# GENPASS

Results Summary Sheet
GenPass, LLC

**Samples Sent From**: Wisconsin DNR
**Samples Received on**: **Received By:** Syndell Parks

**Send Results to:**
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Maureen Ferry (maureen.ferry@wisconsin.gov)

**Book:** Milfoil Book 11  **Page: 63**

**Sample Summary:**

| Lake Name | Location | Lat/Lon | WBIC | Putative ID | Sample ID Code | Well Position |
|---|---|---|---|---|---|---|
| Machickanee Flowage | All Over | 44.85451/ -88.06702 | 448200 | EWM/HWM | WI445-001 | 1-A |
| Machickanee Flowage | All Over | 44.85451/ -88.06702 | 448200 | EWM/HWM | WI445-002 | 1-B |
| Machickanee Flowage | All Over | 44.85451/ -88.06702 | 448200 | EWM/HWM | WI445-003 | 1-C |
| Machickanee Flowage | All Over | 44.85451/ -88.06702 | 448200 | EWM/HWM | WI445-004 | 1-D |
| Machickanee Flowage | All Over | 44.85451/ -88.06702 | 448200 | EWM/HWM | WI445-004 | 1-E |

**Plate Diagram:**

| | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A** | WI44X-001 | EWM (+) Control | | | | | | | | | | |
| **B** | WI445-002 | HWM (+) Control | | | | | | | | | | |
| **C** | WI445-003 | NWM (+) Control | | | | | | | | | | |
| **D** | WI445-004 | Restriction (-) Control | | | | | | | | | | |
| **E** | WI445-005 | | | | | | | | | | | |
| **F** | x | | | | | | | | | | | |
| **G** | Extraction (-) Control | | | | | | | | | | | |
| **H** | PCR (-) Control | | | | | | | | | | | |

*(-) Control: Well run with water to ensure no contamination of samples during processing, (+) Control: Samples with know/verified ID to ensure process is working as desired.

**Results Summary:**

| Lake Name | Sample ID Code | Analysis Type | Identification Result | Comments |
|---|---|---|---|---|
| Machickanee Flowage | WI445-001 | ITS RA | Hybrid Watermilfoil (*Myriophyllum spicatum* x *M. sibiricum*) | NA |
| Machickanee Flowage | WI445-002 | ITS RA | Hybrid Watermilfoil (*Myriophyllum spicatum* x *M. sibiricum*) | NA |
| Machickanee Flowage | WI445-003 | ITS RA | Hybrid Watermilfoil (*Myriophyllum spicatum* x *M. sibiricum*) | NA |
| Machickanee Flowage | WI445-004 | ITS RA | Hybrid Watermilfoil (*Myriophyllum spicatum* x *M. sibiricum*) | NA |
| Machickanee Flowage | WI445-004 | ITS RA | Hybrid Watermilfoil (*Myriophyllum spicatum* x *M. sibiricum*) | |

*ITS RA: ITS gene Rapid Assay; **SS-ITS: Straight Sequencing of the ITS gene; **SS-trnLF- Straight sequencing of the trnLF gene.

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**Additional Notes:** NA

*DNA extractions were performed using the Qiagen DNeasy Plant mini kit and associated protocol (CAT# 69106). Samples processed were identified using an Internal Transcribed Spacer (ITS) rapid assay.

For more information on the downstream analysis, see:

Thum R.A., Lennon, J.T., Connor, J., Smagula, A.P. 2006. A DNA fingerprinting approach for distinguishing native and non-native milfoils. Lake and Reservoir Management. 22(1):1-6.

Sturtevant, A.P., Hatley, N., Pullman, G.D., Sheick, R., Shorez, D., Bordine, A., Mausolf, R., Lewis, A., Sutter, R., Mortimer, A. 2009. Molecular characterization of Eurasian watermilfoil, northern watermilfoil, and the invasive interspecific hybrid in Michigan lakes. Journal of Aquatic Plant Management. 47:128-135.

Grafe, S.F., Boutin, C., Pick, F.R., Bull, R.D. 2015. A PCR-RFLP method to detect hybridization between the invasive Eurasian watermilfoil (Mryiophllum spicatum) and the native northern watermilfoil (Myriophyllum sibiricum), and its application in Ontario lakes. Botany. 93:117-121.

 ** DNA extractions were performed using the Qiagen DNeasy Plant mini kit and associated protocol (CAT# 69106). Samples processed were identified by analysis of either the Internal Transcribed Spacer (ITS) gene or the trnLF gene.

For more information on the downstream analysis, see:

Moody, M. L., Les, D. H. (2002). Evidence of hybridity in invasive watermilfoil (Myriophyllum) populations. Proceedings of the National Academy of Sciences of the United States of America, 99(23), 14867–71. http://doi.org/10.1073/pnas.172391499

Moody, M. L., & Les, D. H. (2007). Geographic distribution and genotypic composition of invasive hybrid watermilfoil (Myriophyllum spicatum x M. sibiricum) populations in North America. Biological Invasions, 9(5), 559–570. http://doi.org/10.1007/s10530-006-9058-9