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NOAA HAB-OFS Newsletter

Welcome to our 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.

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HAB-OFS Team Attends 7th Symposium on Harmful Algae in the U.S.

The NOAA HAB-OFS group recently participated in the 7th Symposium on Harmful Algae in the U.S., a conference exploring the latest findings and efforts in the field of harmful algae, hosted this year in Sarasota, FL by Mote Marine Lab and the Florida Fish and Wildlife Conservation Commission (FWC). The conference was attended by 215 scientists and stakeholders, representing 31 states, who are involved in the research, mitigation, and management of freshwater and saltwater harmful algae species, including *Karenia brevis*. The HAB group presented the results of statistical assessments of the bulletin products and public outreach efforts. A talk and poster was presented entitled “From Social Media to National Weather Service Products: Exploring New Outreach Tools for NOAA’s Harmful Algal Bloom Operational Forecast System”, which outlined the strategies NOAA has adopted to improve bulletin dissemination and subscriber feedback. Posters were also presented detailing the assessment of Texas and Florida forecast accuracy, skill, and bulletin utilization. The results of this analysis highlighted NOAA’s ability to forecast *K. brevis* bloom transport, intensification, and associated respiratory irritation with a high degree of accuracy and skill, but the need for additional data and feedback remains. The posters presented at the symposium can be found [here](#).

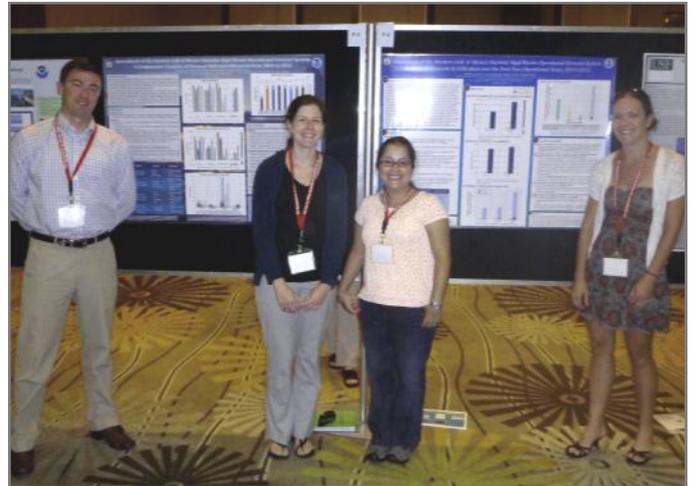


Figure 1. Members of the HAB team who presented at the Symposium posing in front of two of their posters. From left: Edward Davis, Karen Kavanaugh, Cristina Urizar and Kate Derner.

While at the conference, NOAA HAB-OFS scientists learned about ongoing *K. brevis* research with potential applications to the forecast system. For example, Lisa Campbell, a researcher at Texas A&M University, presented findings indicating that *K. brevis* toxicity may be influenced by oceanographic variables such as salinity. Additional research provided evidence that Texas *K. brevis* blooms may originate in Mexico. The team also had the opportunity to meet with several Florida and Texas bulletin subscribers in attendance to discuss the effectiveness of the HAB bulletin, NWS Beach Hazards Statements, and public outreach efforts. Among those providing feedback, Andy Reich, the coordinator of the Florida Department of Health Aquatic Toxins Program, gave us valuable insight regarding the way he uses and disseminates bulletin information.

Coincidentally, on the third day of the conference, medium-level concentrations of *K. brevis* were identified from samples in southern Sarasota County, just 30 miles south of the symposium. The team was able to confer with experts from Mote Marine Lab and FWC present at the conference. Once it was decided that a high-priority supplemental bulletin was appropriate, HAB team analysts began analyzing available data and creating the forecasts.

Information and insights gained from meetings, presentations and conversations at the conference will guide improvements to the forecast system, forecast accuracy, and bulletin dissemination. For more information about the conference, see what [Mote Marine Lab](#) and [The Tampa Tribune](#) had to say.

A Short-Lived Bloom for Texas this Fall

This year's *Karenia brevis* bloom season in the Gulf of Mexico began with a quick one-month bloom along the coast of Texas that dissipated almost as quickly as it emerged. Following reports of respiratory irritation received from Galveston Island and Surfside Beach, on August 27-28, the Texas Parks and Wildlife Department collected water samples identifying background to medium *Karenia brevis* concentrations (up to 1,000,000 cells/L) alongshore the Galveston region from Bolivar Pass to San Luis Pass and within Galveston Bay. Discolored water was also reported within the Galveston Ship Channel and Yacht Basin. Less than a week later, low to medium concentrations were also identified alongshore the Padre Island National Seashore, and on September 12, Texas A&M University's [Imaging FlowCytobot](#) began detecting increasing concentrations of *K. brevis* within the Port Aransas ship channel. Continued sampling throughout September indicated diminishing cell concentrations in all regions, with the bloom completely dissipating in late September. Other than the first week of the bloom, no additional reports of impacts, including respiratory irritation, dead fish, or discolored water, were received throughout the remainder of the bloom period. Less than a month after this short-lived bloom terminated, the HAB-OFS analysts have begun providing forecasts for the bloom developing along the coast of southwest Florida.

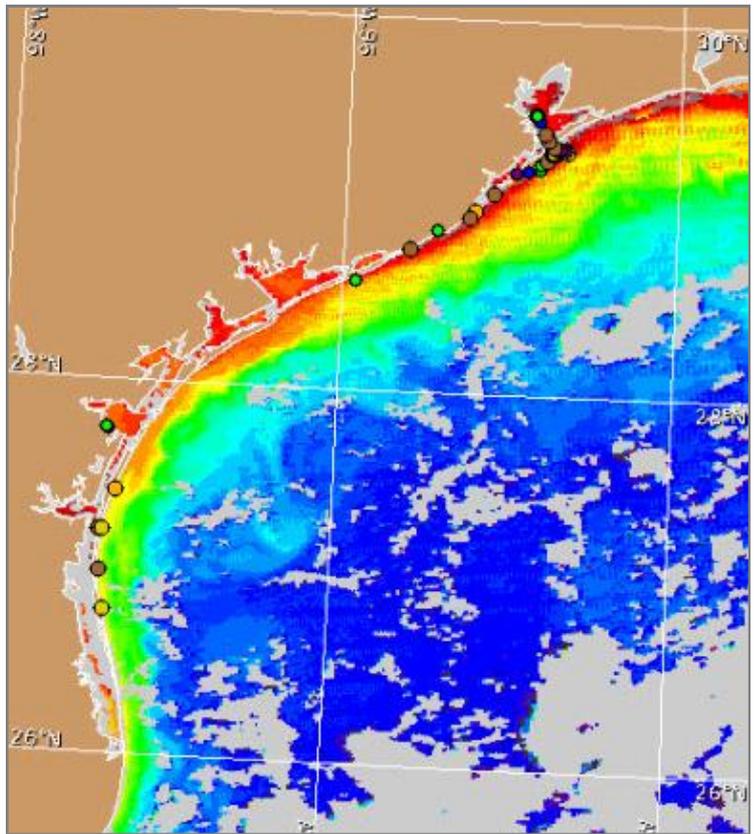
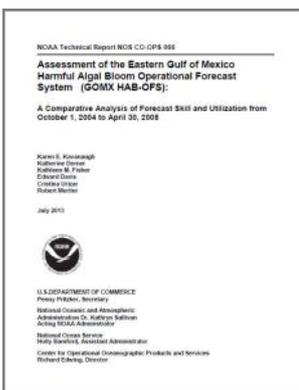


Figure 2. MODIS AQUA ocean color satellite image from 9/3 showing elevated chlorophyll concentrations along the Texas coastline with low to medium *K. brevis* sample concentrations in the Galveston and Padre Island National Seashore regions.

NOAA Technical Report Published Assessing the Florida HAB-OFS from 2004-2008



The HAB team is pleased to announce that a NOAA technical report has been published detailing the results of an evaluation of HAB-OFS bulletins issued for Florida entitled "[Assessment of the Eastern Gulf of Mexico Harmful Algal Bloom Operational Forecast System \(GOMX HAB-OFS\): A Comparative Analysis of Forecast Skill and Utilization from October 1, 2004 to April 30, 2008](#)".

You can find a summary of the report in the [August 2013](#) issue of our HAB-OFS newsletter. The results of this assessment will be used to guide enhancements to the operational forecast system with the goal of improving forecast quality through increased scientific understanding and the refinement of current forecast models.

To request a paper copy, please contact us at hab@noaa.gov.

Many Thanks to our Partners and Data Providers

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

This newsletter was written and designed by:

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