

# Protecting Manoomin for the Next Seven Generations Overview Summer 2024

Aquatic plant surveys were conducted in July 2024 across Headquarters Bay on Leech Lake. The surveys were performed using a rake-tossing method, where the rake was thrown into the water, pulled back up, and the plants it collected were recorded. This approach allowed us to identify and catalog the plant species located beneath the water's surface. Each plant type found was added to the survey data. Survey points were spaced 200 meters apart and followed the same methodology as a previous survey conducted. Special care was taken to mark locations where wild rice (manoomin) was present, and we avoided entering those areas with the boat to prevent damage to the plants. Areas without surveyed plants either contained wild rice or were inaccessible due to the presence of wild rice, which we intentionally avoided.

## Preliminary Findings Overview:

- 57 survey points that had manoomin in 2005 but it was absent in 2024
- 5 survey points had manoomin in 2024 but not in 2005
- 13 points had Eurasian watermilfoil where manoomin was previously located
- 41 points altogether had Eurasian watermilfoil present this is compared to no points in 2005

These findings show a significant loss of manoomin over the course of two decades and it aligns with local sources recounting the loss of manoomin as well. They also show a significant increase in invasive species within Headquarters Bay. The loss of manoomin is not specifically due to invasive species, but it is a part of the problem that our people can work to find a solution to. Next year using mechanical methods and reseedling, we will work to address this problem and study how manoomin is able to recover within the control plots.

According to the United States Department of Agriculture wild rice reseedling guidelines: "seed production can be quite abundant with one acre of wild rice producing more than 500 lbs of seed. 30-50 pounds of seed can be used to reseed an acre of rice." (USDA) This means that if we begin reseedling efforts could result in a way to help control invasive species and also as a way to help with tribal food sovereignty.

**Included in the following pages are pictures from the project that show the loss of manoomin, the invasive species found, and the work done to teach how to care for manoomin by reseedling.**



Leanna Goose reseeding manoomin with youth from Leech Lake.





Leanna Goose teaching a reseeding workshop at Long Lake Conservation Center.



Vegetation surveys on Headquarters Bay Leech Lake. This picture was taken in an area that once held manoomin according to the previous vegetation surveys. Manoomin is now only sparsely located along the shoreline.





Rake surveys found an increased amount of Eurasian water milfoil, an invasive species.





Making manoomin packed in mud to be planted in a lake with youth from an area school