

MANOOMIN (WILD RICE) ENHANCEMENT AND RESEARCH IN THE CEDED TERRITORIES - 2005

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 2005.

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 funding support from the Bureau of Indian Affairs Circle of Flight Program. Restoration efforts continue to be an important part of GLIFWC's manoomin management program.

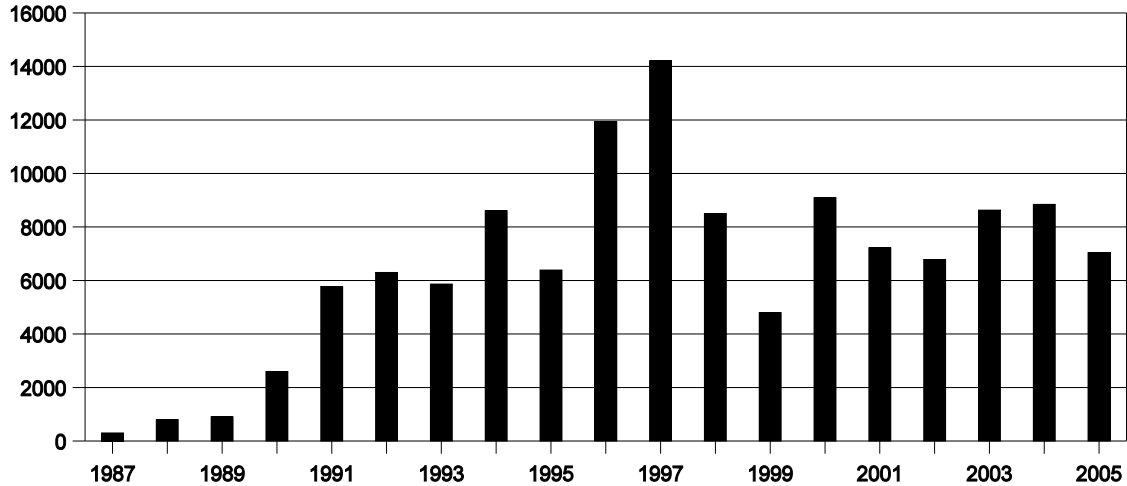


Figure 1. Pounds of manoomin purchased by GLIFWC and seeded by GLIFWC, its member tribes, or cooperators, 1987-2005.

ENHANCEMENT

Seeding Summary

In 2005, 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 7,041 pounds of wild rice was seeded in over 15 waters in 9 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 2005 included GLIFWC member tribes, including the Lac Vieux Desert Band, the Keweenaw Bay Indian Community, the Bay Mills Indian Community, the Lac du Flambeau Band and the Red Cliff Band; federal agencies including the Ottawa National Forest and the USGS-NRCS; the Wisconsin Department of Natural Resources (WDNR), the Michigan Department of Natural Resources (MiDNR) and the Wisconsin Valley Improvement Company. The contributions of each of these cooperators are summarized by project below.

Seed Purchasing

Seed purchasing in 2005 was quite successful given the relatively poor crop available for harvesters. The density of many Wisconsin beds was poor, disease prevalence appeared to be unusually high, and many ricers reported a significant amount of “ghost rice” or empty hulls in their harvest (David 2008). Despite these poor conditions GLIFWC was able to purchase over 3.5 tons of seed (Figure 1). Seed purchased was harvested from 18 waters, with the largest amounts coming from Rice Lake (Forest County, WI, 2,038 pounds), Pillager Lake (Cass County, MN, 1,570 pounds), and North Fork Flowage (Burnett County, WI, 714 pounds). All other waters supplied less than 500 pounds of seed. It is interesting to note that the bed on North Fork Flowage was itself established through the seeding program.

Seeding Locations

Ten Wisconsin and over 5 Michigan waters received 7,041 pounds of seed under cooperative seeding ventures in 2005. Figure 2 displays the locations of seeded waters. All sites were seeded in the fall. Sites seeded were:

- 1) **Name:** Schooner (Red Cliff) Bay on Lake Superior
Location: Bayfield County, WI
Cooperator: Red Cliff Band
Seed Source: North Fork Flowage, Burnett County, WI (255 pounds); St. Croix River, Douglas County, WI (48 pounds).
Summary: The Red Cliff Band seeded 303 pounds of seed into this Lake Superior bay in a follow-up to previous seedings.
- 2) **Name:** Eagle Bay on Lake Superior
Location: Bayfield County, WI
Cooperator: Red Cliff Band
Seed Source: St. Croix River, Douglas County, WI (40 pounds).
Summary: The Red Cliff Band seeded 40 pounds of seed into this Lake Superior bay in an initial seeding attempt.
- 3) **Name:** Eagle Bay Beaver Ponds
Location: Bayfield County, WI
Cooperator: Red Cliff Band
Seed Source: North Fork Flowage, Burnett County, WI (58 pounds).
Summary: The Red Cliff Band seeded 58 pounds of seed into these on-reservation beaver ponds in a follow up to previous plantings.

- 4) **Name:** Broodstock Effluent Pond
Location: Bayfield County, WI
Cooperator: Red Cliff Band
Seed Source: North Fork Flowage, Burnett County, WI (23 pounds).
Summary: The Red Cliff Band seeded 23 pounds of seed into this on-reservation ponds to enhance previous plantings.

- 5) **Name:** Manitowish River (WBIC 2324400)
Location: Iron County, WI
Cooperator: WDNR, USDA-NRCS
Seed Source: Rice Lake, Forest County, WI (165 pounds).
Summary: A total of 165 pounds of rice purchased with funding from USGS-NRCS was planted by GLIFWC on the second annual seeding effort on this river.

- 6) **Name:** Chewelah Lake Pool
Location: Vilas County, WI
Cooperator: Lac du Flambeau Band
Seed Source: Wolf River, Forest County, WI (192 pounds); Rice Lake, Forest County, WI (120 pounds); Rat River, Forest County, WI (55 pounds); Wisconsin River, Lincoln County, WI (44 pounds).
Summary: The Lac du Flambeau Band seeded 411 pounds of rice in this on-reservation water.

- 7) **Name:** Sherman Lake Pool
Location: Vilas County, WI
Cooperator: Lac du Flambeau Band
Seed Source: Rice Lake, Forest County, WI (55 pounds).
Summary: The Lac du Flambeau Band seeded 55 pounds of rice into this on-reservation water.

- 8) **Name:** Pokegama Lake
Location: Vilas County, WI
Cooperator: Lac du Flambeau Band
Seed Source: Rice Lake, Forest County, WI (50 pounds).
Summary: The Lac du Flambeau Band seeded 50 pounds of rice into a small bay on the northwest end of this on-reservation water.

- 9) **Name:** Stag Lake (WBIC 1517400)
Location: Oneida County, WI
Cooperator: WDNR
Seed Source: Rice Lake, Forest County, WI (187 pounds).
Summary: GLIFWC planted 187 pounds of seed into this small lake just downstream from the successful seeding on Roe Lake in an initial seeding attempt.
- 10) **Name:** Roe Lake (WBIC 1517400)
Location: Oneida County, WI
Cooperator: WDNR
Seed Source: Rice Lake, Forest County, WI (242 pounds).
Summary: GLIFWC seeded 242 pounds of seed into this small, largely state-owned lake in the third annual seeding effort. A small bed is established and expanding.
- 11) **Name:** Presque Isle Flowage
Location: Gogebic County, MI
Cooperator: MiDNR
Seed Source: Rice Lake, Forest County, WI (744 pounds); Kakagon Sloughs, Ashland County, WI (110 pounds); Scott Lake, Forest County, WI (63 pounds); Wisconsin River, Lincoln County, WI (53 pounds); Upper Ninemile Flowage, Vilas County, WI (30 pounds); The Big Lake Thoroughfare, Oneida County, WI, (30 pounds).
Summary: GLIFWC seeded 1,030 pounds of seed into this flowage in an effort to re-establish beds which had been started prior to a dike failure which occurred in 2002 and required a multiple-year drawdown until repairs could be completed.
- 12) **Name:** Bobcat Lake
Location: Gogebic County, MI
Cooperator: Ottawa National Forest
Seed Source: Rice Lake, Forest County, WI (47 pounds).
Summary: The Ottawa National Forest seeded 47 pounds of seed in the initial seeding on this small, undeveloped lake.
- 13) **Name:** Lac Vieux Desert
Location: Gogebic County, MI
Cooperators: Ottawa National Forest, Lac Vieux Desert Band, Wisconsin Valley Improvement Company
Seed Source: Pillager Lake, Cass County, MN (1,237 pounds); West Nelson Lake, Todd County, MN (404 pounds); North Fork Flowage, Burnett County, WI (378 pounds); Briggs Lake, Burnett County, WI (342 pounds); Carters Bridge, Burnett County, WI

(207 pounds); Rice Lake, Forest County, WI (193 pounds); Long Lake, Todd County, MN (150 pounds); Roger Lake, Crow Wing County, MN (120 pounds); Clam River Flowage, Burnett County, WI (92 pounds).

Summary: GLIFWC and the Ottawa National Forest seeded 3,123 pounds of seed into Rice Bay on Lac Vieux Desert in the forth and final seeding year of the major restoration effort on this historic rice water.

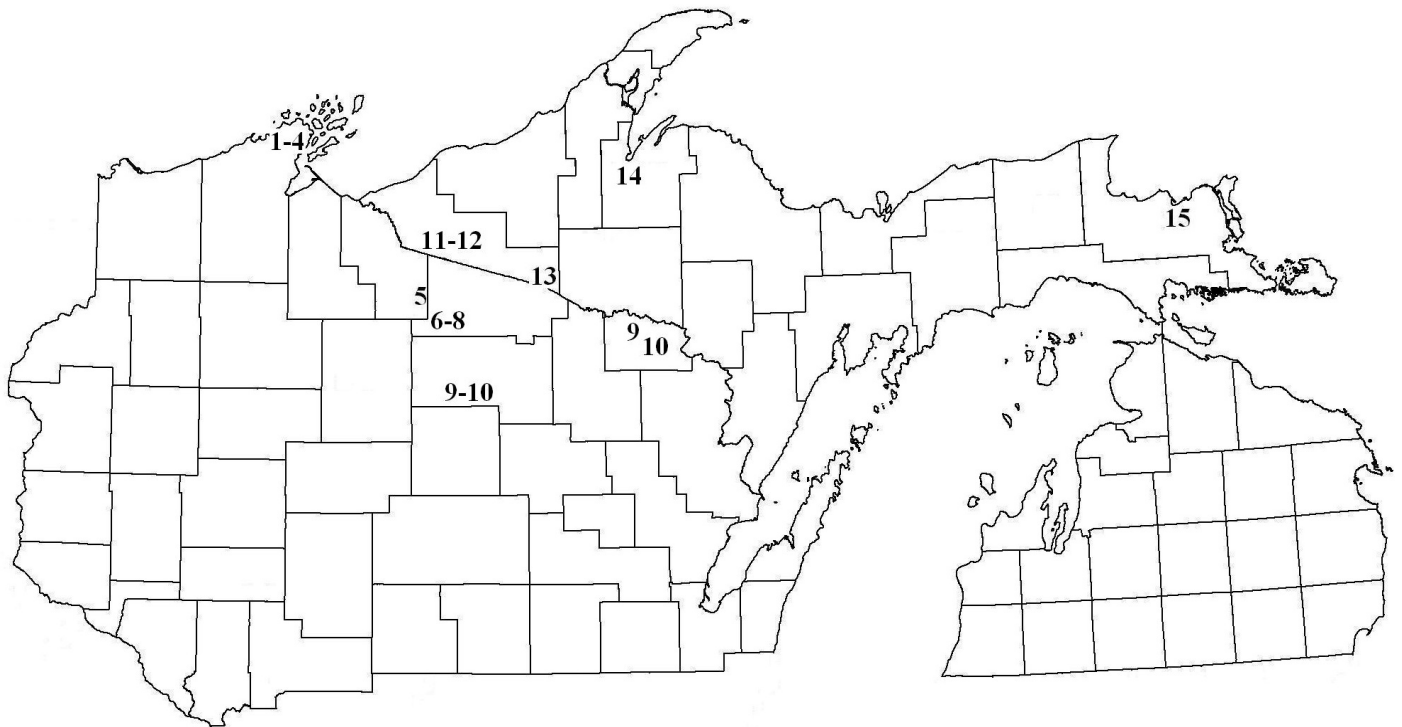
- 14) Name:** Keewenaw Bay On-Reservation Sites
Location: Baraga County, MI
Cooperator: Keewenaw Bay Indian Community
Seed Source: Scott Lake, Forest County WI or Upper Ninemile Lake, Vilas County, WI (707 pounds); Rice Lake, Forest County, WI (235 pounds); Kakagon Sloughs, Ashland County, WI (32 pounds).
Summary: The Keewenaw Bay Indian Community seeded 974 pounds of rice on various on-reservation waters (without providing distribution information to GLIFWC).
- 15) Name:** Back Bay
Location: Chippewa County, MI
Cooperator: Bay Mills Indian Community
Seed Source: Pillager Lake, Cass County, MN (333 pounds).
Summary: The Bay Mills Indian Community planted 333 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 2005.

LITERATURE CITED

- David, P.F. 2008. Manoomin (wild rice) abundance and harvest in northern Wisconsin in 2005. Great Lakes Indian Fish and Wildlife Commission Admin. Report 08-22. 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.



1-4) Red Cliff Band On-Reservation Sites: Schooner (Red Cliff) Bay, Eagle Bay, Eagle Point Beaver Ponds, Broodstock Effluent Ponds	11-12) Presque Isle Flowage and Bobcat Lake
5) Manitowish River	13) Lac Vieux Desert
6-8) Lac du Flambeau On-Reservation Sites: Chewelah Lake Pool, Sherman Lake Pool, and Pokegama Lake	14) Keweenaw Bay On-Reservation Sites
9-10) Stag and Roe Lakes	15) Back Bay on Lake Superior

Figure 2. Waters seeded in 2005 GLIFWC cooperative ventures.