



NOAA Data Sharing



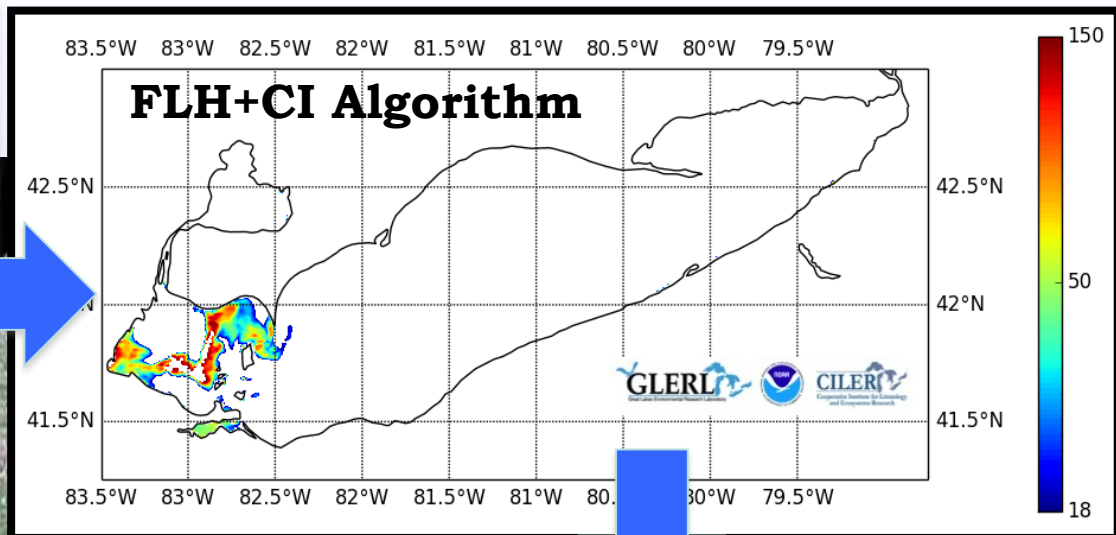
Lake Superior Environmental Monitoring Collaborative

November 20, 2014

Duluth, MN

**Steve Ruberg
NOAA
Great Lakes Environmental Research Lab
Ann Arbor, MI**

Harmful Algal Bloom Tracking





Western Lake Erie HABs Map



MTRI Developmental Harmful and Nuisance Algal Bloom Map

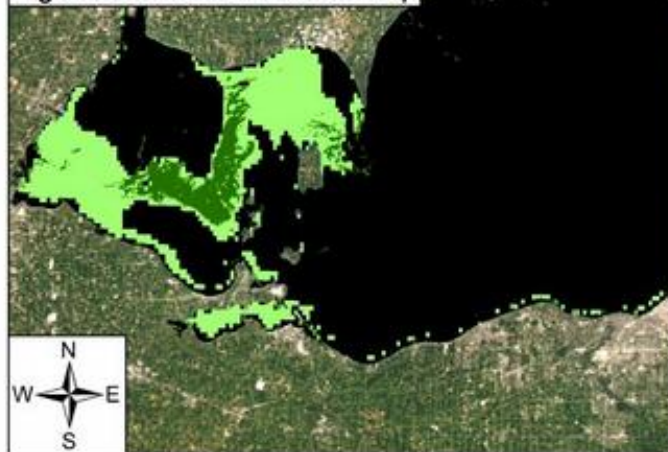
MichiganTech
Research Institute
www.mtri.org



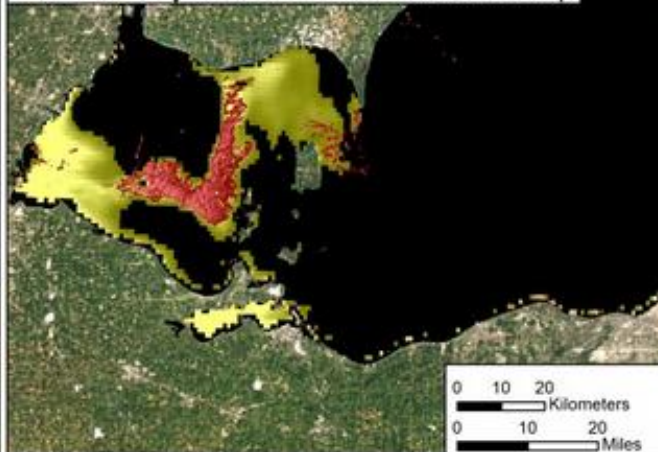
September 29, 2014
Lake Erie



Algal and Sediment Extent Map



Water Quality & Public Health Concern Map



MODIS True Color



Document Path: z:\project\HABs_GLERL\Working\Drawings\MODIS_Erie_Habs_Sep09_2014.mxd

Area		
	Surface Algal Mat Area:	307.2 Sq Km.
	High Algal Concentration Area: (Chlorophyll > 20 µg/L)	1126 Sq Km.
	Heavy Sediment Plume Area:	N/A Sq Km.
	Higher Concern Possible HAB Related Public Health Concern: (microcystin assumed > 20 µg/L based on surface scum analysis and historical observations, Water Temp > 18°C)	
	Lower Concern Detected Area:	307.2 Sq Km.
	Higher Concern Possible HAB Related Water Quality Concern: (Chlorophyll > 20 µg/L, Water Temp > 18°C)	
	Lower Concern Detected Area:	1126 Sq Km.



NOAA Great Lakes Coastwatch



What's New

New

About

AVHRR Imagery

GLSEA

Contour Maps

GOES Imagery

RADARSAT

MODIS Imagery

Ocean Color

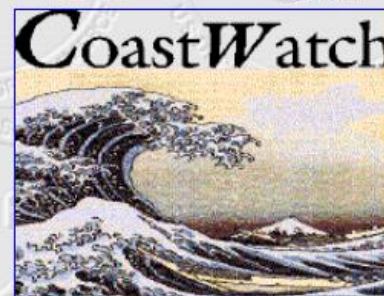
Image Products

In Situ Data

GLCFS

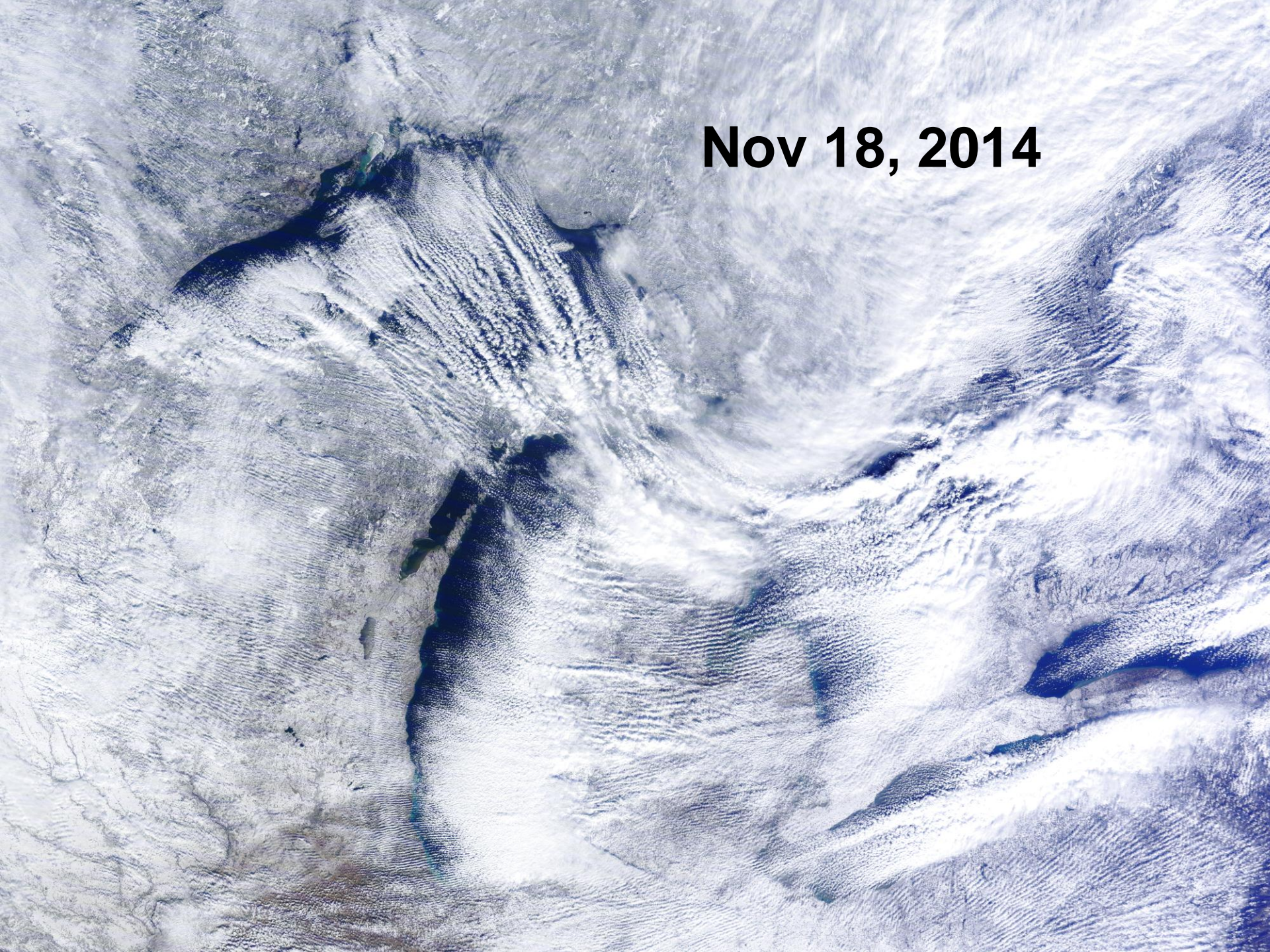
Statistics

Welcome to the NOAA CoastWatch Great Lakes Node



coastwatch.noaa.gov

Nov 18, 2014

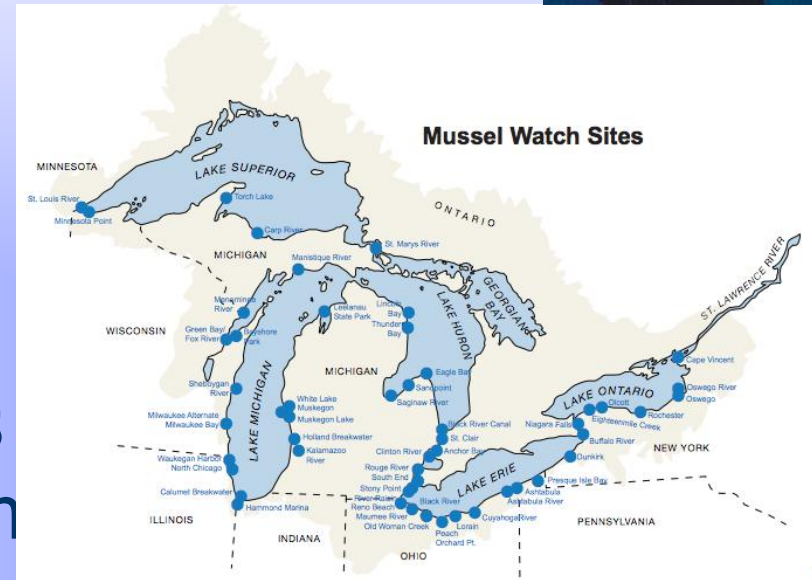




Great Lakes Mussel Watch



- NOAA Program – GLRI funded in Great Lakes
- Status and trends of over 150 contaminants in mussels
- Tracks effectiveness of pollution prevention legislation and remediation
- Mussel Watch Contaminants egisws02.nos.noaa.gov/nsant/index.html#
- Ed.Johnson@noaa.gov

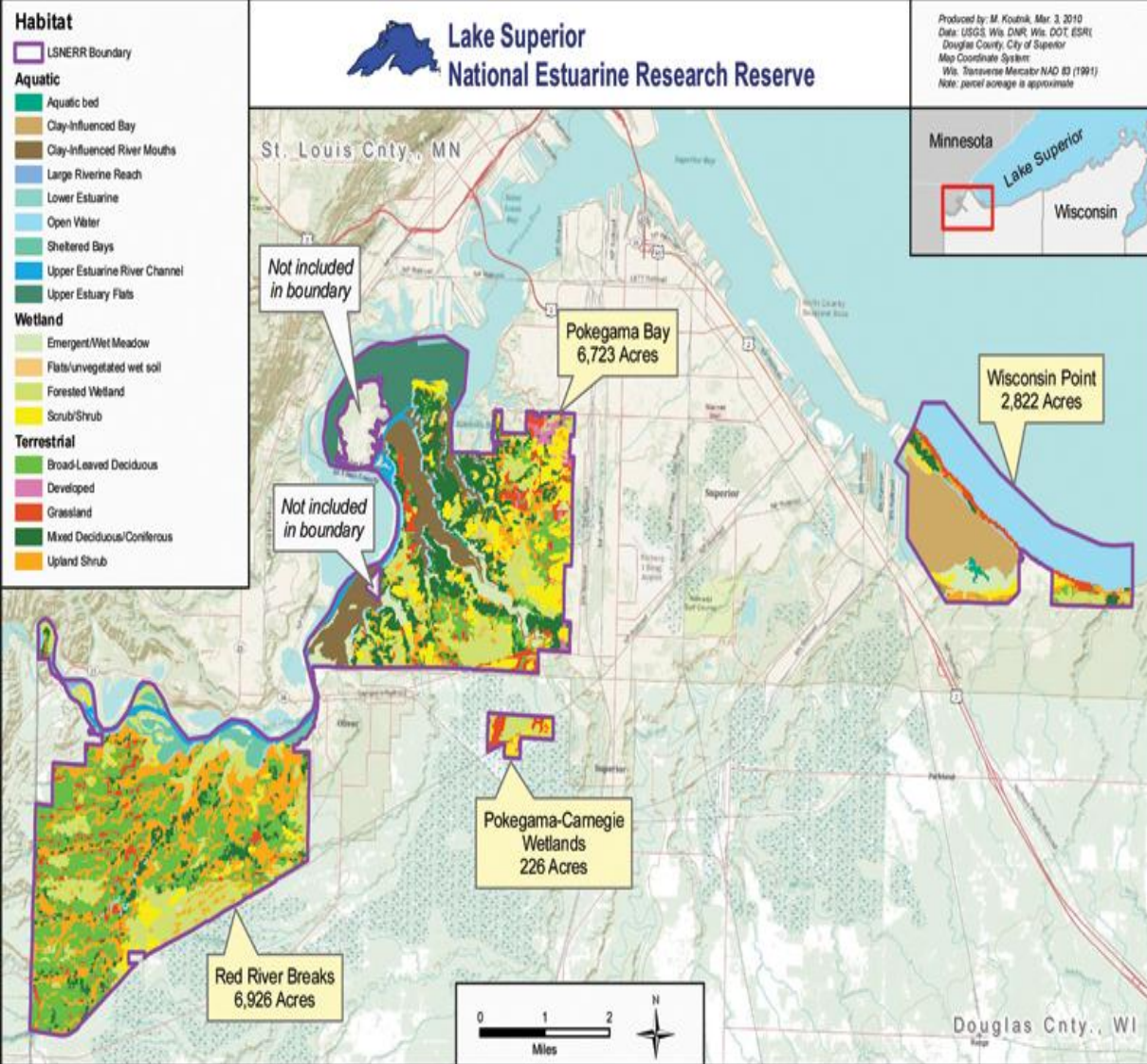


Research Reserve System

More than 1.3 million coastal and estuarine acres in 28 reserves located in 22 states and Puerto Rico

4 Part mission


1. Long-term research
2. Environmental monitoring
3. Education
4. Stewardship.



nerrs.noaa.gov


[Click on the glider symbols for additional information.]


IOOS Glider Manager





Glidors

Turn all gliders off

 Sea gliders

 Slocum gliders

 Spray gliders

 Unknown gliders


Filter by time


2012


Filter by provider


Models

Turn all models off


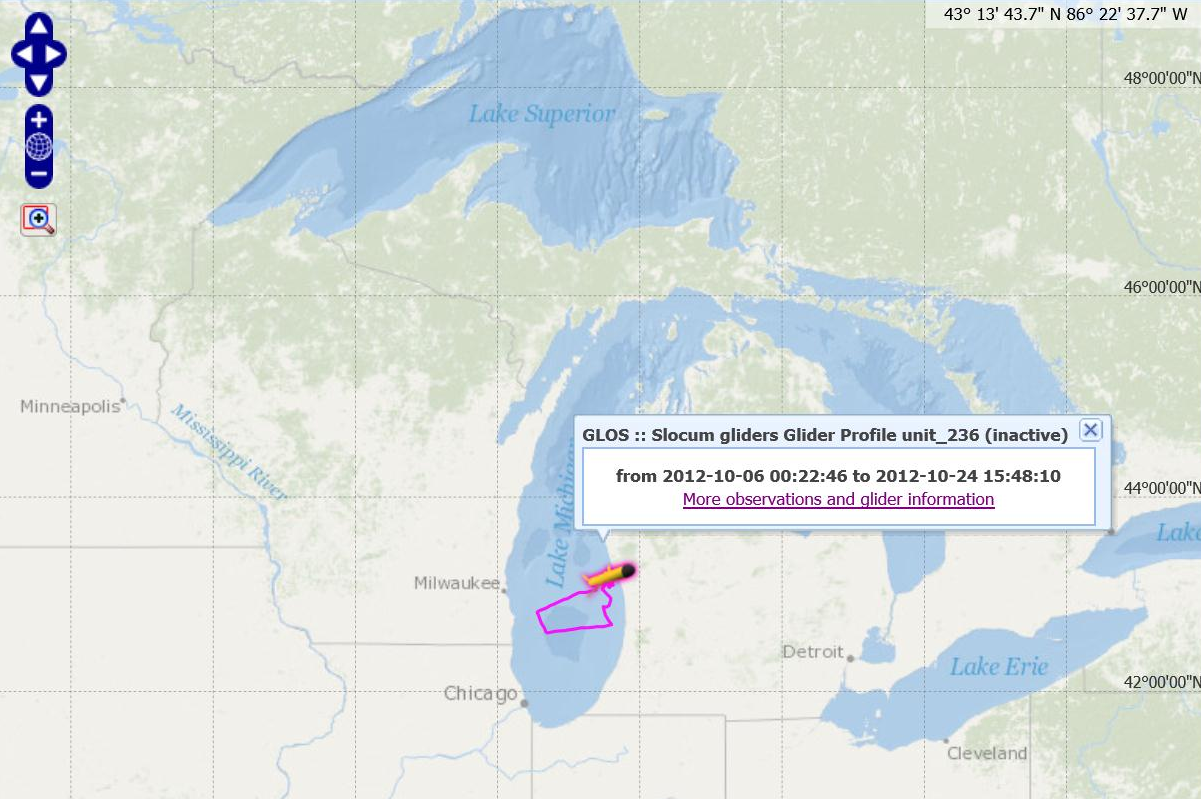
GFS winds 

NCOM currents (S Atlantic) 

WWIII wave height 

NCOM water temp (S Atlantic) 

IOOS Glider Explorer

43° 13' 43.7" N 86° 22' 37.7" W

48°00'00"N

46°00'00"N

44°00'00"N



42°00'00"N


GLOS :: Slocum gliders Glider Profile unit_236 (inactive)


from 2012-10-06 00:22:46 to 2012-10-24 15:48:10


[More observations and glider information](#)


Legends

 [Bookmark](#)  [Help](#)

 **Sea gliders**
0 glider(s) fetched

 **Slocum gliders**
40 glider(s) fetched
active 1
inactive 39
by provider
cmar 2
rutgers 27
udel 2
gerg 1
glos 1
twrc 2
UAF 2
smast 3
latest report
2013-08-03

 **Spray gliders**
20 glider(s) fetched
active 0
inactive 20
by provider
scripps 20
latest report
2013-03-15 16:39 UTC

 **Unknown gliders**
0 glider(s) fetched

[Click on the glider symbols for additional information.]

IOOS Glider Manager

Gliders

- Turn all gliders off
- Sea gliders
- Slocum gliders
- Spray gliders
- Unknown gliders

Filter by time

2014

Filter by provider

Models

- Turn all models off
- GFS winds
- NCOM currents (S Atlantic)
- WWIII wave height
- NCOM water temp (S Atlantic)

IOOS Glider Explorer

University of Massachusetts Dartmouth :: Slocum gliders
blue-435

from 2014-11-06 to 2014-11-20

blue: 2014-11-06 15:51 - 2014-11-20 08:44 GMT [lvl2,A]

sea_water_temperature (degreesC)

Legends

- ☆ Bookmark
- 🔍 Help
- 🚢 Sea gliders
0 glider(s) fetched
- 🚢 Slocum gliders
35 glider(s) fetched
active 3
- 🚢 Unknown gliders

A Global Voice for the Great Lakes

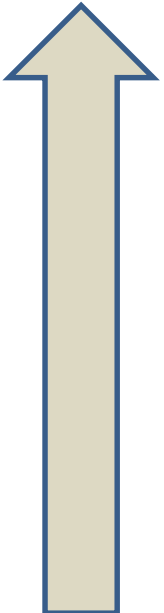


LARGER SCALES OF DATA
INTEGRATION

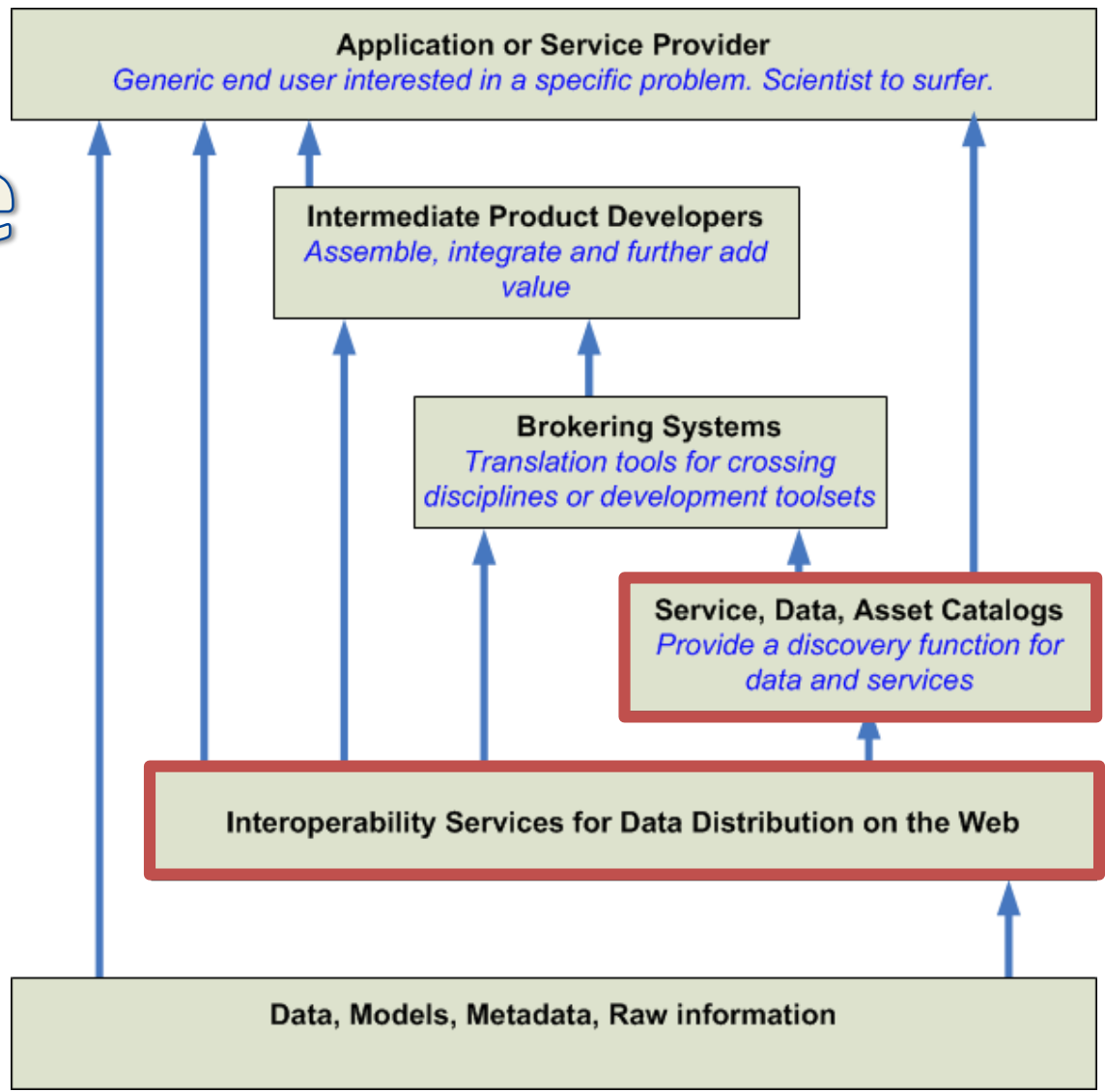


A layered view of the primary roles within IOOS/DMAC

Knowledge



Raw data

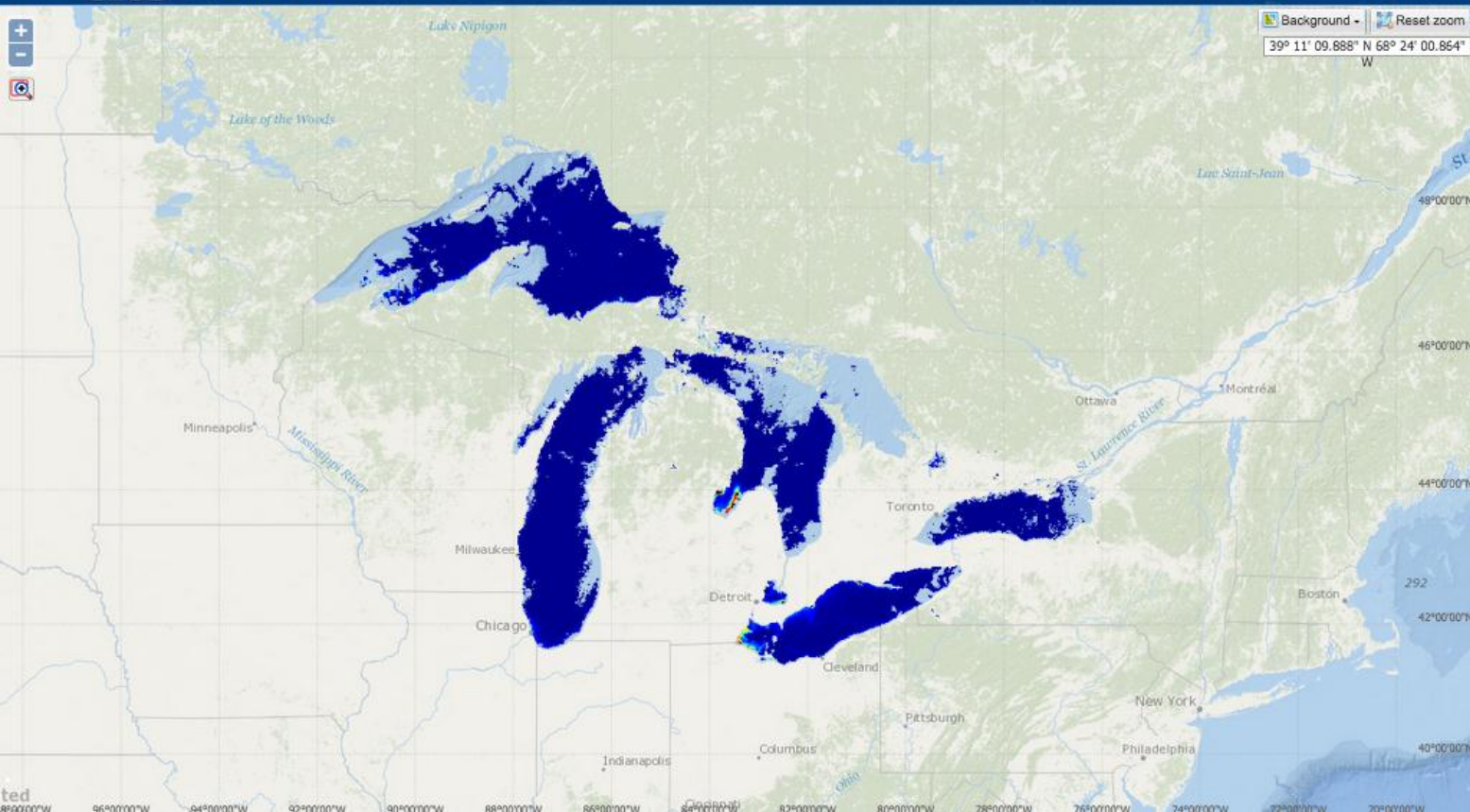




GLOS Portal



GLOS GREAT LAKES OBSERVING SYSTEM DATA PORTAL



Enter keywords to find data.

Point observations | **Satellite observations** | Model forecasts

These overlays are in near-real time. The weather hazard layers are controlled separately below.

Type: **Suspended minerals**

Contrast: RADAR

Satellite data: **November**

- Base reflectivity
- Chlorophyll concentration
- Colored dissolved organic matter
- Dissolved organic carbon
- Natural color
- Suspended minerals**
- Water surface temperature

2.25
1.50
0.75

Show weather hazards? Yes No

Access hazard text by clicking in a yellow, orange, or red shaded area on the map.

Warnings Watches Advisories

Disclaimer: All products published on this website are prototype products and are not intended to be used for navigational or operational purposes. [View full disclaimer.](#)

SEND FEEDBACK © Great Lakes Observing System
229 Nickels Arcade



Point Query Tool



1. Enter Longitude, Latitude and Lake Name

Decimal Degree Degrees Minutes Seconds

Longitude:

Latitude:

Lake Name:

Select Point of Interest from Map

2. Select the Model Type

Nowcast 2D Nowcast 3D Forecast 2D Nowcast Input Data Forecast Input Data

3. Select Date and Time

Time Zone:

Date/Time Range Latest

Start Date/Time: /

End Date/Time: /

4. Choose Parameters for Output

Unit of Measure:

Mean Water Depth

Water Level Displacement

Water Velocity at Surface

Depth-Averaged Water Velocity

Significant Wave Height

Wave Direction

Wave Period

Ice Concentration

Ice Thickness

5. Data Format and Other Options

Data Format:

Order by Date/Time: Ascending Descending

Display CSV/TAB in the Browser:

Include Cell Number:

Include Day of the Year:

- Waves
- Water Levels
- Surface Currents
- Ice Coverage

Data Sharing Portals

- Great Lakes Coastal Forecasting System (winds, waves, currents, surface temps, etc)
glerl.noaa.gov/res/glcfs
- National Data Buoy Center (waves, winds, air temps, pressure, humidity, water temps, etc)
ndbc.noaa.gov
- Lake Levels
tidesandcurrents.noaa.gov
- Remote Sensing (Ice, color, surface temps, etc)
coastwatch.glerl.noaa.gov
- Mussel Watch Contaminants
egisws02.nos.noaa.gov/nsandt/index.html#
- Great Lakes Observing System
data.glos.us/portal/