

NCSA Tools for Vector Borne Disease Modelling

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NCSA Tools Overview

- Geodashboard
 - Geospatial data storage, display, download
- Clowder
 - <https://clowder.ncsa.illinois.edu/>
 - Data Management System
- BrownDog
 - <http://browndog.ncsa.illinois.edu/>
 - Data Transformations
 - Conversions
 - Extractions

Geodashboard Demo Sites

- Demo sites could be broken
 - Version 2 <http://gltg-demo.ncsa.illinois.edu/geodashboard/>
 - Version 3 <http://gltg-demo.ncsa.illinois.edu/>

Point Data

- Select a Site
 - Popup = Overview
 - View Data => Details
- Standardized JSON

```
{  
  "id": 41968129,  
  "created": "2017-07-27T16:24:52Z",  
  "start_time": "1982-05-17T00:00:00Z",  
  "end_time": "1982-05-17T00:00:00Z",  
  "properties": {  
    "site": "foxriver98",  
    "owner": "sierra-club",  
    "ammonia-ionized-temp-ph-nh4-mgl": 0.00171  
  },  
  "type": "Feature",  
  "geometry": {  
    "type": "Point",  
    "coordinates": [  
      41.666389,  
      -88.523889,  
      0  
    ]  
  },  
  "stream_id": "1743",  
  "sensor_id": "1548",  
  "sensor_name": "foxriver98"  
}
```

Great Lakes to Gulf
VIRTUAL OBSERVATORY

WELCOME EXPLORE COMPARE DOWNLOAD ABOUT

Explore Layers

Explore Data by Source

Gustavus Adolphus College (GAC)

0702

United States Geological Survey (USGS)

0808
0807
0806
1103
1101
1030
1027
1024
1020
1023
0714
0713
0712
0710
0708
0706
0410
0514
0512

MISSOURI RIVER AT HERMANN, MO

DATA SOURCE USGS Monitoring Site
TIME PERIOD 11/1/1997 - 06/13/2017
LAT, LONG 38.710 ° N, 91.439 ° W

PARAMETERS (9)
Colored Dissolved Organic Matter (ppb QSE)
Discharge (ft3/s)
Dissolved Oxygen (mg/L)

View Data

Explore Data by River Reaches

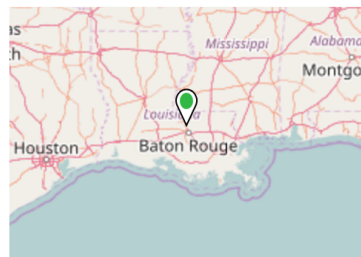
Leaflet | OpenStreetMap contributors

Details

Data
Calculated Data

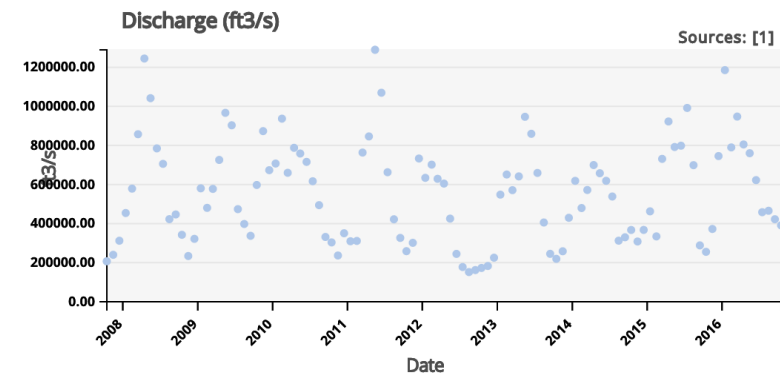
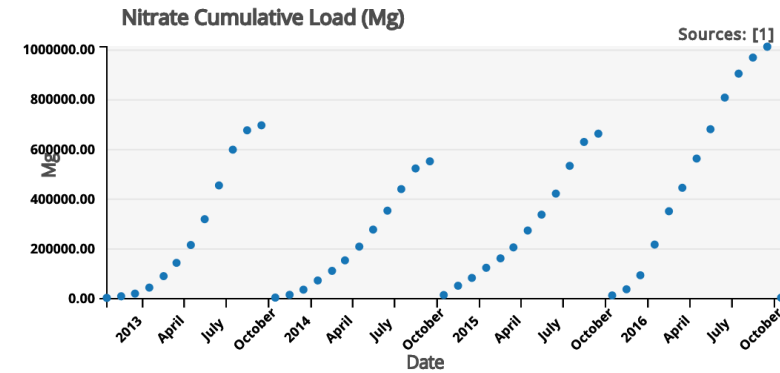
Selected Parameters i

- Nitrate Cumulative Load (Mg)
- Discharge (ft3/s)
- Dissolved Oxygen (mg/L)
- Nitrate Load (Mg)
- Nitrate as N (mg/L)
- Specific Conductance (uS/cm)
- Turbidity (FNU)
- Water Temperature (C)

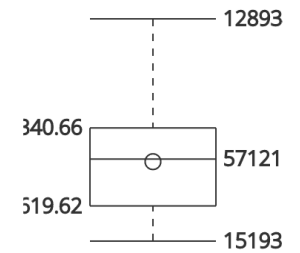
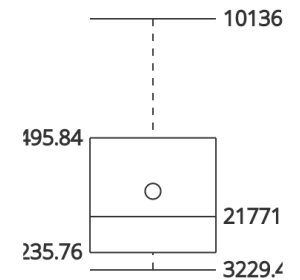


Date Range Averaged by month

Time Series



Box and Whisker i

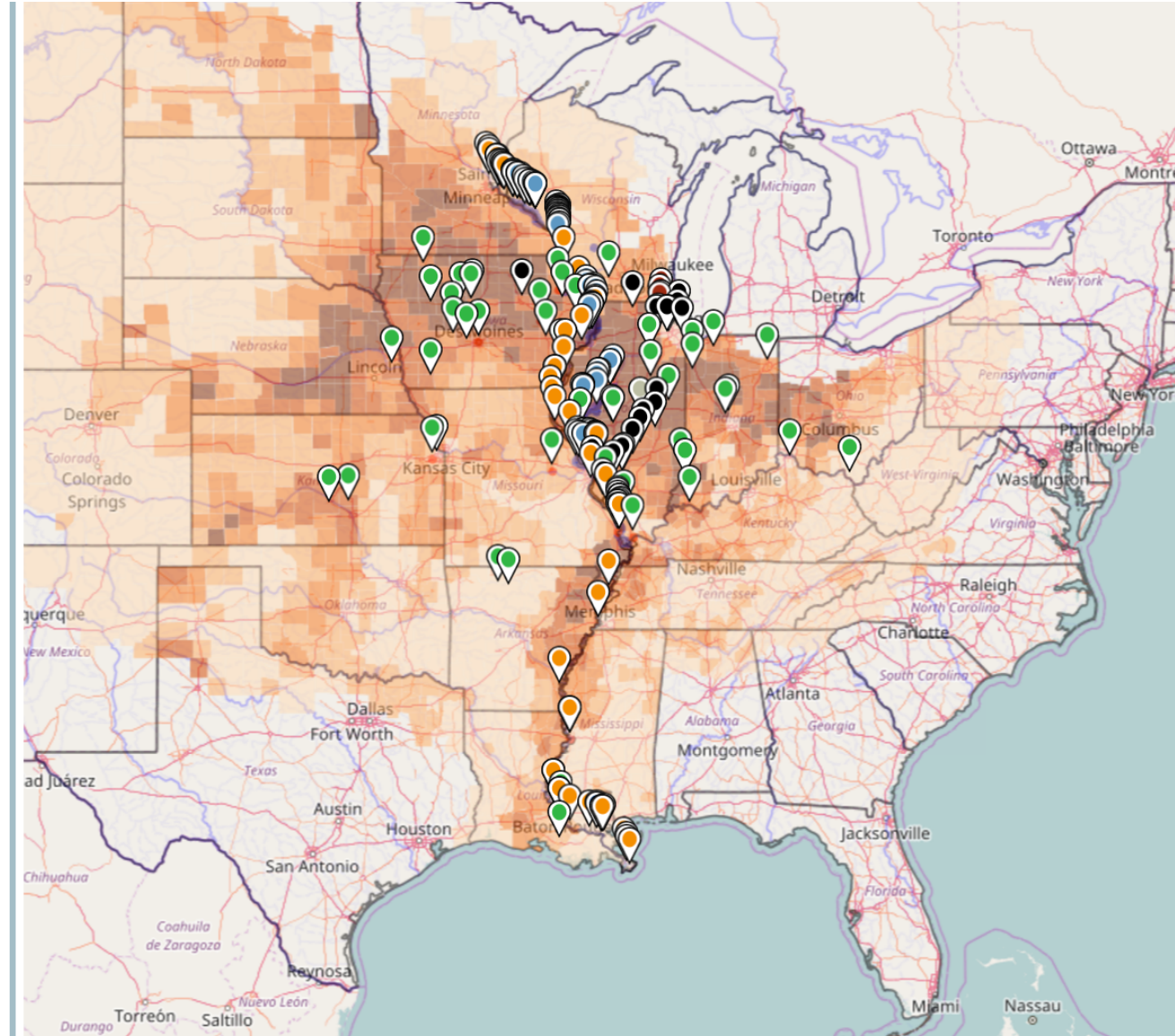


Shape Files

Spatial Data

- Here Fertilizer

- Sites
- Large Rivers
- HUC 8
- HUC 4
- HUC 2
- US States
- Total annual nitrogen from point sources by HUC8 watershed (avg. 2007-2014)
- Stream segments impaired for Nitrogen
- Stream segments impaired for Phosphorus
- Stream segments impaired for Nutrients



Select by Shape

Areas

River Reaches

Watersheds

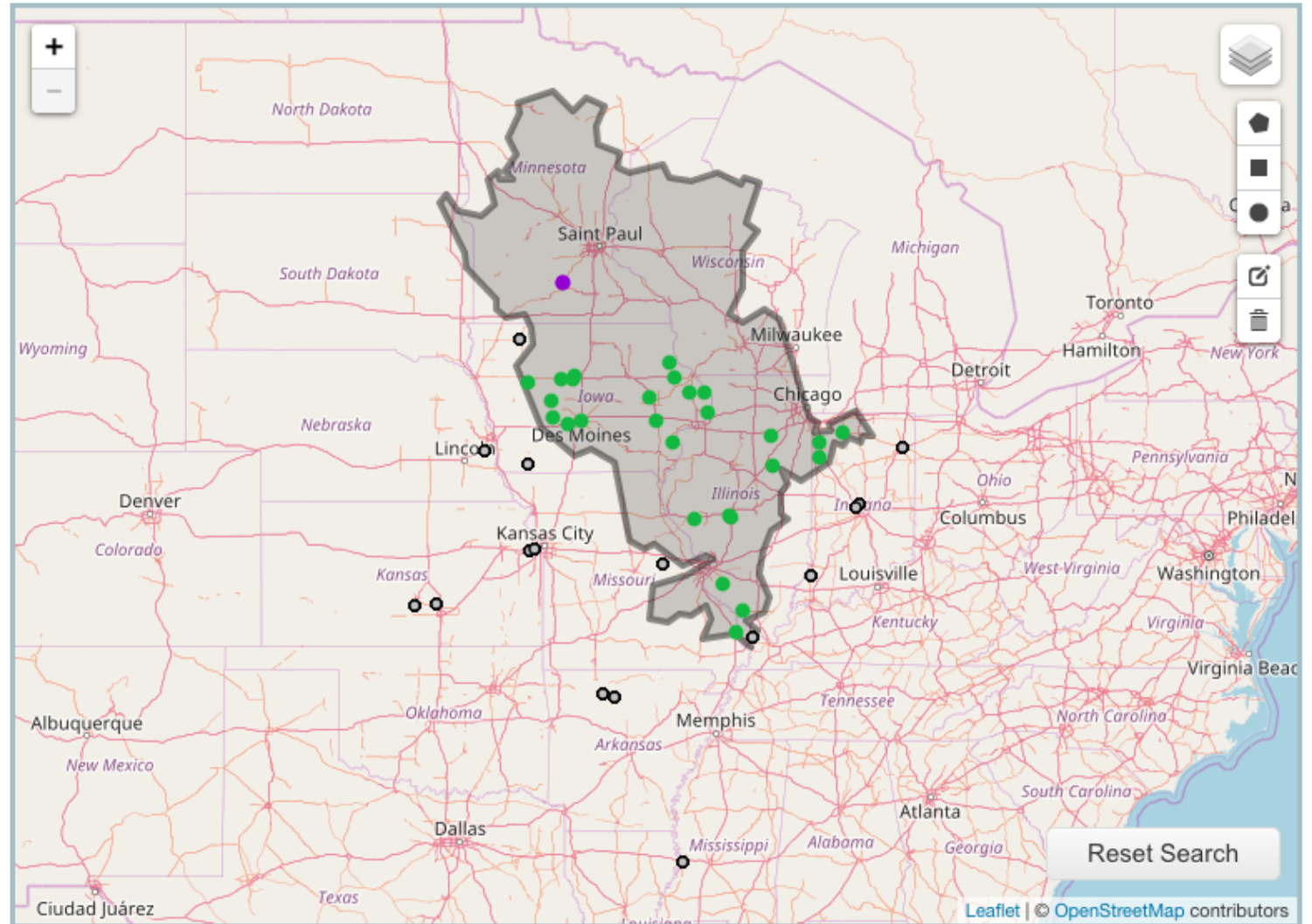
- Ohio
- Tennessee
- Upper Mississippi
- Lower Mississippi
- Missouri

Data Sources

- Gustavus Adolphus College (GAC)
- United States Geological Survey (USGS)

Parameters

- Air Temperature 24hr Avg (F)
- Alkalinity Total (mg/L)
- Ammonia Unionized Temp pH NH4 (mg/L)



Search Results

Download as CSV

Download as JSON

Permalink

Visualize

Download Mixed Data Sources

The image shows a screenshot of an Excel spreadsheet with a data table. The table has the following columns: id, created, start_time, end_time, owner, source, unit_code, nitrate-nitrite, nitrate-as-n, procedures, total-nitrogen, and longitude. The data rows contain various entries, including owner names like WIDNR_WQ, MNP, and USGS-MN, and source URLs like http://water mg/l and http://waterqualitydata/. Two red callouts are present: one pointing to the 'nitrate-nitrite' column with the text 'Nitrate + Nitrite as N', and another pointing to the 'source' column with the text 'Mixed Sources'.

	A	B	C	D	E	F	G	H	I	J	K	L
1	id	created	start_time	end_time	owner	source	unit_code	nitrate-nitrite	nitrate-as-n	procedures	total-nitrogen	longitude
2	2241748	2015-10-21T	1988-07-06T	1988-07-06T	WIDNR_WQ	http://water mg/l		0.11				
3	2239396	2015-10-21T	1988-07-26T	1988-07-26T	MNP	http://waterqualitydata/						
4	2240307	2015-10-21T	1988-07-26T	1988-07-26T	MNP	http://water mg/l		0.08				
5	2240642	2015-10-21T	1988-07-26T	1988-07-26T	MNP	http://water mg/l		1.5				
6	2239950	2015-10-21T	1988-07-26T	1988-07-26T	MNP	http://water mg/l		1.6				
7	2241066	2015-10-21T	1988-08-03T	1988-08-03T	USGS-MN	http://water mg/l as N		1.4				
8	2241749	2015-10-21T	1988-08-03T	1988-08-03T	WIDNR_WQ	http://water mg/l		0.47				
9	2239397	2015-10-21T	1988-08-24T	1988-08-24T	MNP	http://water mg/l		0.04				
10	2239951	2015-10-21T	1988-08-31T	1988-08-31T	MNP	http://water mg/l		0.92				
11	2240643	2015-10-21T	1988-08-31T	1988-08-31T	MNP	http://water mg/l		1.2				
12	2240308	2015-10-21T	1988-08-31T	1988-08-31T	MNP	http://water mg/l		0.02				
13	2241750	2015-10-21T	1988-09-07T	1988-09-07T	WIDNR_WQ	http://water mg/l						
14	2239952	2015-10-21T	1988-09-28T	1988-09-28T	MNP	http://water mg/l						
15	2240644	2015-10-21T	1988-09-28T	1988-09-28T	MNP	http://water mg/l						
16	2240309	2015-10-21T	1988-09-28T	1988-09-28T	MNP	http://water mg/l						
17	2239398	2015-10-21T	1988-09-28T	1988-09-28T	MNP	http://water mg/l						
18	2241751	2015-10-21T	1988-10-05T	1988-10-05T	WIDNR_WQ	http://water mg/l						
19	2240310	2015-10-21T	1988-10-25T	1988-10-25T	MNP	http://water mg/l						
20	2239953	2015-10-21T	1988-10-25T	1988-10-25T	MNP	http://water mg/l						
21	2240645	2015-10-21T	1988-10-25T	1988-10-25T	MNP	http://water mg/l						
22	2239399	2015-10-21T	1988-10-25T	1988-10-25T	MNP	http://water mg/l						
23	2239400	2015-10-21T	1988-10-27T	1988-10-27T	MNP	http://water mg/l		0.18				
24	2241752	2015-10-21T	1988-11-01T	1988-11-01T	WIDNR_WQ	http://water mg/l		1.1				
25	2241067	2015-10-21T	1988-11-22T	1988-11-22T	USGS-MN	http://water mg/l as N		1.3				
26	2241753	2015-10-21T	1988-12-06T	1988-12-06T	WIDNR_WQ	http://water mg/l		1.12				
27	2241754	2015-10-21T	1989-02-08T	1989-02-08T	WIDNR_WQ	http://water mg/l		1.41				
28	2241068	2015-10-21T	1989-02-22T	1989-02-22T	USGS-MN	http://water mg/l as N			1.53			
29	2241755	2015-10-21T	1989-03-07T	1989-03-07T	WIDNR_WQ	http://water mg/l		1.34				
30	2239954	2015-10-21T	1989-03-28T	1989-03-28T	MNP	http://water mg/l		1.7				
31	2240646	2015-10-21T	1989-03-28T	1989-03-28T	MNP	http://water mg/l		2.1				
32	2240311	2015-10-21T	1989-03-28T	1989-03-28T	MNP	http://water mg/l		2.5				
33	2241756	2015-10-21T	1989-04-05T	1989-04-05T	WIDNR_WQ	http://water mg/l		1.89				
34	2241069	2015-10-21T	1989-04-13T	1989-04-13T	USGS-MN	http://water mg/l as N		1.4				
35	2239955	2015-10-21T	1989-04-26T	1989-04-26T	MNP	http://water mg/l		0.34				
36	2240647	2015-10-21T	1989-04-26T	1989-04-26T	MNP	http://water mg/l		0.31				
37	2240312	2015-10-21T	1989-04-27T	1989-04-27T	MNP	http://water mg/l		0.12				
38	2239401	2015-10-21T	1989-04-27T	1989-04-27T	MNP	http://water mg/l		0.09				
39	2241757	2015-10-21T	1989-05-02T	1989-05-02T	WIDNR_WQ	http://water mg/l		0.38				
40	2240313	2015-10-21T	1989-05-23T	1989-05-23T	MNP	http://water mg/l		0.14				

Trends

Select

- Parameter
- Baseline Average
- Rolling Average
- Threshold
- Region

Select Parameter

Parameter to Explore

- Nitrate and Nitrite as N (mg/L)
- Discharge (ft³/s)
- Turbidity (FNU)

Change Calculation Setting

Setting how to calculate change

Baseline Avg Period (yr)

5

Rolling Avg Period (yr)

1

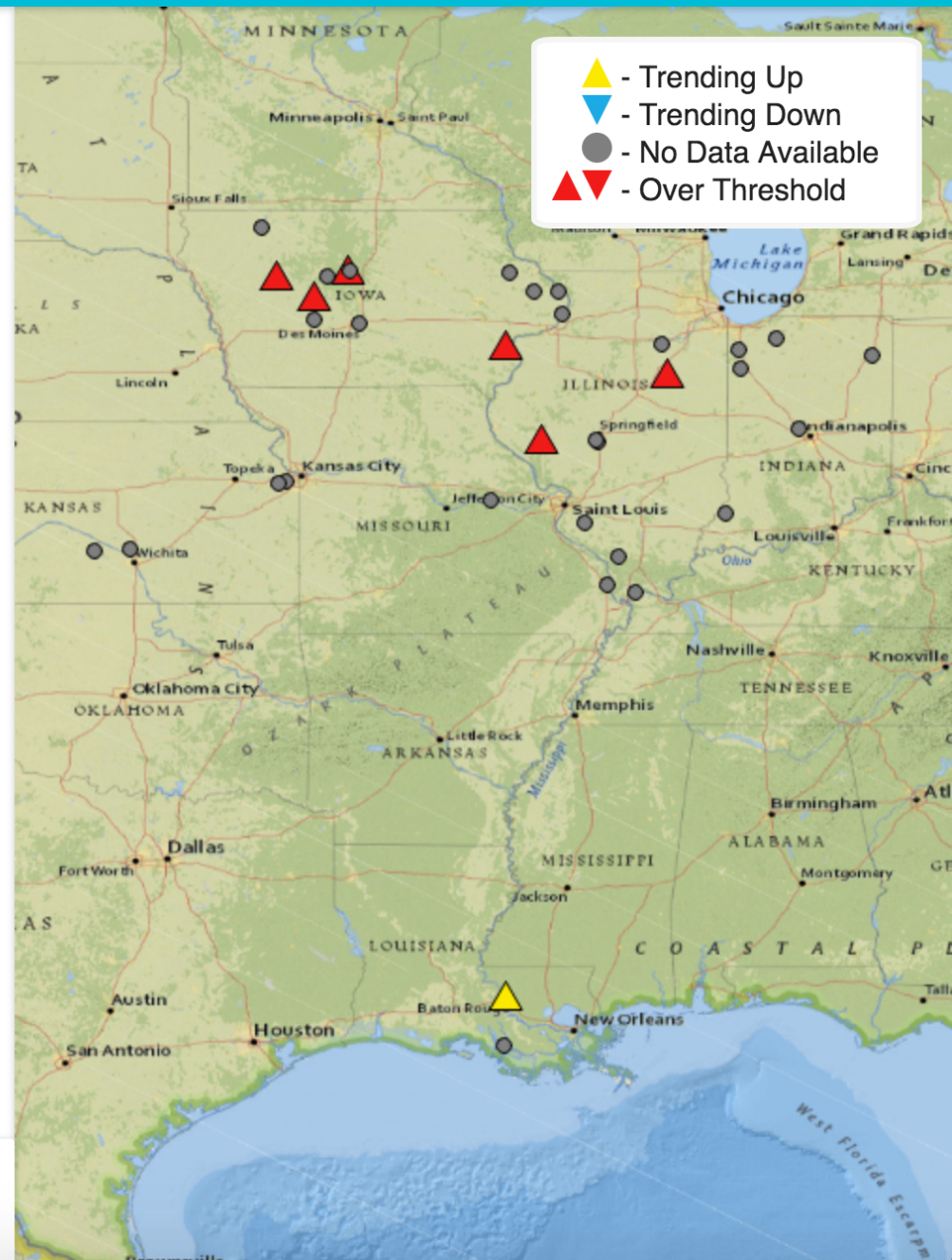
Select Threshold Value

Change the threshold value for analysis

Standard01

APPLY SETTING

Results: 35 / 40




Clowder and BrownDog

Clowder

- Content Repository

BrownDog

- Data Transformations
- Can be run automatically through Clowder



Filename: 8a17160r.jpg
Type: image/jpeg
Uploaded on: Dec 21, 2015 13:52:34
Uploaded by: [Marcus Slavenas](#)

License
Type: All Rights Reserved
Holder: Marcus Slavenas
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Tags


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- Person Automatically Detected [File]

- Human Face Automatically Detected [Section]
- Person Automatically Detected [Section]
- Human Profile Automatically Detected [Section]


Datasets containing the file

- [GI Upload](#)
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Sections
Click on icon at bottom-right of gallery to toggle sections gallery fullscreen view



Thumbnail Position Description Find

	x: 282.00, y: 43.00, width: 110.00, height: 110.00	Edit	Similar
---	--	----------------------	-------------------------

Upload to Clowder -> BrownDog runs Extractor on .xlsx file -> posts data to Geodashboard

GLM Explore Help

Indira Gutierrez / GLFMSP

GLFMSP


Owner: Indira Gutierrez
Created on Jun 13, 2017

All Rights Reserved Indira Gutierrez

Description: Great Lakes Fish Monitoring and Surveillance Program - ingested data

[Download All Files](#)

Files Metadata Visualizations Comments (0)

**Fish_Program_2017.xlsx**
application/vnd.openxmlformats-officedocument.spreadsheetml.sheet
Jun 13, 2017
1.8 MB
0 0 0

[Download](#)

Keweenaw Point

Contaminants

Date Range: 8/15/1978 - 8/15/2013
Averaged by year

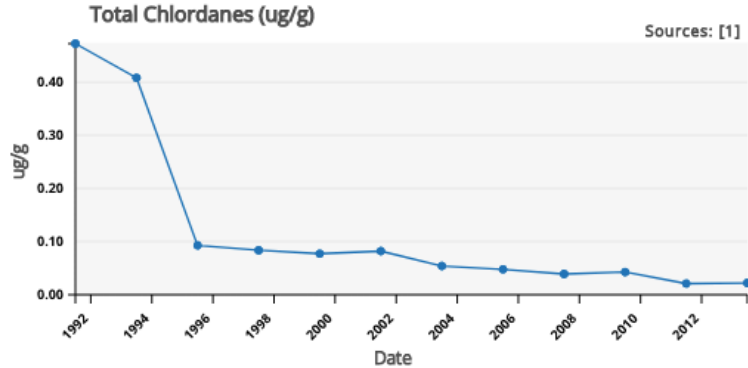
[Download Data](#)

Selected Parameters

- Total Chlordanes (ug/g)
- Mercury (ug/g)
- Total PBDEs (ug/g)
- PCB Fish Tissue (ug/g)
- Toxaphene (ug/l)

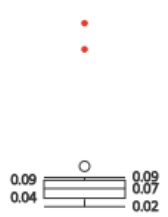
Time Series

Total Chlordanes (ug/g)

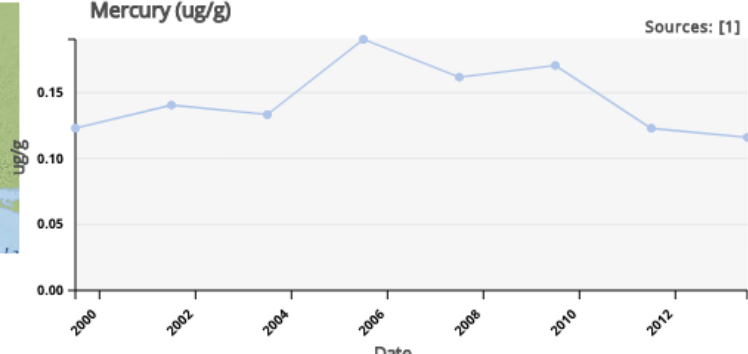


Date	Total Chlordanes (ug/g)
1992	0.45
1994	0.40
1996	0.10
1998	0.09
2000	0.08
2002	0.09
2004	0.05
2006	0.04
2008	0.04
2010	0.04
2012	0.02

Sources: [1]



Mercury (ug/g)



Date	Mercury (ug/g)
2000	0.12
2002	0.14
2004	0.13
2006	0.19
2008	0.16
2010	0.17
2012	0.12

Sources: [1]

