

# FAST: Reducing Harbor Porpoise takes though a bycatch avoidance process

Harbor Porpoise Take Reduction Team Meeting

Providence, RI

Wednesday, November 28th

Jonathon Peros and Daniel Salerno

## Presentation Overview

- **Overview of Fishing Area Selectivity Tool (FAST) Project**
- **Industry Participation**
- **Data Portal and Mock Data Entry**

# Spatial/Temporal Bycatch Avoidance Tool

- Funded through NOAA Fisheries Northeast Cooperative Research Program
- Networked, spatial/temporal approach to bycatch avoidance (“hotspots”), to address early concerns around “choke” stocks in the multispecies complex
- Prior focus
  - Target/avoid dogfish
  - Spawning Cod avoidance
- Current focus
  - Development of web-based data portal/visualization tool
    - Industry led process: Reducing takes in sink gillnet fishery

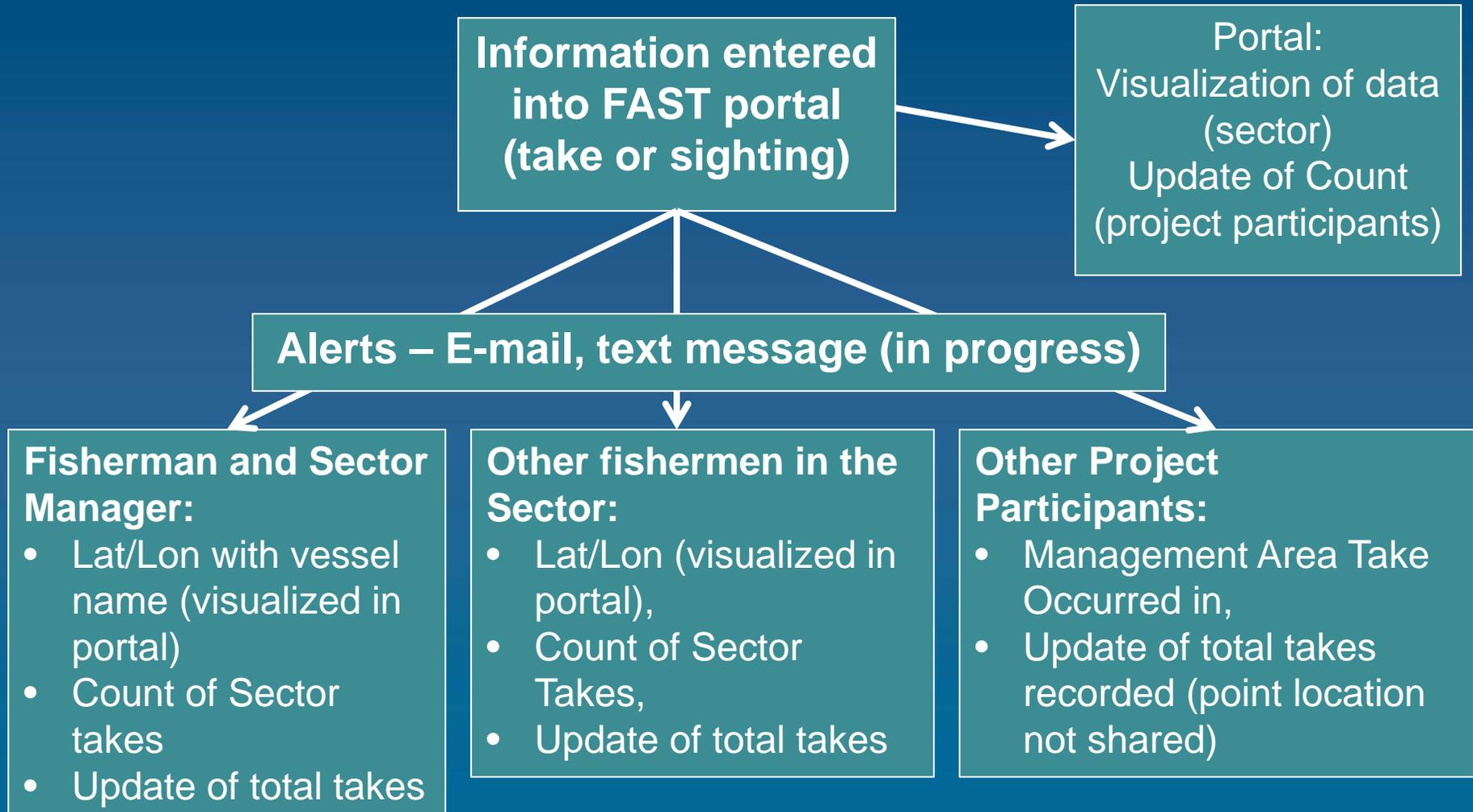
## FAST: Enabling an Industry Led Process

- FAST is a *tool* that can be used in an industry led process *outside of the regulatory process (voluntary)*
- Aligning oceanographic and modeling information with historic and near real-time data through a web-based portal
- Information sharing arrangement designed by industry
  - Alert system
- Industry designed protocols in response to near real-time information
  - Voluntary response to information

# Industry Focus: Reducing Harbor Porpoise Interactions

- Participation by NEFS Sectors operating in the Gulf of Maine
  - Interest in avoiding harbor porpoise
  - Imperative to reduce takes under MMPA
  - Process to achieve compliance with existing regulations
    - Harbor Porpoise Take Reduction Plan
  - Explore new options for reducing takes (bycatch avoidance)
  - Share take and sighting information within sink gillnet fleet

# Industry Led Data Sharing Process



# FAST Data Portal

# Developing a data portal: Overview

## Flexibility of use:

- Application for use on multiple issues

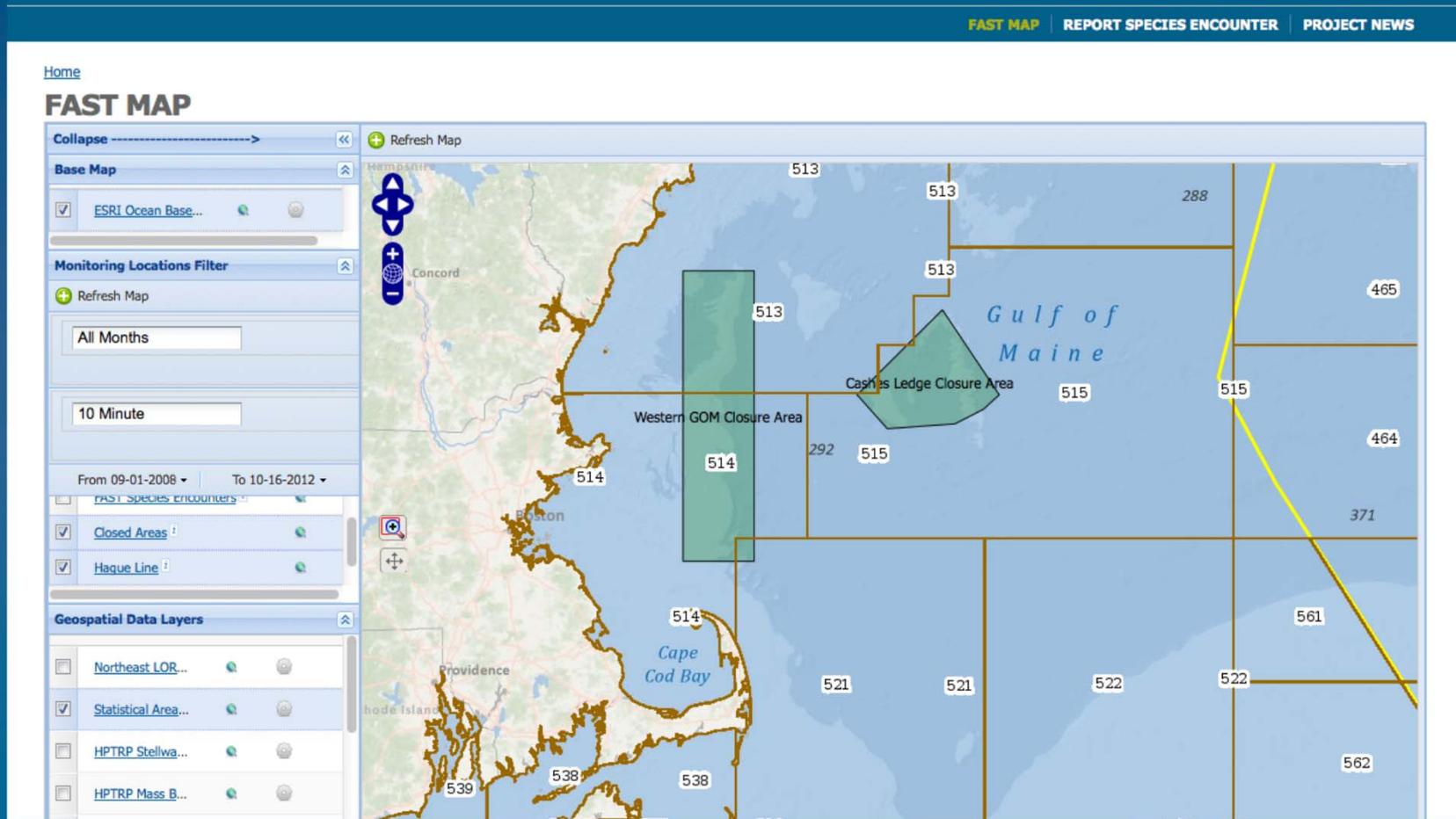
## Data:

- Descriptive information – management areas, closure boundaries, stat areas (public)
- Oceanographic (public)
- Historic catch data (restricted – Observed Takes and Sightings from 1997 to 2012)
- Near real time data (restricted – Industry entered information)

## Industry participants:

- Login function to access restricted information
- Data sharing protocols designed by industry

# Geospatial Data Layers: GF Closures, Stat areas



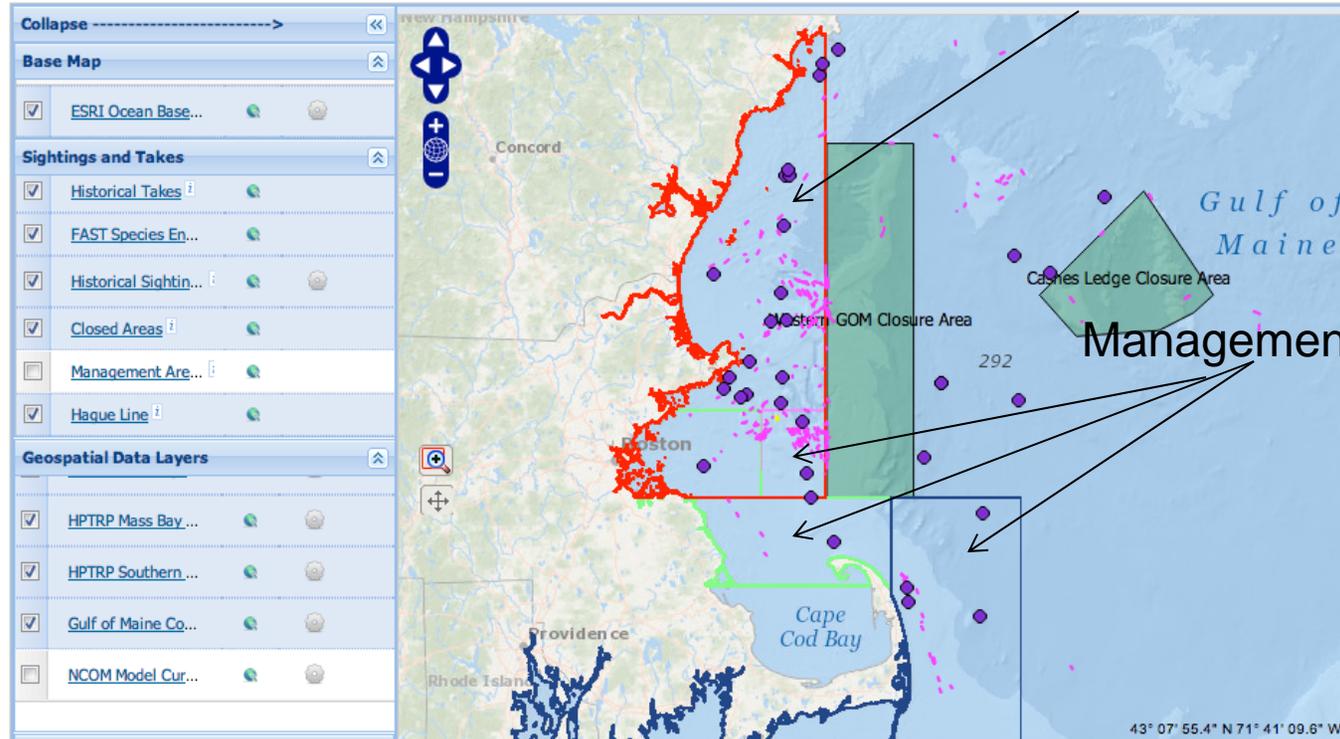
# Geospatial Data Layers

## FAST Fishing Area Selectivity Tool

FAST MAP | REPORT SPECIES ENCOUNTER | PROJECT NEWS

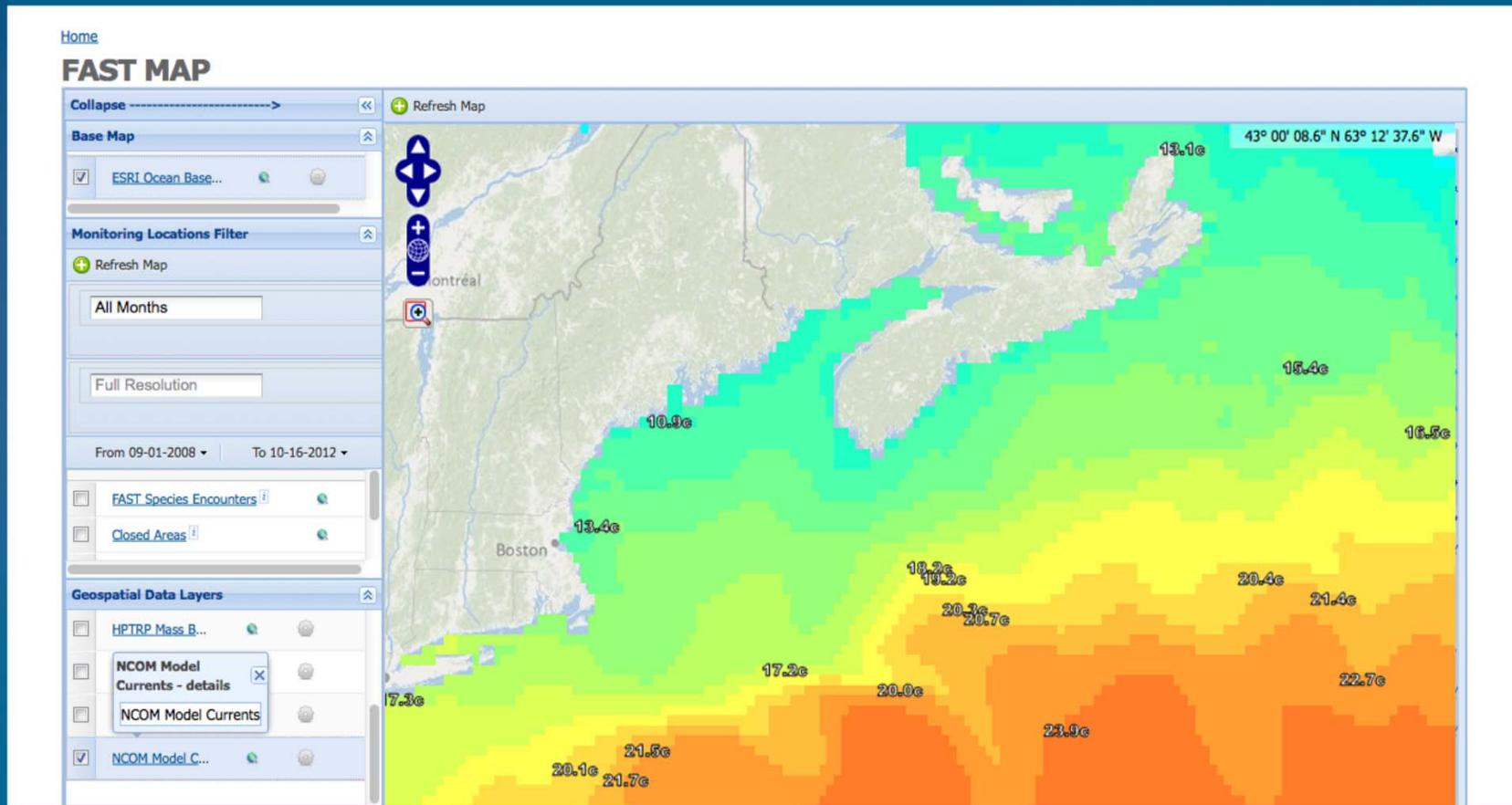
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### FAST MAP



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# Oceanographic Information: Sea Surface Temperature



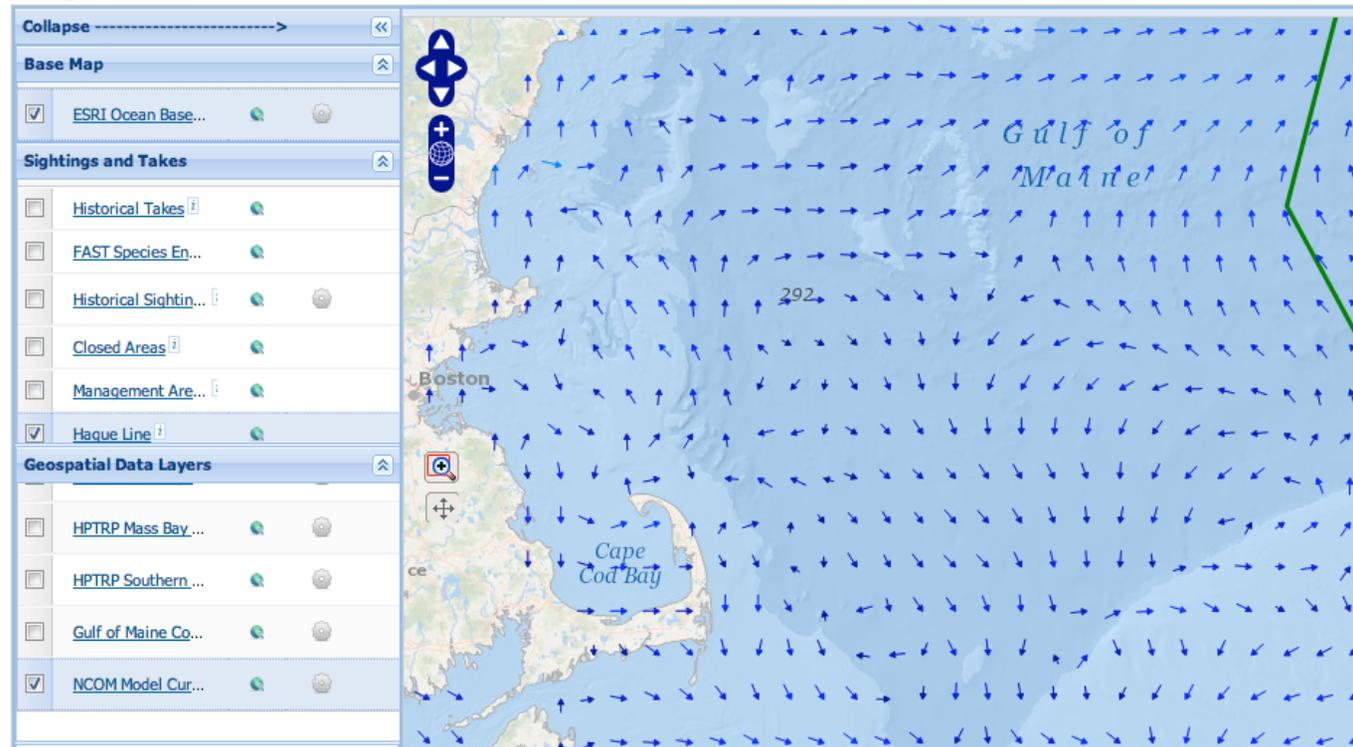
# Oceanographic Information: Currents

## FAST Fishing Area Selectivity Tool

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### FAST MAP



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# Mock Data Entry

## FAST Fishing Area Selectivity Tool

[FAST MAP](#) | [REPORT SPECIES ENCOUNTER](#) | [PROJECT NEWS](#)

### User login

**Username \***

**Password \***

[Create new account](#)

[Request new password](#)

**SIGN IN** >

### WELCOME TO FAST.GMRI.ORG

No front page content has been created yet.

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# Mock Data Entry

## FAST Fishing Area Selectivity Tool

[FAST MAP](#)

[REPORT SPECIES ENCOUNTER](#)

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### REPORT SPECIES ENCOUNTER

Fast Species Encounter

**Species:**  What species?

**Encounter Type:**  What kind of encounter?

**Trip Id:**  Id for this Trip?

**Number of sightings:**  How many of this species sighted?

**Latitude:**  Latitude (dd.ddd | dd mm ss.s | dd mm.mm)

**Longitude:**  Longitude(dd.ddd | dd mm ss.s | dd mm.mm)

**Encounter Date:**

E.g., 2012-11-27  E.g., 16:30:00

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# Mock Data Entry

## FAST Fishing Area Selectivity Tool

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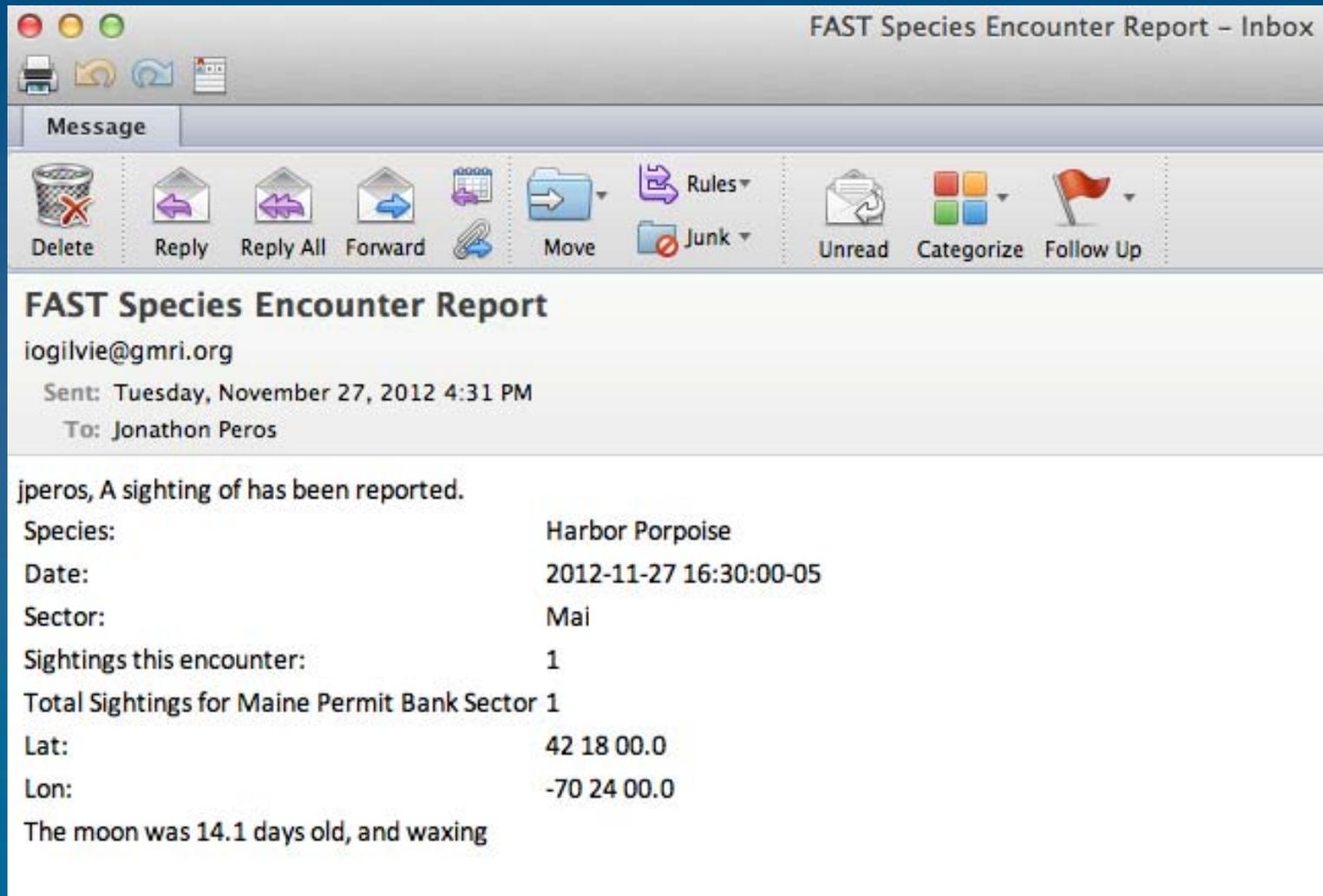
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# Enabling Communication Between Industry: Alerts



FAST Species Encounter Report - Inbox

Message

Delete Reply Reply All Forward Move Rules Junk Unread Categorize Follow Up

**FAST Species Encounter Report**  
iogilvie@gmri.org  
Sent: Tuesday, November 27, 2012 4:31 PM  
To: Jonathon Peros

jperos, A sighting of has been reported.

Species:	Harbor Porpoise
Date:	2012-11-27 16:30:00-05
Sector:	Mai
Sightings this encounter:	1
Total Sightings for Maine Permit Bank Sector 1	
Lat:	42 18 00.0
Lon:	-70 24 00.0

The moon was 14.1 days old, and waxing

# Enabling Communication Between Industry: Alerts



# Mock Data Entry: Species Encounter

## FAST Fishing Area Selectivity Tool

FAST MAP | REPORT SPECIES ENCOUNTER | PROJECT NEWS

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### FAST MAP

Collapse >>>

#### Base Map

ESRI Ocean Base...

#### Sightings and Takes

Historical Takes

FAST Species En...

Historical Sightin...

Closed Areas

Management Are...

Hague Line

#### Geospatial Data Layers

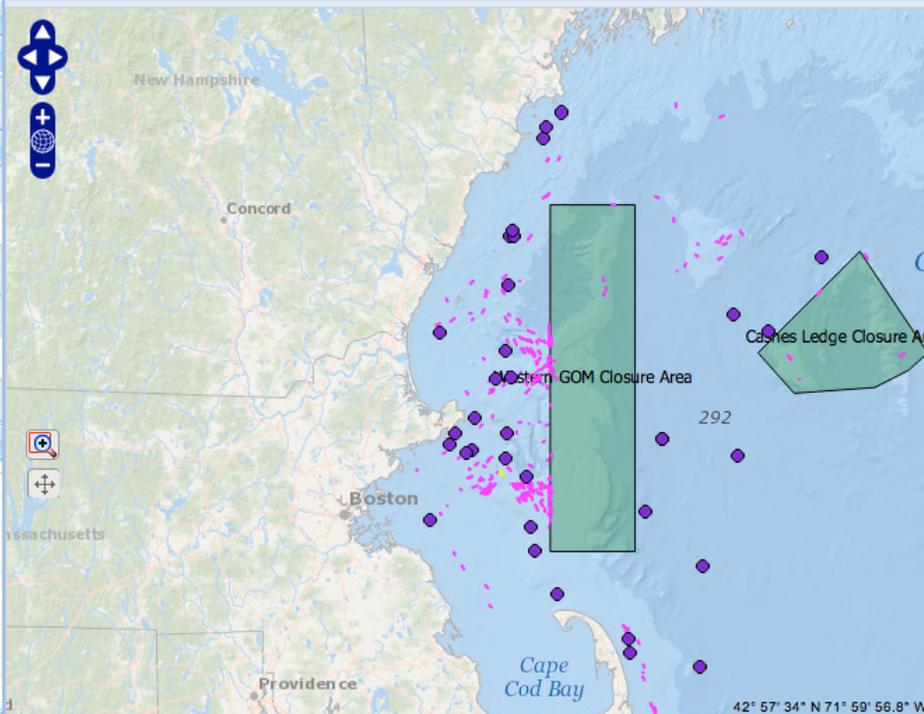
Northeast LORAN

Statistical Areas

HPTRP Stellwage...

HPTRP Mass Bay...

HPTRP Southern...



# Mock Data Entry

## FAST Fishing Area Selectivity Tool

FAST MAP | REPORT SPECIES ENCOUNTER | PROJECT NEWS

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### FAST MAP

Collapse <<>>

**Base Map**

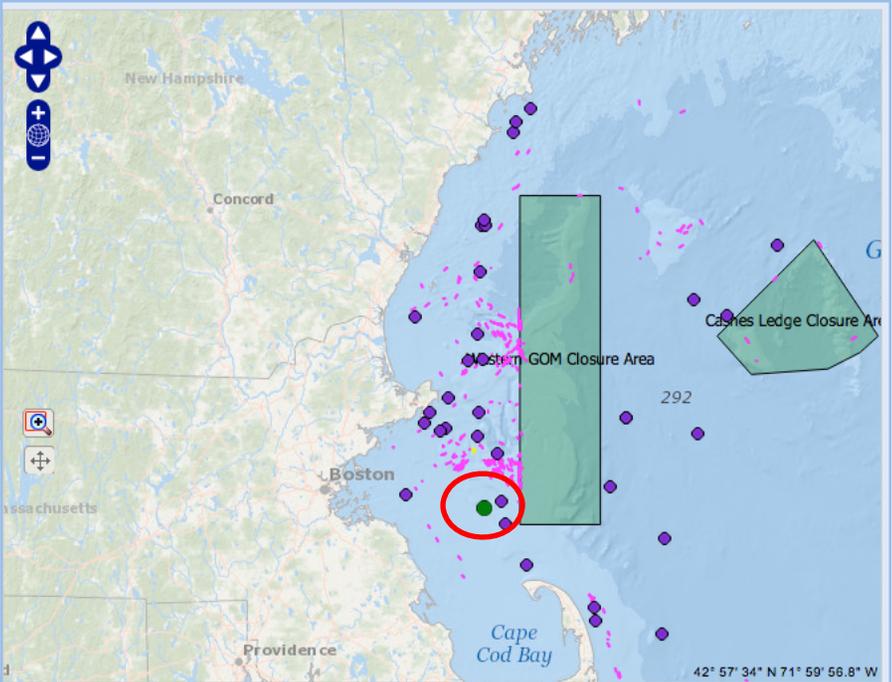
- ESRI Ocean Base...

**Sightings and Takes**

- Historical Takes
- FAST Species En... (circled in red)
- Historical Sighting...
- Closed Areas
- Management Are...
- Haque Line

**Geospatial Data Layers**

- Northeast LORAN
- Statistical Areas
- HPTRP Stellwage...
- HPTRP Mass Bay...
- HPTRP Southern...



The map displays the Gulf of Maine region, including parts of New Hampshire, Concord, Massachusetts, Boston, and Cape Cod Bay. Several green shaded areas represent closure zones: 'Western GOM Closure Area', 'Cashes Ledge Closure Area', and 'Eastern GOM Closure Area'. Numerous purple and pink points are scattered across the map, representing sightings and takes. A single green point is circled in red, corresponding to the 'FAST Species Encounters' layer selected in the legend. The legend on the left side of the map is also partially circled in red.

42° 57' 34" N 71° 59' 56.8" W

# Mock Data Entry

## FAST Fishing Area Selectivity Tool

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### FAST MAP

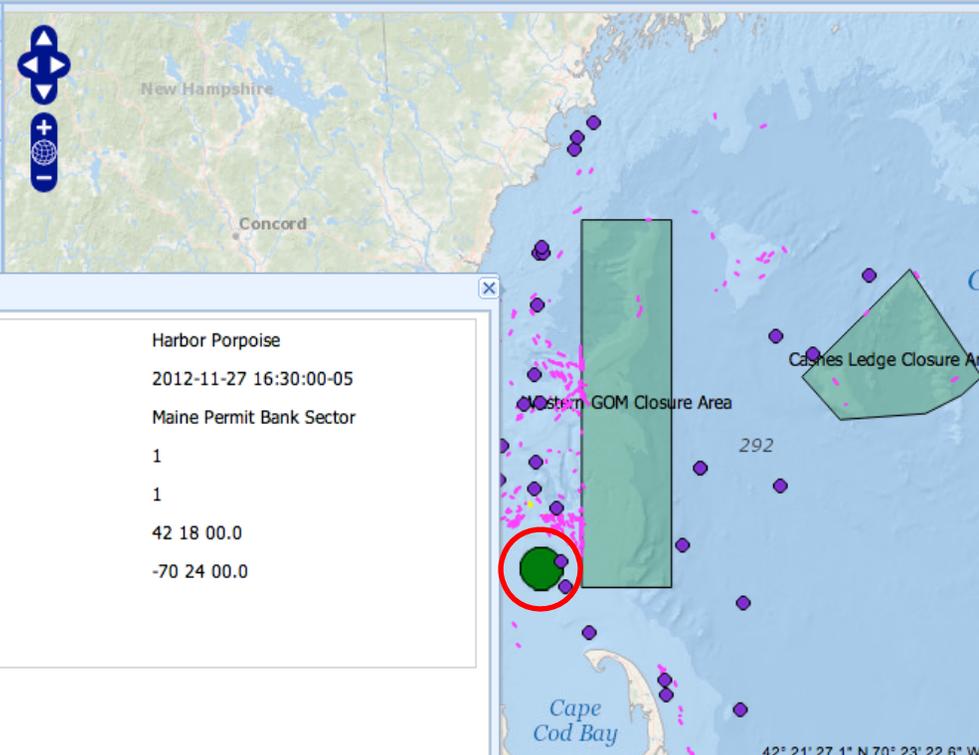
**Collapse** <<>>

**Base Map** ^

- [ESRI Ocean Base...](#)

**Sightings and Takes** ^

- [Historical Takes](#)
- [FAST Species En...](#)



**GMRI** [Close]

Species:	Harbor Porpoise
Date:	2012-11-27 16:30:00-05
Sector:	Maine Permit Bank Sector
Sightings this encounter:	1
Total Sightings for Maine Permit Bank Sector	1
Lat:	42 18 00.0
Lon:	-70 24 00.0
The moon was 14.1 days old, and waxing	
<a href="#">Edit Encounter Record</a>	

42° 21' 27.1" N 70° 23' 22.6" W

# Mock Data Entry

SMRI

Species:	Harbor Porpoise
Date:	2012-11-27 16:30:00-05
Sector:	Maine Permit Bank Sector
Sightings this encounter:	1
Total Sightings for Maine Permit Bank Sector	1
Lat:	42 18 00.0
Lon:	-70 24 00.0

The moon was 14.1 days old, and waxing

[Edit Encounter Record](#)

# Current Status, Next Steps, Future

- Current Status

- Beta testing - Functional Portal being used in pilot project
  - Sector managers set-up this week
  - Participating fishermen to follow

- Next Steps

- Operational tool ready for widespread use in late Spring of 2013
- Final report to NCRP in September of 2013

- Future?

- Continue the project beyond the grant period?
- Automate take and sighting information using at-sea data collection platforms?
- Platform to disseminate distribution models to industry?

Questions?