

Photo credit: NOAA, TPWD, FWRI, WHOI

Issue 15 March 2016



# NOAA HAB-OFS Newsletter

Welcome to the NOAA HAB-OFS Quarterly Newsletter. We are always happy to hear from you so please send your topic suggestions, questions, comments and feedback to [hab@noaa.gov](mailto:hab@noaa.gov).

## In this issue:

- HAB-OFS Team Presents at 2016 Ocean Sciences Meeting
- *Karenia brevis* Bloom Reaches South To Keys

## HAB-OFS Team Presents at 2016 Ocean Sciences Meeting in the Crescent City

Karen Kavanaugh, Product Coordinator for the NOAA HAB-OFS group, recently participated in the [2016 Ocean Sciences Meeting](#) held from February 21-26 in New Orleans, LA (aka the Crescent City). The annual Ocean Sciences Meeting is cosponsored by the American Geophysical Union, Association for the Sciences of Limnology and Oceanography, and The Oceanography Society. The conference was attended by nearly 4000 people involved in a broad spectrum of oceanography topics from microbiology to modeling physical and ecological processes to instrumentation and remote sensing technologies.

On the second day of the conference the session “Oceans and Human Health: Improving Ecological Forecasting of Marine Microbes” was held, exploring the global advances made to forecast marine microorganisms ranging from harmful algal blooms to pathogens. As part of the session, Karen presented a poster entitled “[From Research to Operations: Transitioning NOAA’s Lake Erie Harmful Algal Bloom Forecast System](#)”. The poster highlighted the distinct process that NOAA follows to facilitate the progression of research projects towards operations, defined by NOAA as “sustained, systematic, reliable, and robust mission activities with an institutional commitment to deliver specified products and services” ([NOAA Administrative Order 216-115](#)). The initial research and development phases have been completed for the Lake Erie HAB Forecast System, and over the next two years, NOAA will be working to operationalize the system.

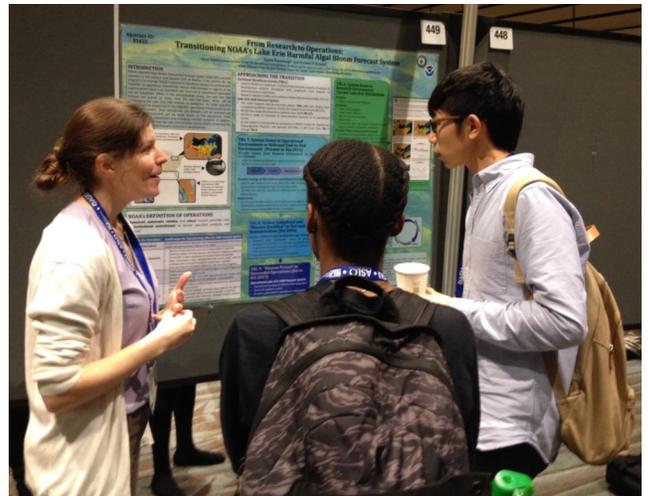


Figure 1. HAB-OFS Product Coordinator, Karen Kavanaugh, discusses NOAA’s efforts to transition the Lake Erie HAB-OFS to operations during an Ecological Forecasting poster session.

The topic of transitioning research was also a key component of a town hall that was led by NOAA’s Chief Scientist, Dr. Richard Spinrad, entitled “NOAA’s Research and Development Enterprise”. While calling out the successful transition to operations of the Florida HAB Forecast System in 2004, Dr. Spinrad acknowledged that the transition process for NOAA has historically been lengthy and challenging. He discussed NOAA’s evolving strategy for accelerating the crossing from research concepts to fully mature applications or operational products. This new focus will mean additional support for applied research, which may help move regional HAB forecasting efforts forward throughout the country.

Stay tuned for more information on the Lake Erie HAB Forecast System in the June issue of the HAB-OFS newsletter.

## On the Move: Remaining *Karenia brevis* Bloom Reaches South to the Keys

As we move into early spring, *Karenia brevis* bloom activity continues along the southwest coast of Florida. In our [last issue](#), we provided a bloom status update for three blooms that were identified simultaneously in Texas and Florida last September. Since this last update, the blooms in Texas and northwest Florida have dissipated. The Texas bloom

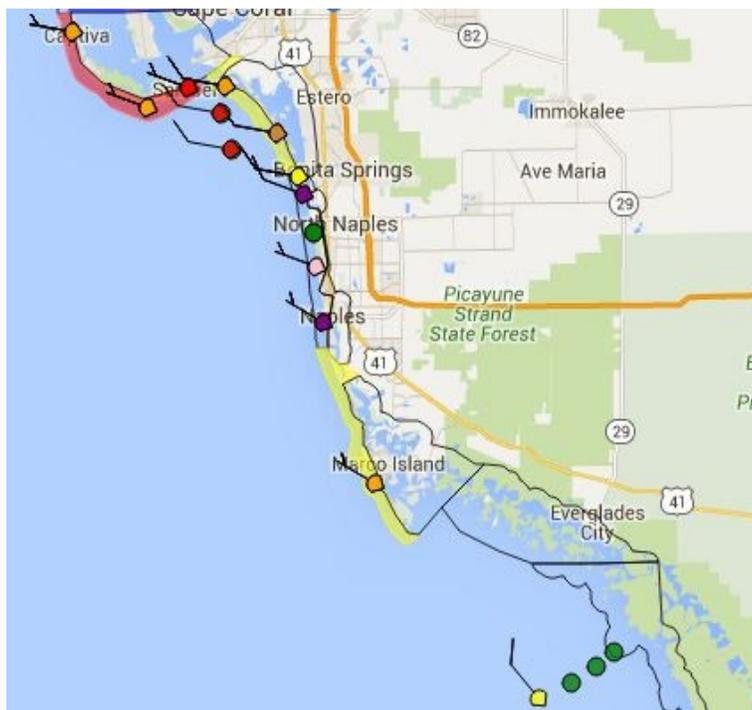
(continued on page 2)

was first identified alongshore Mustang Island and eventually extended from Galveston Island to beyond the US/Mexico border, finally dissipating in late November. In northwest Florida, the bloom that was originally identified in Gulf County slowly expanded westward, with up to “high” *K. brevis* concentrations extending as far as Alabama, Mississippi, and Louisiana (an uncommon occurrence) before dissipating around mid-January. Both blooms caused respiratory irritation, fish kills, and shellfish bed closures throughout their duration.

While the other blooms terminated months ago, *K. brevis* concentrations continued to linger alongshore southwest Florida, although they are now in the process of dissipating as well. As of our last issue, the bloom which was originally detected in Sarasota County extended primarily from southern Pinellas to Sarasota counties, with background to “very low” concentrations just beginning to pop up further south in Charlotte, Lee, and Collier counties. Onshore concentrations increased along the coast of southwest Florida moving into the New Year, with up to “medium” and “high” *K. brevis* concentrations covering the coastline from Pinellas to southern Lee counties throughout January and into early February. With abundant “high” *K. brevis* concentrations, reports of respiratory irritation from “slight” to “intense” were numerous. Beginning around mid-February concentrations alongshore southwest Florida began to dissipate considerably as they continued their move southward, with up to “medium” concentrations identified offshore Pavilion Key in Monroe County and “very low” to “low” concentrations detected offshore the lower Florida Keys in late February. Currently, concentrations appear to have dissipated alongshore mainland southwest Florida as well as within the Florida Keys, with only a handful of background to very low concentrations detected over the past few weeks. Impacts were reported, including fish kills along Monroe County, as recently as a few weeks ago, but it’s likely that we are seeing the end of the bloom for southwest Florida.

In addition to weekly to daily respiratory irritation reports throughout the height of the bloom, the bloom has caused numerous fish kills, shellfish bed closures, and several Manatee deaths. As of March 21, the HAB-OFS has issued 54 bulletins, 26 conditions updates, and 79 NWS Beach Hazard Statements for the southwest Florida red tide event since bloom initiation and has fielded more communications regarding respiratory irritation, observations, and health concerns than in any other season.

March came in more like a lamb than a lion for red tide, and we can only hope this trend will continue with full bloom dissipation in sight! Keep reading our bulletins for updates.



**Figure 2.** The HAB-OFS forecasting software “HABIT” showing estimated respiratory irritation in Lee and Collier counties in mid-February.

---

### Many Thanks to our Partners and Data Providers

<http://tidesandcurrents.noaa.gov/hab/contributors.html>

***This newsletter was written and designed by:***

NOAA/National Ocean Service  
Center for Operational Oceanographic Products and Services (CO-OPS)  
National Center for Coastal Ocean Science (NCCOS)

***Please send us your feedback and topic suggestions:***

Email: [hab@noaa.gov](mailto:hab@noaa.gov)  
Web: <http://tidesandcurrents.noaa.gov/hab>  
Facebook: <http://www.facebook.com/Habredtidewatchnoagov>

