historically.

The re-affirmation 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 Department of Natural Resources (WDNR) 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 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.

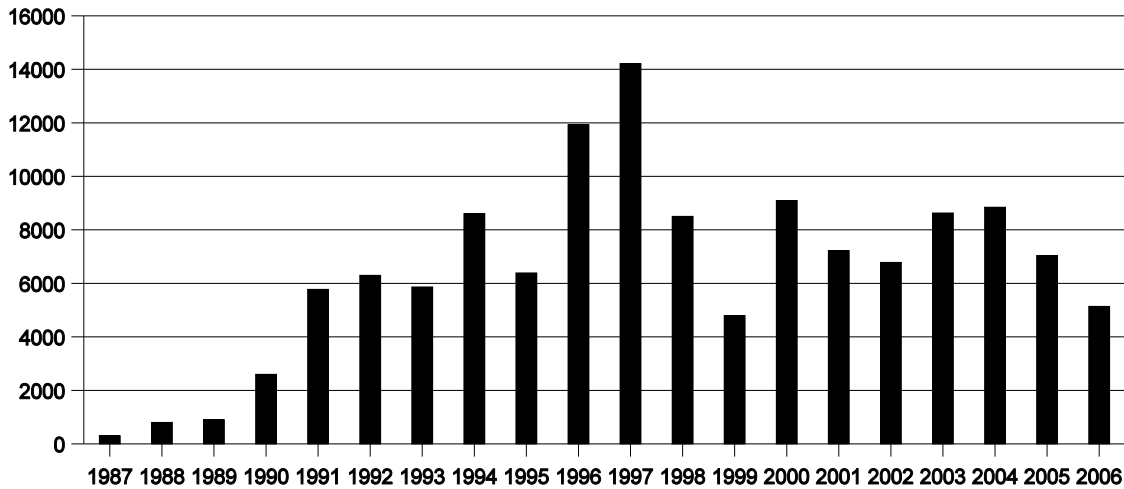


Figure 1. Pounds of manoomin purchased by GLIFWC and seeded by GLIFWC, its member tribes, or cooperators.

ENHANCEMENT

Seeding Summary

In 2006, 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 5,140 pounds of wild rice was seeded in over a dozen waters in 7 Wisconsin and 4 Michigan counties.

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 2006 included GLIFWC member tribes, including the Keweenaw Bay Indian Community, the Bay Mills Indian Community, and the Sokaogon Chippewa; USDA NRCS, and WDNR. The contributions of each of these cooperators are summarized by project below.

Seed Purchasing

Seed purchasing in 2006 took place under the influence of a relatively mixed crop in Wisconsin. Stands in the northwest part of the state were about average, while most beds in the northcentral were at poor (David 2008). As in other years, purchases from some Minnesota waters helped meet seed needs, and over 5,000 pounds of rice was secured for planting. Seed purchased was harvested from 11 waters, with the largest amounts coming from Rice Lake (Forest County, WI, 880 pounds), Mallard Lake (Aitkin County, MN, 794 pounds), Aurora Lake (Vilas County, WI, 703 pounds), and Clam Lake (Burnett County, WI, 702 pounds). All other waters supplied less than 500 pounds of seed.

Seeding Locations

Ten Wisconsin and over 4 Michigan waters received 5,140 pounds of seed under cooperative seeding ventures in 2006. Figure 2 displays the locations of seeded waters. All sites were seeded in the fall. Sites seeded were:

- 1) **Name:** Joel Marsh (WBIC 2625700)
Location: Polk County, WI
Cooperator: WDNR
Seed Source: North Fork Flowage, Burnett County, WI (131 pounds); Clam Lake, Burnett County, WI (128 pounds).
Summary: The WDNR seeded 259 pounds of seed into the new flowage on this state wildlife area. This flowage, adjacent to an older flowage where rice has been very successfully established, was also seeded in 2004 (but not 2005).
- 2) **Name:** Loon Lake Wildlife Area Flowage
Location: Barron County, WI
Cooperator: WDNR
Seed Source: North Fork Flowage, Burnett County, WI (67 pounds).
Summary: The WDNR seeded 67 pounds of seed into the largest flowage on the Loon Lake Wildlife Area in an initial seeding attempt.
- 3) **Name:** Quaderer Creek Wildlife Area (WBIC 2096500; T33N, R12W, Section 6, SE SE)
Location: Barron County, WI
Cooperator: WDNR
Seed Source: Clam Lake, Burnett County, WI (79 pounds).
Summary: The WDNR seeded 79 pounds of seed into the creek on this state wildlife area in an initial seeding attempt.

- 4) Name:** Lake Montanis (WBIC 2103200)
Location: Barron County, WI
Cooperator: WDNR
Seed Source: Clam Lake, Burnett County, WI (84 pounds).
Summary: The WDNR seeded 84 pounds of seed into this lake in an initial seeding attempt.
- 5) Name:** Manitowish River (WBIC 2324400)
Location: Iron County, WI
Cooperator: WDNR, USDA NRCS
Seed Source: Rice Lake, Forest County, WI (125 pounds).
Summary: A total of 125 pounds of rice was planted by GLIFWC on the third annual seeding effort on this river. A number of small beds are becoming established on various river bends, especially upstream of the HWY 47 crossing.
- 6) Name:** Roe Lake (WBIC 1517400)
Location: Oneida County, WI
Cooperator: WDNR
Seed Source: Pacwawong Flowage, Sawyer County, WI (112 pounds); Aurora Lake, Vilas County, WI (65 pounds); Upper Ninemile Flowage, Vilas County, WI (62 pounds); Rice Lake, Forest County, WI (60 pounds).
Summary: GLIFWC seeded 299 pounds of seed into this small, state-owned lake in the fourth annual seeding effort. A stand is well established and expanding nicely.
- 7) Name:** Bishop Lake (WBIC 392100)
Location: Forest County, WI
Cooperator: Sokaogon Chippewa Community
Seed Source: Rice Lake, Forest County, WI (300 pounds).
Summary: The Sokaogon Chippewa Community seeded 300 pounds of seed into this lake in an initial effort to determine if a lack of seed was keeping the very small, remnant bed on the northeast corner of the lake from recovering to its much larger historic size.
- 8) Name:** Moose Lake (WBIC 337600)
Location: Langlade County, WI
Cooperator: WDNR
Seed Source: Upper Ninemile Flowage, Vilas County, WI (70 pounds).
Summary: The WDNR planted 70 pounds of seed into this lake in an initial seeding attempt.

- 9) **Name:** Robago Lake (WBIC 674100)
Location: Florence County, WI
Cooperator: WDNR
Seed Source: Upper Ninemile Flowage, Vilas County, WI (100 pounds).
Summary: The WDNR planted 100 pounds of seed into this lake in an initial seeding effort.
- 10) **Name:** Halls Creek Flowage (Lake) (WBIC 652100)
Location: Florence County, WI
Cooperator: WDNR
Seed Source: Upper Ninemile Flowage, Vilas County, WI (200 pounds).
Summary: The WDNR seeded 200 pounds of seed into this flowage. This site had been unsuccessfully seeded in 2004, but is now under a different water-level management regime in an effort to propagate rice.
- 11) **Name:** Presque Isle Flowage
Location: Gogebic County, MI
Cooperator: Michigan Department of Natural Resources
Seed Source: Aurora Lake, Vilas County, WI (555 pounds); Lower Ninemile Flowage, Vilas County, WI (426 pounds).
Summary: GLIFWC seeded 981 pounds of seed into this flowage as a follow up to the 2004 effort to re-establish beds which had been started prior to a dike failure which occurred in 2002.
- 12) **Name:** Keewenaw Bay On-Reservation Sites
Location: Baraga County, MI
Cooperator: Keewenaw Bay Indian Community
Seed Source: Mallard Lake, Aitkin County, MN (759 pounds); Clam Lake, Burnett County, WI (274 pounds); Hesitation Lake, Crow Wing County, MN (241 pounds); Briggs Lake, Burnett County, WI (159 pounds); Mud Lake, Burnett County, WI (Swiss Township) (102 pounds); Rice Lake, Forest County, WI (51 pounds).
Summary: The Keewenaw Bay Indian Community seeded 1,586 pounds of rice on various on-reservation waters (without providing distribution information to GLIFWC).
- 13) **Name:** Cedar Creek Institute Michigan UP Sites
Location: Various locations in the western Upper Peninsula of Michigan
Cooperator: Keewenaw Bay Indian Community/Cedar Creek Institute
Seed Source: Briggs Lake, Burnett County, WI (171 pounds); Clam Lake, Burnett County, WI (137 pounds); Rice Lake, Forest County, WI (101 pounds); Hesitation Lake, Crow Wing County, MN (93 pounds); Mallard Lake, Aitkin County, MN (35 pounds).

Summary: The Cedar Tree Institute, in cooperation with the Keewenaw Bay Indian Community, seeded 537 pounds of rice into various off-reservation waters in the western Upper Peninsula of Michigan in a special program working with at-risk tribal youth. GLIFWC provided this seed at cost, but did not cost-share, and The Cedar Tree Institute did not provide distribution information.

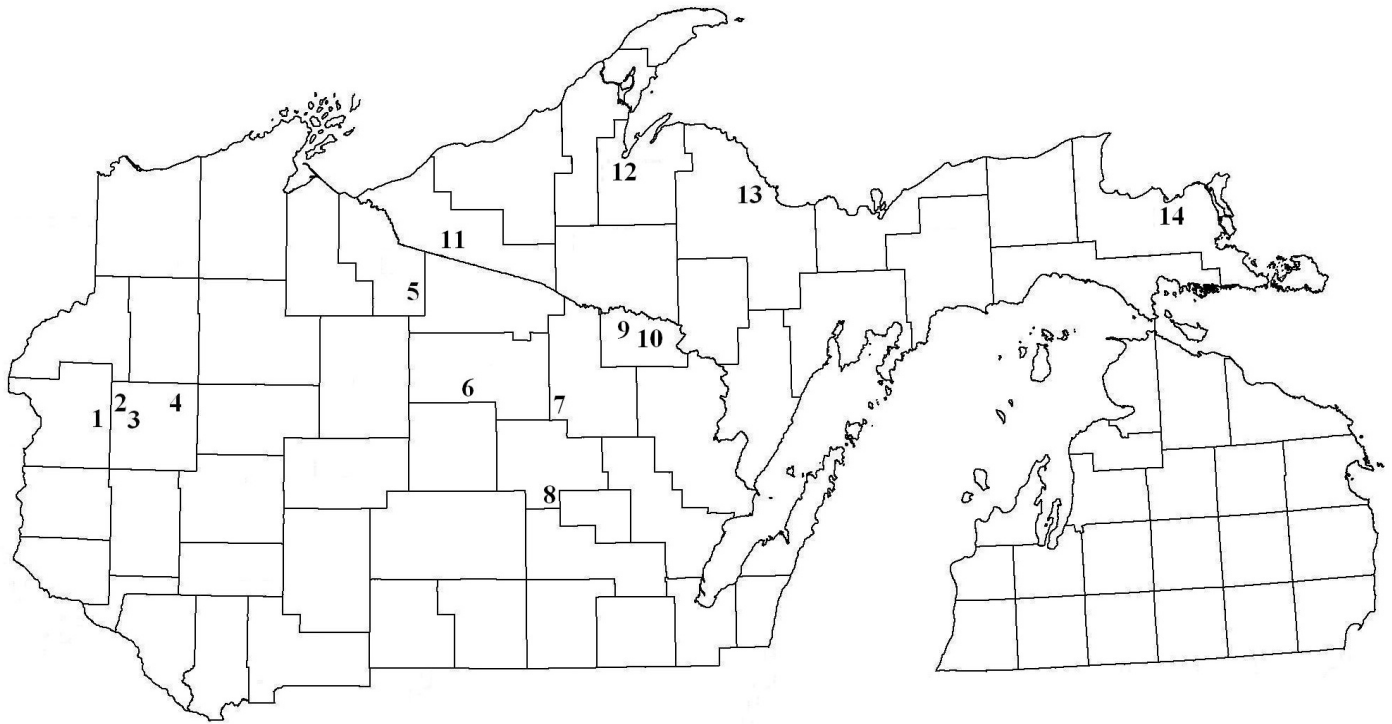
- 14) Name:** Back Bay (on Lake Superior)
Location: Chippewa County, MI
Cooperator: Bay Mills Indian Community
Seed Source: Rice Lake, Forest County, WI (243 pounds); Aurora Lake, Vilas County, WI (83 pounds); Pacwawong Flowage, Sawyer County, WI (72 pounds); Upper Ninemile Flowage, Vilas County, WI (55 pounds).
Summary: The Bay Mills Indian Community seeded 453 pounds of seed in an effort to expand beds which have been established through previous seedings at this site.

RESEARCH

No research activities were conducted in 2006.

LITERATURE CITED

- David, P.F. 2008. Manoomin (wild rice) abundance and harvest in northern Wisconsin in 2006. Great Lakes Indian Fish and Wildlife Commission Admin. Report 08-23. 15 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) Joel Marsh	8) Moose Lake
2) Loon Lake Wildlife Area Flowage	9) Robago Lake
3) Quaderer Creek	10) Hall Creek Flowage (Lake)
4) Lake Montanis	11) Presque Isle Flowage
5) Manitowish River	12) Keweenaw Bay Band On-Reservation Sites
6) Roe Lake	13) Cedar Creek Institute Sites
7) Bishop Lake	14) Back Bay on Lake Superior

Figure 2. Waters seeded in 2006 GLIFWC cooperative ventures.