

# Recent Pelagic *Sargassum* Bloom in the Tropical North Atlantic

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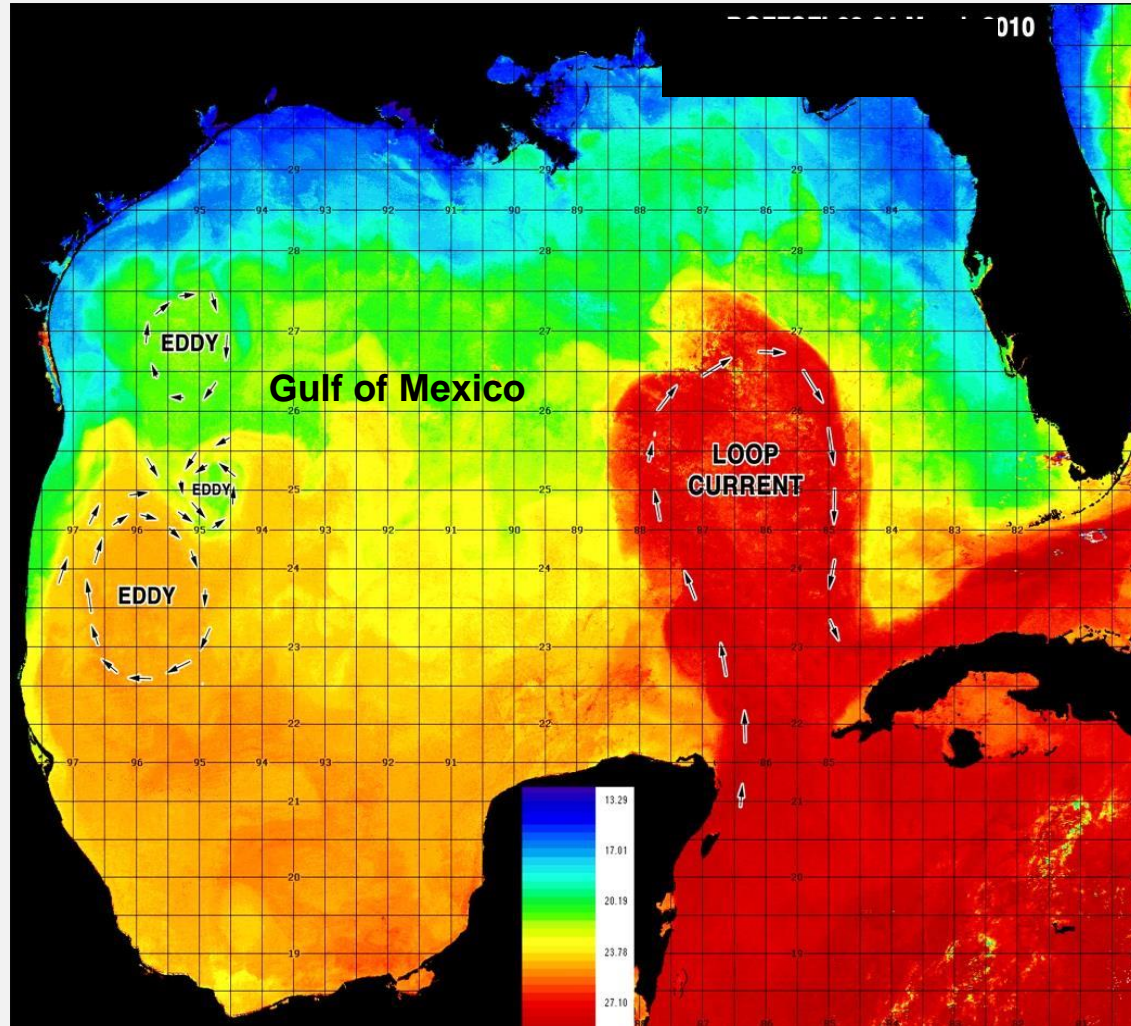
University of Southern Mississippi  
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Stennis Space Center

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# Loop Current and Associated Eddies



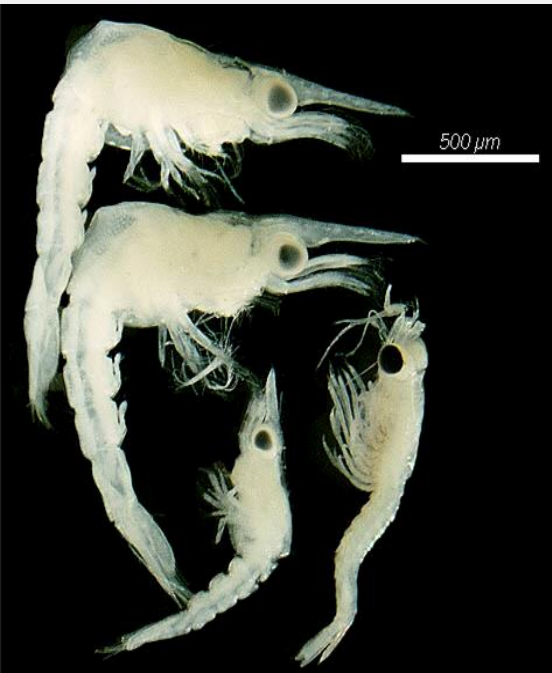


Bongo Nets

Neuston Net











Sailfish



Swordfish



# Pelagic *Sargassum* Influx in Tropical Atlantic Nations

**Mamora Bay, Antigua**  
**August 11, 2011**  
**Eli Fuller**



**Mustique Island, St Vincent & Grenadines**

**July 2014**

**Dianne Wilson**



**San Andrés, Colombia**

**Oct. 2014**

**Erick Castro**



# Sierra Leone August 2011



## Sierra Leone

Per: Andrew Huckbody  
Huckbody Environmental Ltd.

West African coastlines impacted by *Sargassum* in 2011  
(Sierra Leone and Benin); first documented account.

# QUESTIONS

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- Why the mass influx of *Sargassum*; Why now?
- Source/origin?
- Transport into the region?
- Local/regional productivity/nuttrification event?
- Climate change?
- Duration: singular, annual or episodic event?

# Pelagic Sargassum Reporting Website

Gulf Coast Research Laboratory (GCRL) web site to accommodate the reporting of sargassum masses along Caribbean shorelines & in adjacent waters.

<http://www.usm.edu/gcrl/sargassum/sargassum.observation.form.php>

### Reporting Site: Pelagic Sargassum in the Caribbean

[Sargassum Reports Home](#)  
[Report an Observation](#)  
[Identification Guide](#)  
[Resources](#)


During 2011, massive quantities of pelagic sargassum occurred throughout the Caribbean, impacting aquatic resources, fisheries, shorelines, waterways, and tourism. There are indications that such an event may occur this year, 2014.

In the effort to better understand critical aspects of this phenomenon, this website serves as a data collection center to accommodate reports of large quantities of pelagic sargassum observed within the region during 2014. The website provides easy access for data entry and represents a service to those interested in contributing to the information database. Data provided to this site will be used by Gulf Coast Research Laboratory (GCRL) scientists and colleagues throughout the region to identify the source and examine the movements and causes of this extraordinary event.

Your participation is essential to this work. Please use [this form](#) to report your observations. Thank you.


#### Area of Interest

Click [here](#) to view the study area in a larger map.



#### Examples of Sargassum Observations

Click any image to see a larger version.



Sargassum line offshore photo by GCRL

Sargassum washed up on shore photo by Hazel Oxenford

## Report Caribbean Sargassum



[Quick Links](#)

### Reporting Site: Pelagic Sargassum in the Caribbean 2016

[Sargassum Reports Home](#)  
[Report an Observation](#)  
[Identification Guide](#)  
[Resources](#)

Please use this form to report details of your observations of sargassum during 2014. All inputs are not required.

Please report each observation separately. You may use this form to make multiple reports, both for multiple observations of the same sargassum mass and for observations of new sargassum masses.

*We will not share your email address and contact information without your permission.*

(Spam Check - This helps prevent robot software from using this form to submit spam.)  
 Please enter the number 7.

Date of observation (mm/dd/yyyy)

Country

Latitude (if available)

Longitude (if available)



Photo by GCRL

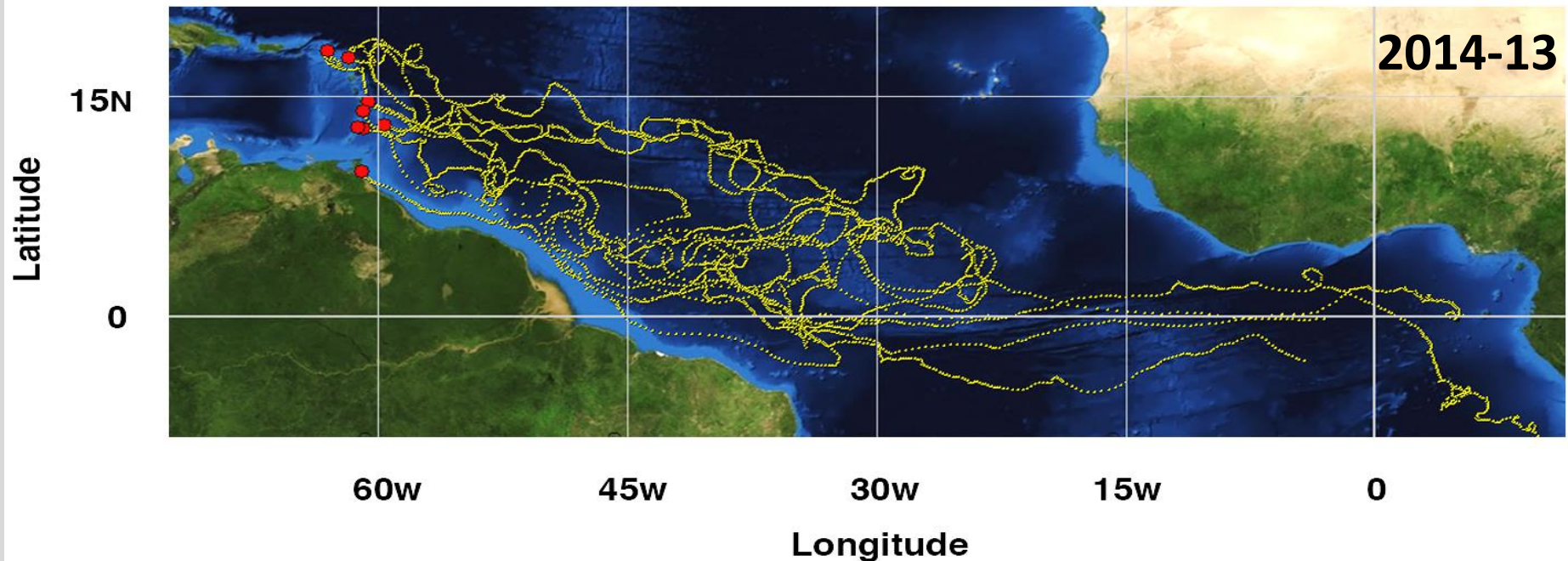
Description of location (Be as specific as possible. A distance and bearing to a well-known location are helpful.)

# Pelagic *Sargassum* Landings In Eastern Caribbean

## Backtracks for 1 Year using HYCOM ocean model



[www.usm.edu/gcrl/sargassum/sargassum.observation.form.php](http://www.usm.edu/gcrl/sargassum/sargassum.observation.form.php)

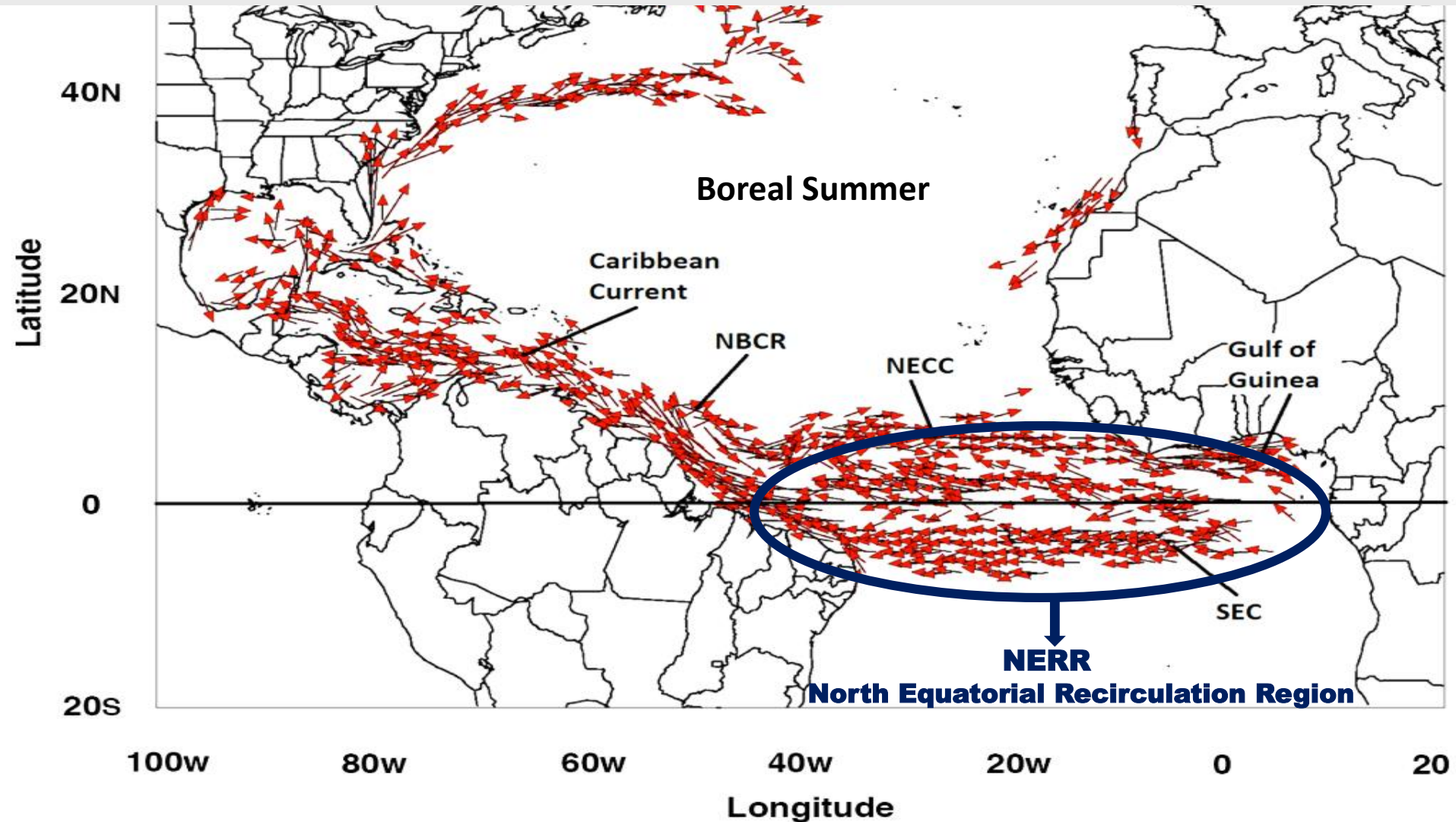




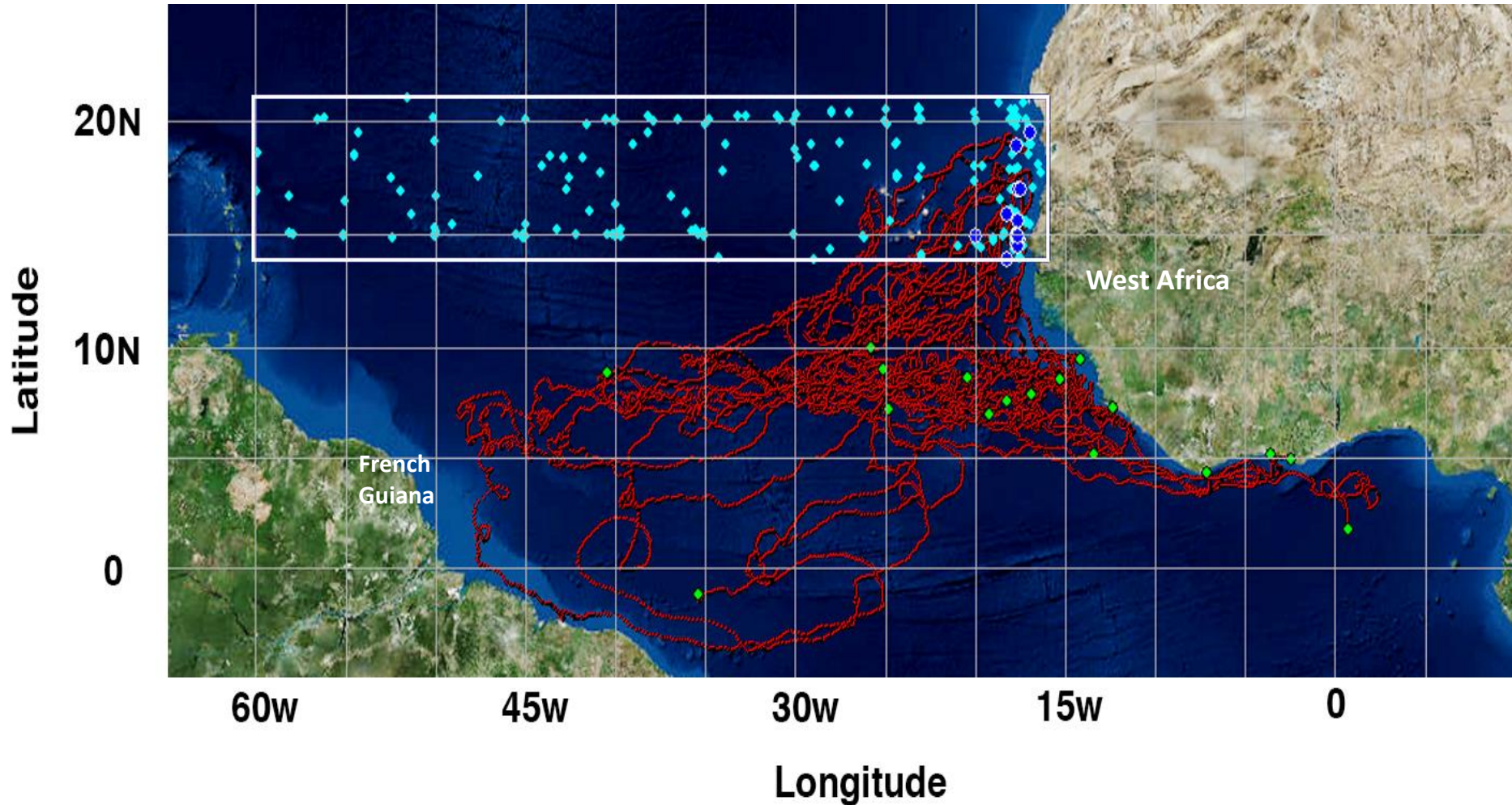
# North Atlantic Oceanic Connections

Vectors calculated from NOAA/AOML satellite drifters

1979-2014



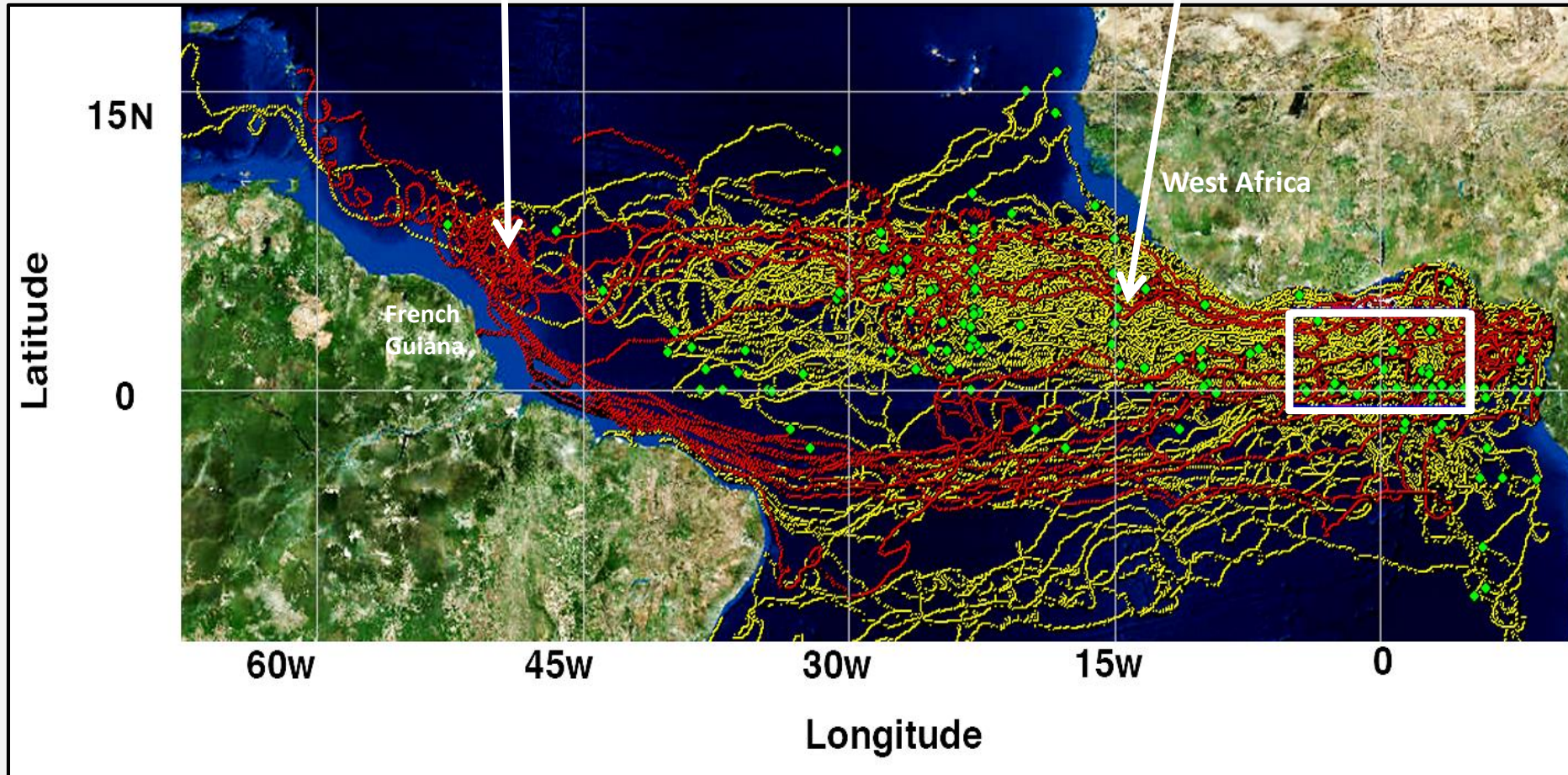
# Connection: NERR and North Atlantic Sargassum Arrived in the NERR from Where?



Satellite surface drifters released 1979-2014

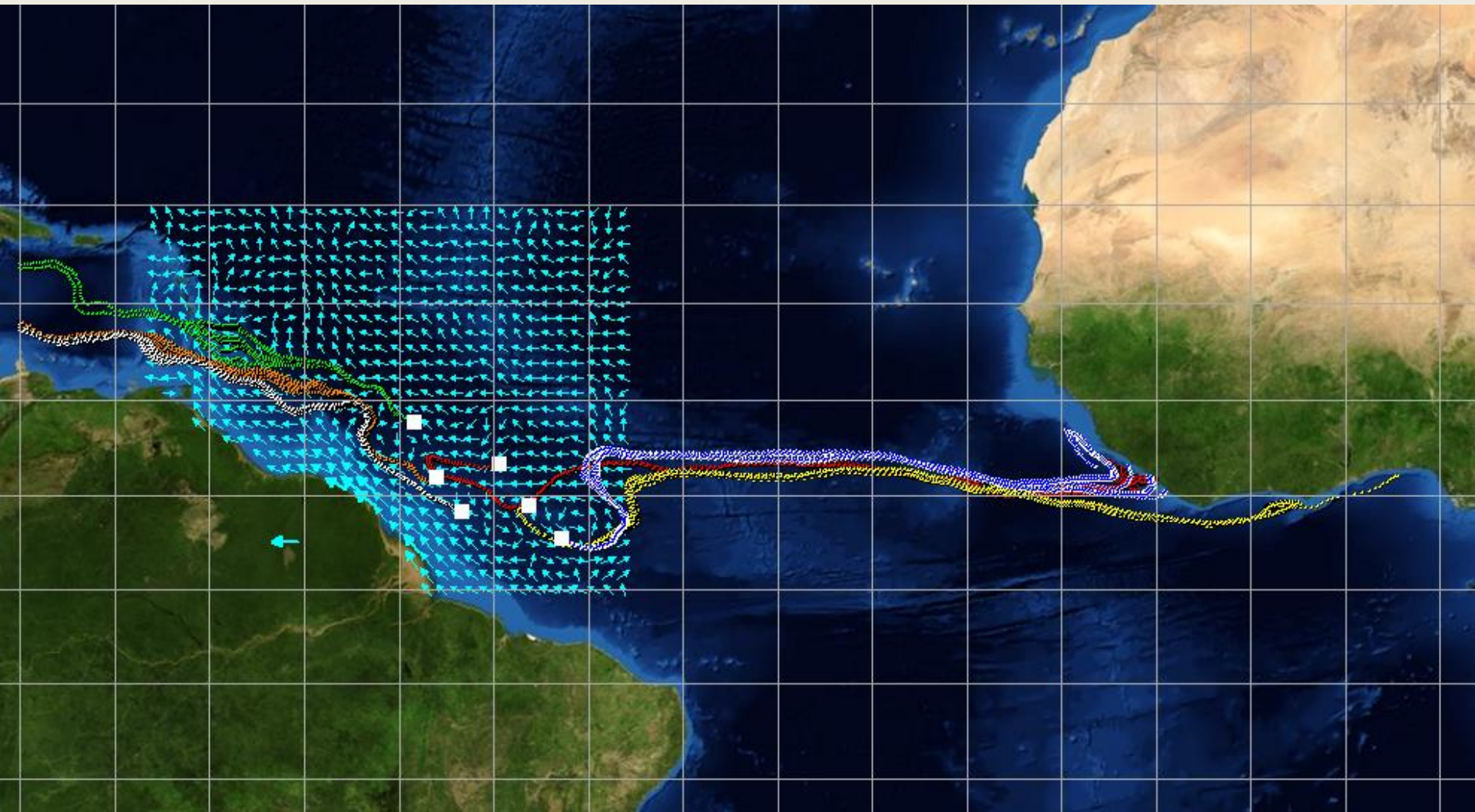
Consolidation region

Consolidation region

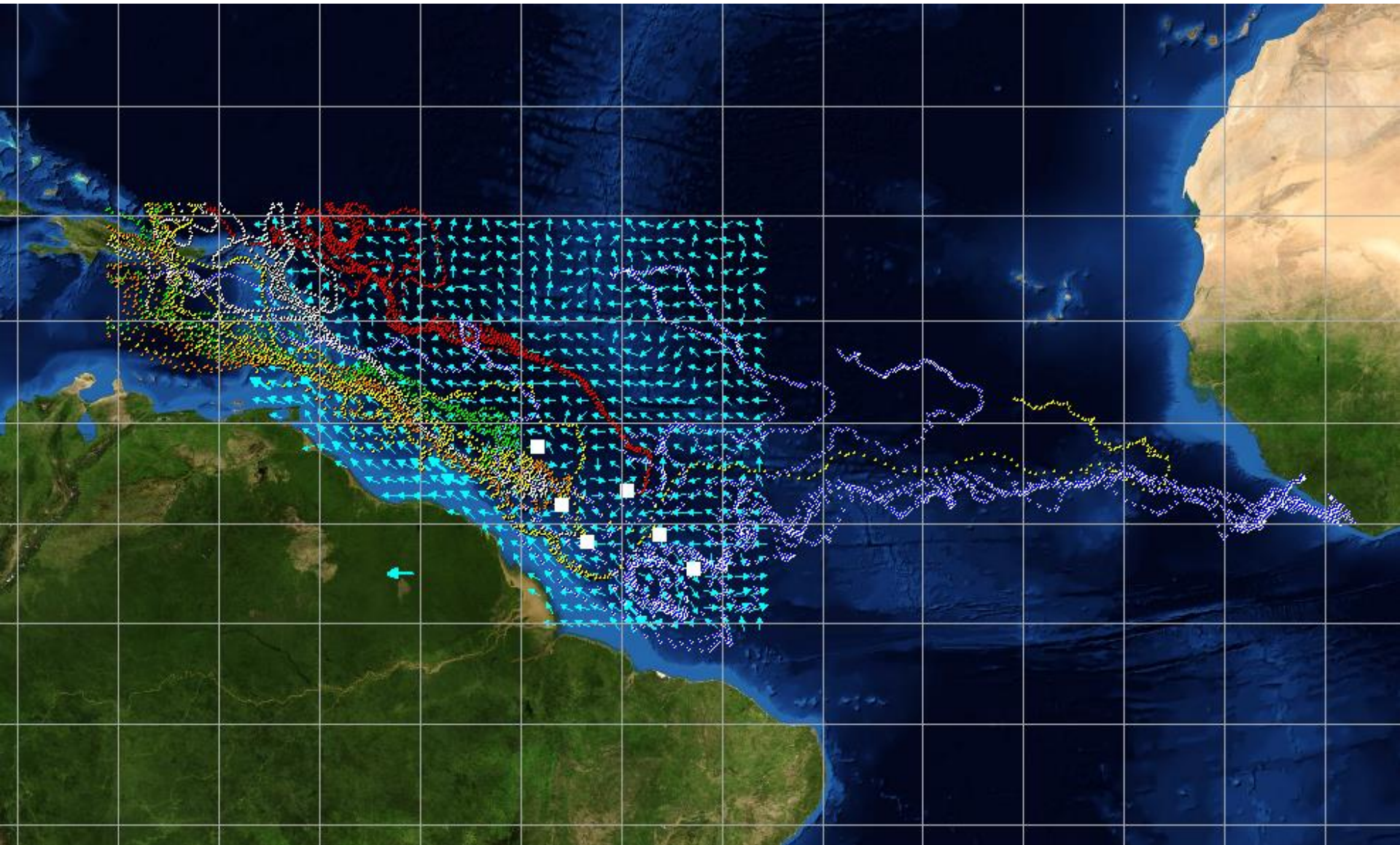


- Satellite surface drifters released 1979-2014
- Validated backtrack model results
- NERR: Recirculation, Retention, Growth

# Invasion Prediction Using Drifter Currents And starting locations from C. Hu May 2011



# Using HYCOM currents



# ACKNOWLEDGMENTS

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- NOAA NMFS, DOI, MDMR
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- Association of Caribbean Fisherfolk