



Summary of DNA Data for Watermilfoil
Grand Valley State University's Robert B. Annis Water Resources Institute

Company/Entity	Onterra and WI DNR
Total Samples Processed	14
Cost per Sample	
Set up Fee (if applicable)	
Total Cost	

ATTN:

Send Invoice to:

Ryan Raab
Bureau of Watershed management
WIDNR
101 South Webster St.
P.O. Box 7921
Madison, WI 53707

Send Results to:

Michelle Nault (michelle.nault@wisconsin.gov)
Brenton Butterfield (bbutterfield@onterra-eco.com)
Eddie Heath (eheath@onterra-eco.com)
Scott Vanegeren (Scott.VanEgeren@wisconsin.gov)
Maureen Ferry (Maureen.Ferry@wisconsin.gov)
Scott Provost (Scott.Provost@wisconsin.gov)

Result Details (By Lake):

Lake Name: Wausau

Date Received: 8/21/15
Number of Samples Sent: 1
Number of Samples Processed: 1
Comments: See additional documents for additional lake and sample information

Lake Name: Keyes

Date Received: 8/21/15
Number of Samples Sent: 1
Number of Samples Processed: 1
Comments: See additional documents for additional lake and sample information

Lake Name: Lundgren

Date Received: 8/21/15
Number of Samples Sent: 1
Number of Samples Processed: 1
Comments: See additional documents for additional lake and sample information

Lake Name: Chute Pond

Date Received: 8/21/15
Number of Samples Sent: 1
Number of Samples Processed: 1
Comments: See additional documents for additional lake and sample information

Lake Name: Bass

Date Received: 8/21/15
Number of Samples Sent: 1
Number of Samples Processed: 1
Comments: See additional documents for additional lake and sample information

Lake Name: Little Quinnesec

Date Received: 8/21/15
Number of Samples Sent: 2
Number of Samples Processed: 2
Comments: See additional documents for additional lake and sample information



Lake Name: Wabikon

Date Received: 8/21/15

Number of Samples Sent: 1

Number of Samples Processed: 1

Comments: See additional documents for additional lake and sample information

Lake Name: Bass (Boom)

Date Received: 8/21/15

Number of Samples Sent: 1

Number of Samples Processed: 1

Comments: See additional documents for additional lake and sample information

Genetic IDs:

Area/site	Sample #	Putative ID	ID
Wausau/#MS1	1	EWM	Eurasian Watermilfoil (<i>Myriophyllum spicatum</i>)
Keyes/ #MS3	2	EWM	Hybrid Watermilfoil (<i>Myriophyllum spicatum</i> x <i>M. sibiricum</i>)
Lundgren/#BL1	3	EWM	Eurasian Watermilfoil (<i>Myriophyllum spicatum</i>)
Chute Pond/#510	4	HWM?	Eurasian Watermilfoil (<i>Myriophyllum spicatum</i>)
Bass	5	NWM?	Northern Watermilfoil (<i>Myriophyllum sibiricum</i>)
Lucerne/#BL1	6	NWM	Northern Watermilfoil (<i>Myriophyllum sibiricum</i>)
Bear	7	NWM	Northern Watermilfoil (<i>Myriophyllum sibiricum</i>)
Little Quinnesec	8-9	EWM	Hybrid Watermilfoil (<i>Myriophyllum spicatum</i> x <i>M. sibiricum</i>)
Wabikon	10	NWM	Northern Watermilfoil (<i>Myriophyllum sibiricum</i>)
Bass (Boom)	11	NWM	Northern Watermilfoil (<i>Myriophyllum sibiricum</i>)

Identified by:  ID verified by: 

Lake Name: Silver WBIC:107900

Date Received: 8/21/15

Number of Samples Sent: 3

Number of Samples Processed: 3

Comments: See additional documents for additional lake and sample information. The order of the three samples were verified to ensure that the putative ID was placed with the correct corresponding genetic ID.

Genetic IDs:

Area/site	Sample #	Putative ID	ID
NA	1	EWM	Northern Watermilfoil (<i>Myriophyllum sibiricum</i>)
NA	2	NWM	Hybrid Watermilfoil (<i>Myriophyllum spicatum</i> x <i>M. sibiricum</i>)
NA	3	HWM	Northern Watermilfoil (<i>Myriophyllum sibiricum</i>)

Identified by:  ID verified by: 

MILFOIL CHAIN OF CUSTODY RECORD

Received from
Name (print):
Organization:

Street Address:

City, State Zip:

Phone:

Email:

Released to
Ryan Thum, Assistant Professor
Grand Valley State University
Annis Water Resources Institute
740 West Shoreline Dr.
Muskegon, MI 49441
Phones: 616-331-3989 (office); 616-331-8797 (lab)
Email: thumr@gvsu.edu

To be filled in by sender

To be filled in by Thum lab

Date Sampled	Lake Name (include State and County)	Location within waterbody	Latitude (DD)	Longitude (DD)	Putative ID	No. stems to process	Date Rec'd	Pop ID Assigned to samples	Sample condition & notes
8/11/15	Wauseon-Marathon	# MS1			EWM	1	8/11/15	WI407-001	
8/5/15	Keyes-Florence	# MS3			EWM	1		WI408-001	
7/29/15	Lundgren-Marinette	# BL1			EWM	1		WI409-001	
?	Chute Pond-Oconto	# 510			HNW?	1		WI304-013	
7/16/15	Bass-Oconto		45.27290	-88.62323	NWM?	1		WI314-002	Poor Condition
7/30/15	Lucerne-Forest	# BL1			NWM	1		WI410-001	Questionable Condition
8/3/15	Bear-Forest				NWM	1		WI411-001	
8/4/15	Little Quinsec - Marinette	# MS1+MS2			EWM	2		WI410-001, WI413-001	UNKNOWN WHICH IS WHICH
7/28/15	Woban-Forest				NWM	1		WI413-001	
8/12/15	Bass(Boom) - Oneida				NWM?	1		WI414-001	

Relinquished by: (sign/date) Miguelle Joubert 8/17/15

Received by: (sign/date)

Plants
leaves
stems
which
are
the
same

Bill To:
 Name(print): Ryan Raab, Bureau of Watershed Management
 Organization: WI Department of Natural Resources
 Address: 101 S Webster St.
 PO Box 7921
 Madison, WI 53707

MILFOIL CHAIN OF CUSTODY RECORD

Released to
 Ryan Thum, Assistant Professor
 616-331-3989 (office)
 Phones: 616-331-8797 (lab)
 Email: thumr@gvsu.edu
 Muskegon, MI 49441
 740 West Shoreline Dr.
 Annis Water Resources Institute
 Grand Valley State University

Received From:
 Name(print): Eddie Heath & Brenton Butterfield
 Organization: Onterra, LLC
 Address: 815 Prosper Rd
 De Pere, WI 54115
 Email: eheath@onterra-eco.com;
 bbutterfield@onterra-eco.com
 Phone: 920-338-8860

Send Results To:
 Name (print): Brenton Butterfield
 Email: bbutterfield@onterra-eco.com

Name (print): Eddie Heath
 Email: eheath@onterra-eco.com

Name (print): Michelle Nault
 Email: michelle.nault@wisconsin.gov

Name (print):
 Email:

To be filled in by sender

To be filled in by sender				To be filled in by Thum lab					
Date Sampled	Lake Name	Location within waterbody	Latitude (DD)	Longitude (DD)	Putative ID	No. stems to process	Date Rec'd	Pop ID Assigned to samples	Sample condition & notes
8/12/15	Silver Lake Wausseau Co.	107900	44.057338	-89.232334	ENM	1	8.21.15	05197 -113	
8/12/15	Silver Lake Wausseau Co.	107900	44.047321	-89.220242	HWM	1	↓	-114	
8/12/15	Silver Lake Wausseau Co.	107900	44.053234	-89.237722	NWM	1	↓	-116	

*arrived
8/21/15*

***Fast track identification results (Y/N): N For additional cost results can be guaranteed within 3 business days.

Relinquished by: (sign/date) Eddie Heath

Received by: (sign/date) Michelle Nault 8.21.15

Lake Information

Name: Bass

County: Oconto

WBIC: _____

Date Collected: 7/16/15

Lake coordinates: _____

Indicate Decimal Degrees Lat/Long, UTM etc.

Sample Information

ID: NWM?

Sample Location: Point # _____

45.27290

- 88.62373

E.g. Lat/long, east basin, lakewide

Reason for collection: _____

Collected by: _____

Email: _____

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want

Comments: _____

OF SAMPLES TO TEST:

Contact Information

Name: M. Nault

Organization: WIDNR or OTHER

Phone: _____

Email: ↓

CC: michelle.nault@wisconsin.gov

Lake Information

Name: Chute Pond

County: Oconto

WBIC: _____

Date Collected: _____

Lake coordinates: _____

Indicate Decimal Degrees Lat/Long, UTM etc.

Sample Information

ID: HWM?

Sample Location: Point # _____

510

E.g. Lat/long, east basin, lakewide

Reason for collection: _____

Collected by: Brenda Nordin

Email: brenda.nordin@wi.gov

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want

Comments: _____

OF SAMPLES TO TEST:

Contact Information

Name: M. Nault/B. Nordin

Organization: WIDNR or OTHER

Phone: _____

Email: brenda.nordin@wi.gov

CC: michelle.nault@wisconsin.gov

Lake Information

Name: Lundgren

County: Marinette

WBIC: _____

Date Collected: 7/29/15

Lake coordinates: _____

Indicate Decimal Degrees Lat/Long, UTM etc.

Sample Information

ID: EWM

Sample Location: Point # _____

BLI

E.g. Lat/long, east basin, lakewide

Reason for collection: _____

Collected by: M. Nault

Email: _____

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want

Comments: _____

OF SAMPLES TO TEST:

Contact Information

Name: M. Nault

Organization: WIDNR or OTHER

Phone: _____

Email: ↓

CC: michelle.nault@wisconsin.gov

Lake Information

Name: Keyes

County: Florence

WBIC: _____

Date Collected: 8/5/15

Lake coordinates: _____

Indicate Decimal Degrees Lat/Long, UTM etc.

Sample Information

ID: EWM

Sample Location: Point # _____

M53

E.g. Lat/long, east basin, lakewide

Reason for collection: _____

Collected by: M. Nault

Email: Michelle.nault@wi.gov

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want

Comments: _____

OF SAMPLES TO TEST:

Contact Information

Name: M. Nault

Organization: WIDNR or OTHER

Phone: _____

Email: ↓

CC: michelle.nault@wisconsin.gov

Lake Information
 Name: Little Guinness
 County: Maine
 WBIC: _____
 Date Collected: 8/4/15
 Lake coordinates: _____

Indicate Decimal Degrees, Lat/Long, UTM etc.
 Sample Information
 ID: EWM
 Sample Location: Point # MS1
MS2

E.g. Lat/long, east basin, lakewide
 Reason for collection: _____

Collected by: M. Nault
 Email: _____

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want
 Comments: _____

OF SAMPLES TO TEST: 2

Contact Information
 Name: M. Nault
 Organization: WIDNR or OTHER
 Phone: _____
 Email: ↓
 CC: michelle.nault@wisconsin.gov

Lake Information
 Name: Bass (Room Chasin)
 County: Oneida
 WBIC: _____
 Date Collected: 8/12/15
 Lake coordinates: _____

Indicate Decimal Degrees, Lat/Long, UTM etc.
 Sample Information
 ID: NWM?
 Sample Location: Point # _____

E.g. Lat/long, east basin, lakewide
 Reason for collection: _____

Collected by: M. Nault
 Email: _____

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want
 Comments: _____

OF SAMPLES TO TEST: 1

Contact Information
 Name: M. Nault
 Organization: WIDNR or OTHER
 Phone: _____
 Email: ↓
 CC: michelle.nault@wisconsin.gov

Lake Information
 Name: Wabikon
 County: Forest
 WBIC: _____
 Date Collected: 7/28/15
 Lake coordinates: _____

Indicate Decimal Degrees, Lat/Long, UTM etc.
 Sample Information
 ID: NWM
 Sample Location: Point # _____

E.g. Lat/long, east basin, lakewide
 Reason for collection: _____

Collected by: M. Nault
 Email: _____

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want
 Comments: _____

OF SAMPLES TO TEST: 1

Contact Information
 Name: M. Nault
 Organization: WIDNR or OTHER
 Phone: _____
 Email: ↓
 CC: michelle.nault@wisconsin.gov

Lake Information
 Name: Lucerne
 County: Forest
 WBIC: _____
 Date Collected: 7/30/15
 Lake coordinates: _____

Indicate Decimal Degrees, Lat/Long, UTM etc.
 Sample Information
 ID: NWM
 Sample Location: Point # BL1

E.g. Lat/long, east basin, lakewide
 Reason for collection: _____

Collected by: M. Nault
 Email: _____

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want
 Comments: _____

OF SAMPLES TO TEST: 1

Contact Information
 Name: M. Nault
 Organization: WIDNR or OTHER
 Phone: _____
 Email: ↓
 CC: michelle.nault@wisconsin.gov

Lake Information

Name: Nausau

County: Marathon

WBIC: _____

Date Collected: 8/11/15

Lake coordinates: _____

Indicate Decimal Degrees, Lat/Long, UTM etc.

Sample Information

ID: ENNM

Sample Location: Point # MS1

E.g. Lat/long, east basin, lakewide

Reason for collection: _____

Collected by: M. Nault

Email: Michelle.nault@wi.gov

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want

Comments: _____

OF SAMPLES TO TEST:

Contact Information

Name: Michelle Nault

Organization: WIDNR or OTHER

Phone: 608-513-4587

Email: _____

CC: Michelle.nault@wisconsin.gov

Lake Information

Name: Bear

County: Forest

WBIC: _____

Date Collected: 8/3/15

Lake coordinates: _____

Indicate Decimal Degrees, Lat/Long, UTM etc.

Sample Information

ID: NWMM

Sample Location: Point # _____

E.g. Lat/long, east basin, lakewide

Reason for collection: _____

Collected by: M. Nault

Email: _____

E.g. Baseline survey, recent milfoil increase, plant looks weird, etc., include as much detail as you want

Comments: _____

OF SAMPLES TO TEST:

Contact Information

Name: M. Nault

Organization: WIDNR or OTHER

Phone: _____

Email: ↓

CC: Michelle.nault@wisconsin.gov

Silver Lake, Waushara Co.
8/12/15 EWM 107900
44.057338 -89.232334
Coll. Eddie Heath

Silver Lake, Waushara Co.
8/12/15 EWM 107900
44.057338 -89.232334
Coll. Eddie Heath

Silver Lake, Waushara Co.
8/12/15 NNM 107900
44.053234 -89.237722
Coll. Eddie Heath