

# WEATHERBLUR

## MOBILE DATA COLLECTION AND MAPPING FOR STEM EDUCATION

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# NBT

## SOLUTIONS

- Focus on geospatial web applications
- Build custom web mapping applications

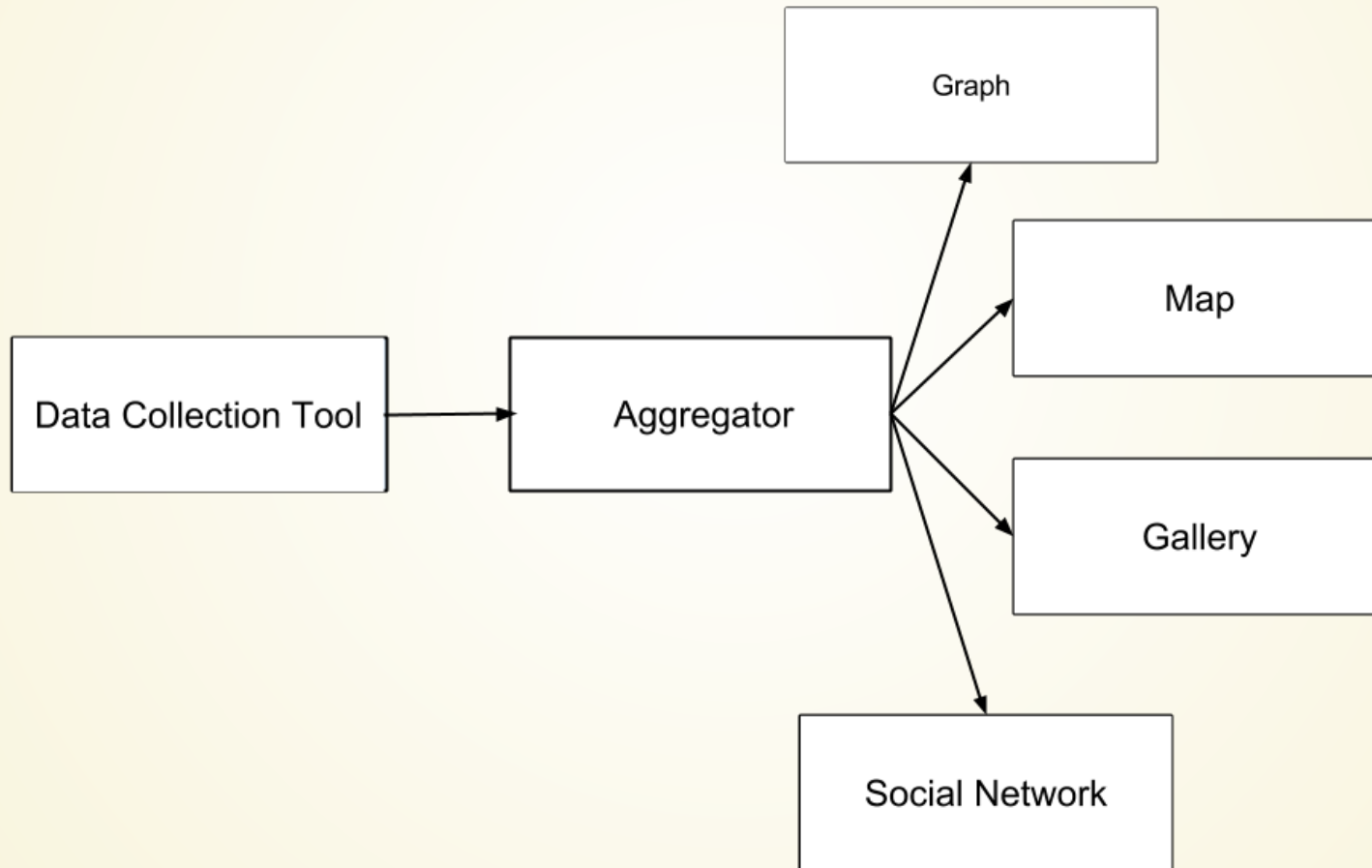


# WeatherBlur

A PROJECT OF THE ISLAND INSTITUTE

- Facilitate communication among teachers, students, fisherman and scientist in order to deepen participant understanding of earth science concepts
- Used by elementary and middle schools in Maine and Alaska
- Integrated into the school's curriculum
- Works to promote and sustain Maine's island and remote coastal communities

# ARCHITECTURE



# DATA COLLECTION TOOL

The image shows a mobile browser interface for the WeatherBlur data collection tool. The browser's address bar displays the URL 'www.weatherblur...'. The page header features the WeatherBlur logo, which includes a globe icon and the text 'WeatherBlur A PROJECT OF THE ISLAND INSTITUTE'. Below the header, the form is organized into three sections: 'Location', 'Date', and 'Time'. The 'Location' section contains a text input field with the coordinates '42.88993, -78.8699' and a location selection icon. The 'Date' section consists of three buttons labeled 'NOV', '8', and '2013'. The 'Time' section consists of three buttons labeled '9', '26', and 'AM'. At the bottom of the form is a prominent blue button labeled 'Submit Observation'.

Weatherblur Mobile Data C x

www.weatherblur...

WeatherBlur  
A PROJECT OF THE ISLAND INSTITUTE

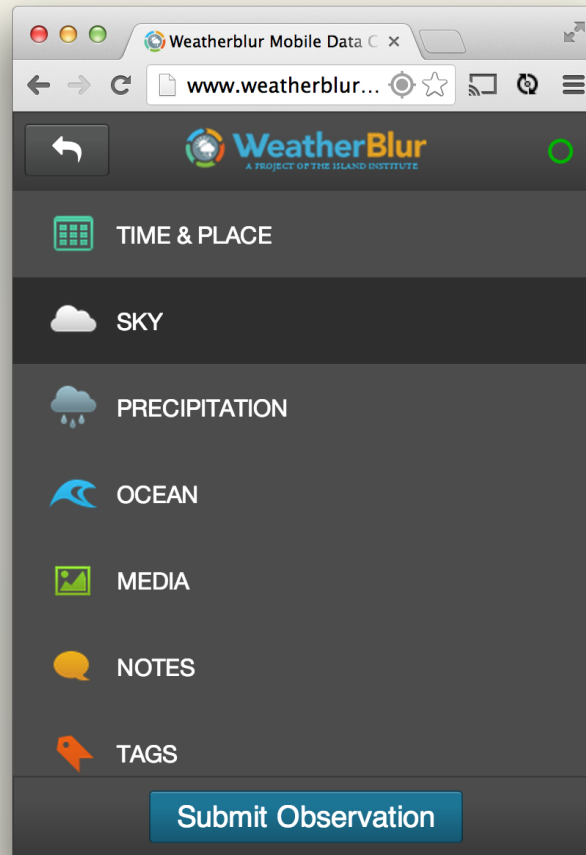
Location  
42.88993, -78.8699

Date  
NOV 8 2013

Time  
9 26 AM

Submit Observation

# PICK A MEASUREMENT



# PICK A MEASUREMENT

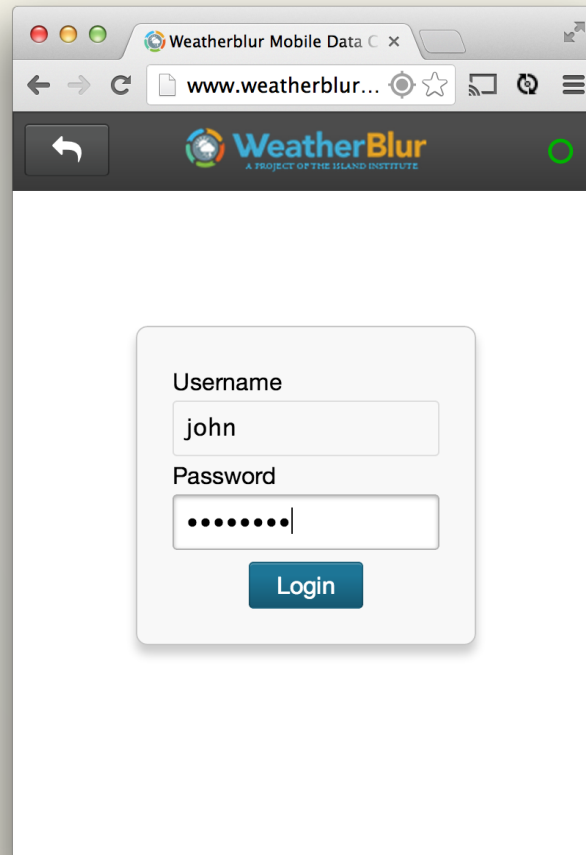


The image shows a mobile web browser interface for 'WeatherBlur Mobile Data'. The browser's address bar shows the URL 'www.weatherblur...'. The page header features the 'WeatherBlur' logo, which includes a globe icon and the text 'WeatherBlur A PROJECT OF THE ISLAND INSTITUTE'. The main content area contains several measurement input fields:

- Temperature:** A text input field containing the number '40' followed by a unit selector '°f'.
- Wind Speed:** A text input field followed by a unit selector 'knots'.
- Wind Direction:** A dropdown menu currently showing 'Wind Direction' and a unit selector 'coming from'.
- Barometric Pressure:** A text input field followed by a unit selector 'in'.
- Rising or Falling:** A dropdown menu currently showing 'Rising or Falling'.

At the bottom of the form is a dark grey bar with a blue button labeled 'Submit Observation'.

# SUBMIT AN OBSERVATION

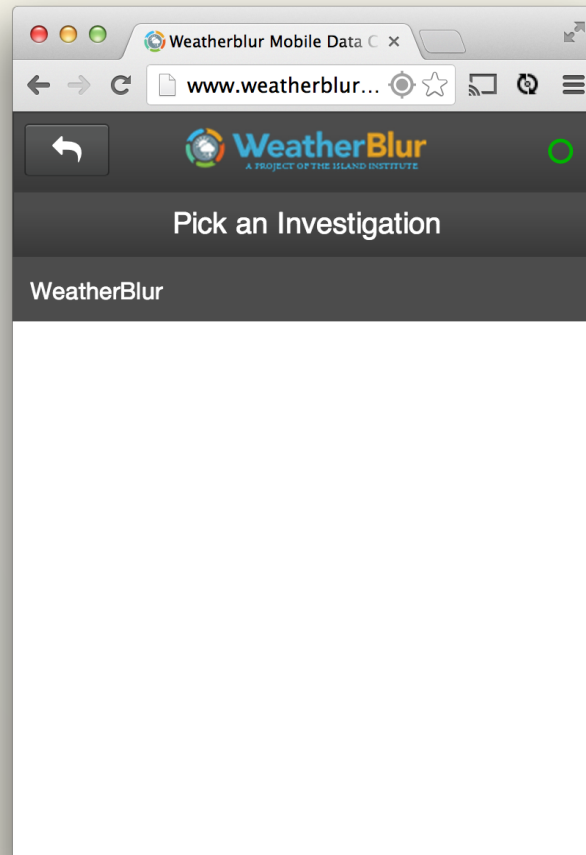


A screenshot of a mobile browser window displaying a login form. The browser's address bar shows the URL "www.weatherblur...". The page header features the "WeatherBlur" logo, which includes a globe icon and the text "WeatherBlur A PROJECT OF THE ISLAND INSTITUTE". The login form is centered on the page and contains the following elements:

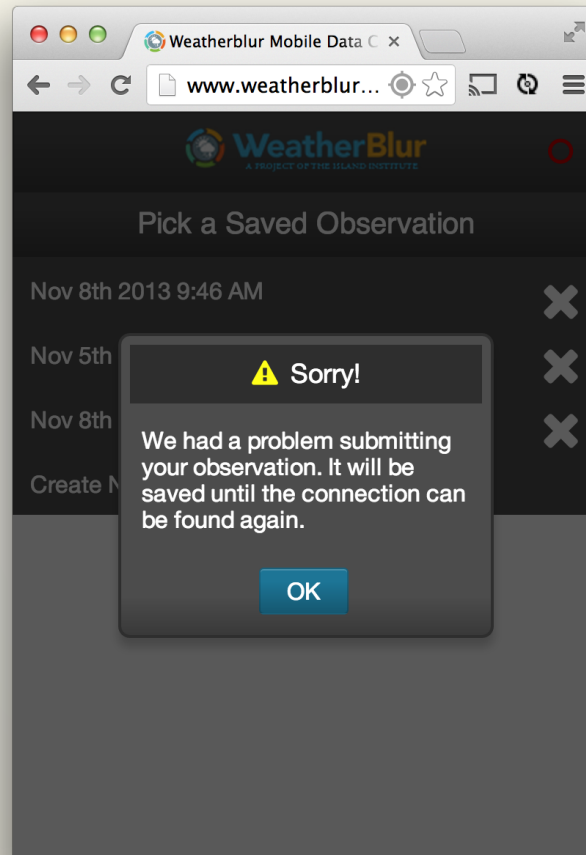
- A "Username" label above a text input field containing the text "john".
- A "Password" label above a text input field containing seven black dots, indicating a masked password.
- A blue "Login" button positioned below the password field.



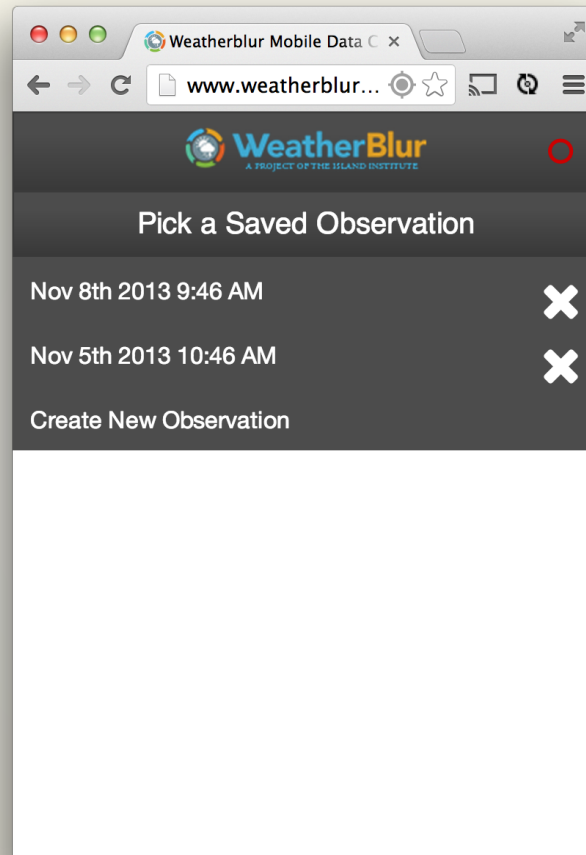
# PICK AN INVESTIGATION



# OFFLINE MODE



# OFFLINE MODE



# AGGREGATOR

- Store Observation Data
- Provides an API to access the data
- Only users submit data
- Buoys and weather stations will be added in the future

# GALLERY

## Explore Data

Observations

Graphs

Maps

Data



Recorded: Nov 07, 2013  
By: Alaskastar



Recorded: Nov 05, 2013  
By: Alaskastar



Recorded: Nov 05, 2013  
By: David Johnson



Recorded: Nov 04, 2013  
By: Alaskastar



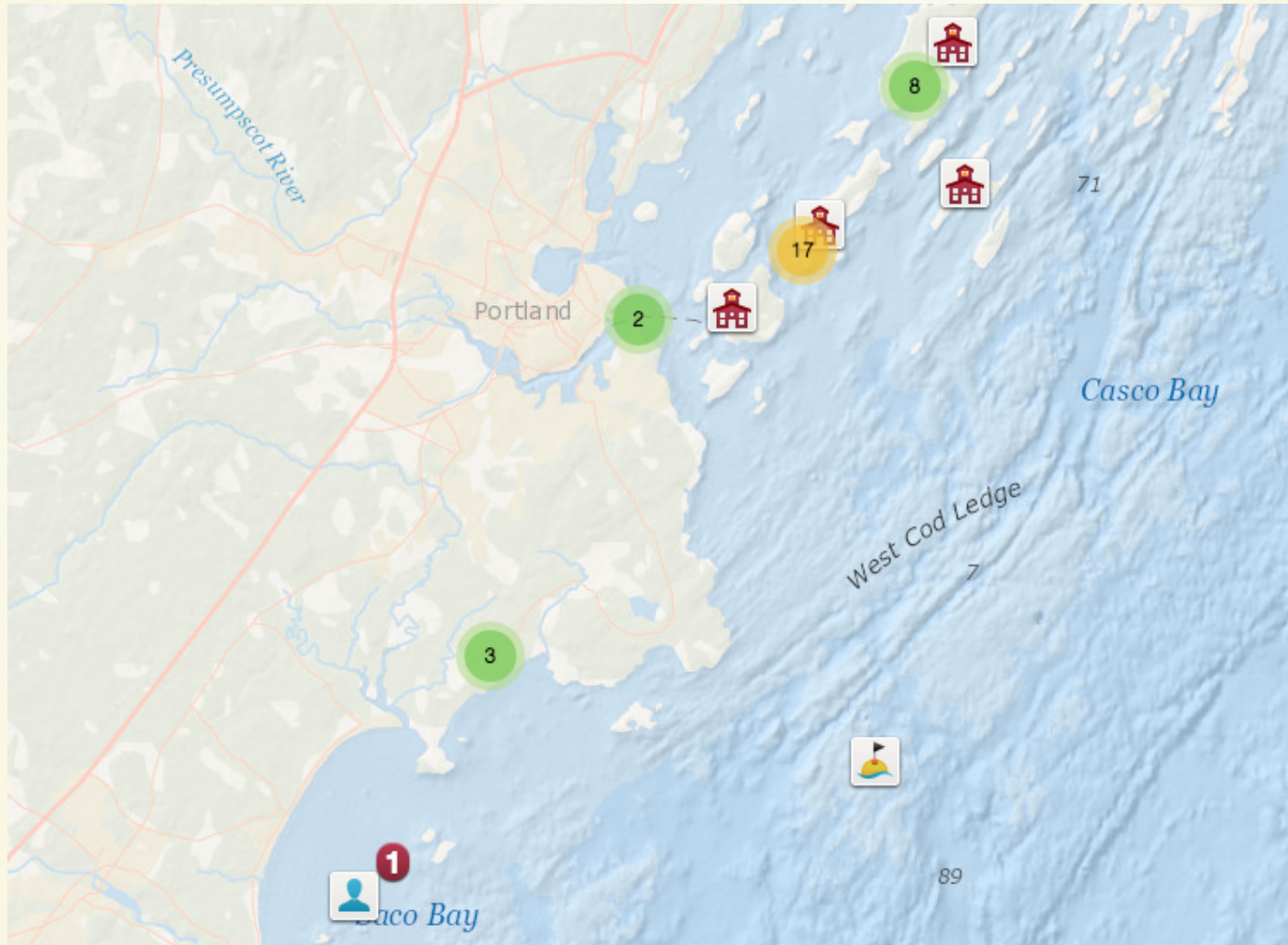
Recorded: Nov 03, 2013  
By: Richard Nelson



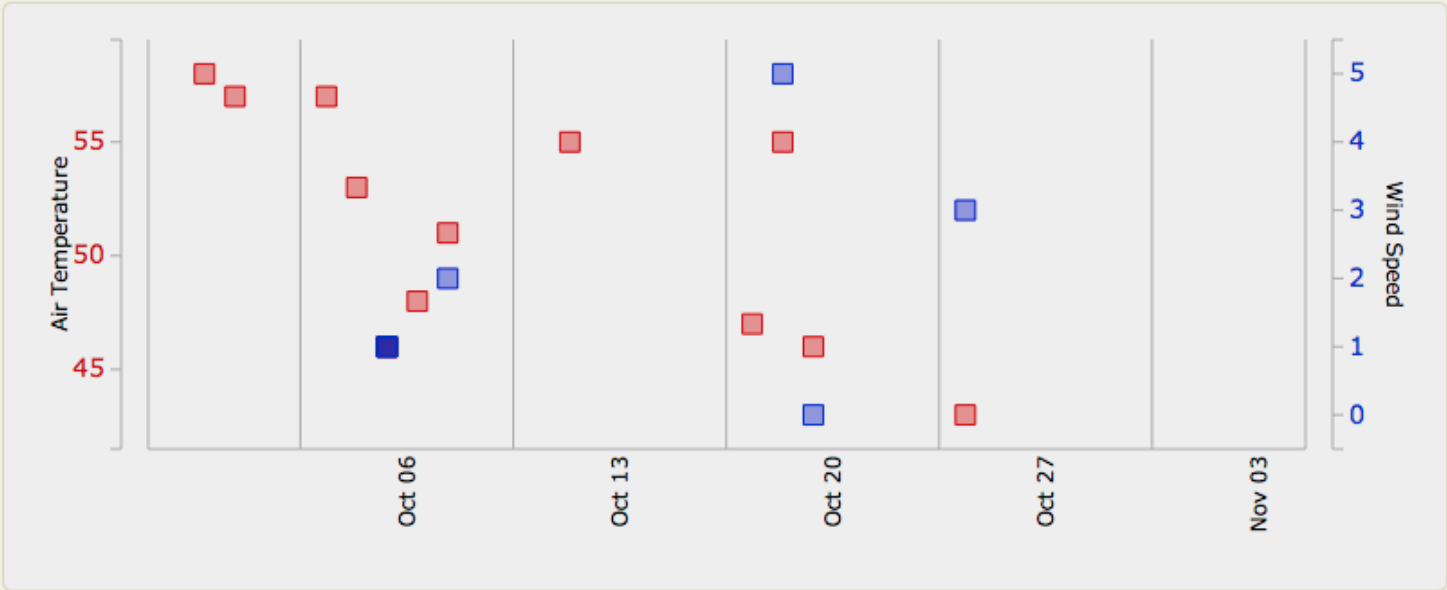
Recorded: Oct 31, 2013  
By: Alaskastar



# MAP



# GRAPH



From:  Chebeague Island School,  C...  Start Date:   End Date:  

### Choose up to 2 Measures for Display

- |   |  |  |  |
|---|--|--|--|
| <input checked="" type="checkbox"/> Air Temperature | <input type="checkbox"/> Barometric Pressure | <input type="checkbox"/> Snow Accumulation | <input type="checkbox"/> Snow Melted             |
| <input type="checkbox"/> Rain and/or Melted Snow    | <input type="checkbox"/> 24 Hour Rainfall    | <input type="checkbox"/> Accumulated Snow  | <input type="checkbox"/> Accumulated Melted Snow |
| <input type="checkbox"/> 24 Hour Snowfall           | <input type="checkbox"/> 24 Hour Melted Snow | <input type="checkbox"/> Swell Height      | <input type="checkbox"/> Swell Period            |
| <input type="checkbox"/> Snow Depth                 | <input type="checkbox"/> Snow Melted         | <input type="checkbox"/> Water Temperature | <input type="checkbox"/> Wave Height             |
| <input checked="" type="checkbox"/> Wind Speed      |  |  |  |

[Show Graph](#)

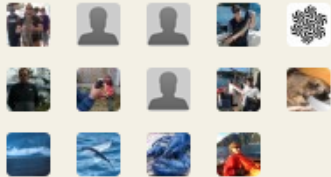


# SOCIAL NETWORK INVESTIGATIONS

Coordinator  
**Ruth Kermish Allen**



Investigation members



[View all members](#)

## Current Discussions:

Click icons below to filter discussions.

You must be a member of this investigation to participate in discussions about it, but you may still read them.

To ask to be added, click "Request membership".

 Questions/Ideas	 Pictures	 Videos	 Graphs	 Maps	 All
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### **Number of male green crabs.**

Started by longislandschoolpj 26 days ago

3 likes  10 comments



We are noticing that we catch many more male green crabs than female. Yesterday it was 36 males to 5 females. The time before was 28 males to 6 females. We are wondering why there are so many more males. We are not seeing that with the rock and Jonah crabs.

 [green crabs](#)



# SOCIAL NETWORK

Pulling it all together

# MAJOR TECHNOLOGIES

- Leaftlet
- PostgresSQL/PostGIS
- JavaScript
- Groovy
- PHP
- ELGG
- D3
- Heroku/EC2
- Revealjs

# QUESTIONS



**INTERESTED?**

**PLEASE TALK TO ME AFTERWARDS**

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<http://www.nbtsolutions.com>

<http://www.islandinstitute.org>

<http://www.weatherblur.com>