GENPASS

Results Summary Sheet
GenPass, LLC

Samples Sent From: Aquatic Biologists
Samples Received on: 8/10/17
Received By: Syndell Parks

Send Results to:
Matt Holmes (mholmes@aquaticbiologists.com)
Mary Gansberg (mary.gansberg@wisconsin.gov)

Book: Milfoil Book 11
Page: 72
Sample Summary:

Lake Name	Location	Lat/Lon	WBIC	Putative ID	Sample ID Code	Well Position
Wolf	Boat Launch Bay	43.811008/ -88.207365	NA	EWM	WI252-003	1E
Wolf	Beach	43.862492/ -88.203691	NA	EWM	WI252-004	1F
Wolf	North Bay	43.868151/ -88.12175	NA	EWM	WI252-005	1G

Plate Diagram:

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
A	X	X	X	X	X	X	NWM (+) Control					
B	X	X	X	X	Extraction (-) Control	X	Restriction (-) Control					
C	X	X	X	X	X	X						
D	X	Extraction (-) Control	X	X	X	Extraction (-) Control						
E	WI252-003	X	X	X	X	PCR (-) Control						
F	WI252-004	X	X	X	X	EWM (+) Control						
G	WI252-005	X	X	X	X	M.Q (+) Control						
H	X	X	Extraction (-) Control	X	X	HWM (+) 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
Wolf	WI252-003	ITS-RA	Eurasian Watermilfoil (*Myriophyllum spicatum*)	NA
Wolf	WI252-004	ITS-RA	Eurasian Watermilfoil (*Myriophyllum spicatum*)	NA
Wolf	WI252-005	ITS-RA	Eurasian Watermilfoil (*Myriophyllum spicatum*)	NA

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

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