

HAB Liaison Engagement in Florida

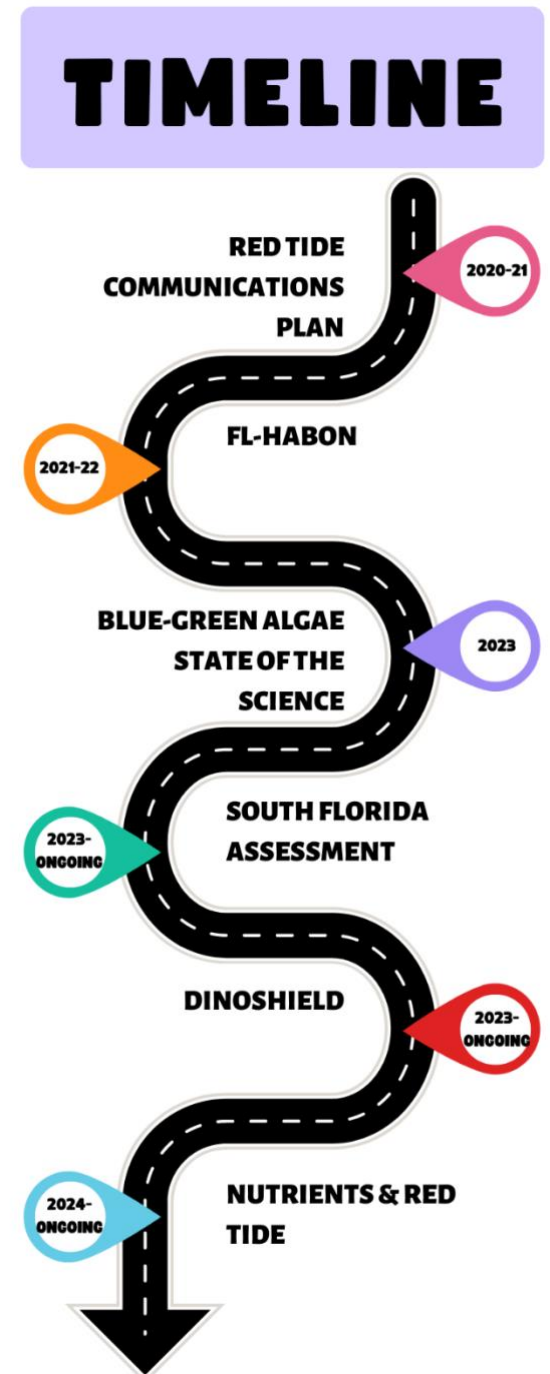
Key Project Partners: NOAA NCCOS HAB-Forecasting Branch, Florida Sea Grant, GCOOS, Florida Fish and Wildlife Conservation Commission, Florida Department of Environmental Protection, Mote Marine Lab
Key Community Partners: USACOE, University of Delaware, NOAA NCCOS Cooperative Research Program, South Florida Water Mgmt. District, FGCU, USF, FAMU, Florida Dept. of Health

The state of Florida, renowned for its extensive coastline stretching over 8,400 miles of both freshwater and saltwater, faces significant challenges due to frequent blooms of harmful algae and cyanobacteria, commonly known as blue-green algae. Among these, two prominent occurrences are the red tide in the Gulf of Mexico, attributed to the marine dinoflagellate *Karenia brevis*, and cyanobacterial blooms dominated by *Microcystis aeruginosa* in Lake Okeechobee. These events gained considerable attention in 2018, locally and internationally, shedding light on the state's water quality issues due to their concurrent appearance, lasting duration, and severe impact. Consequently, Florida's governor declared two states of emergency to allocate essential resources for response, recovery, and mitigation efforts in affected counties. Executive Order 19-12 was also issued, establishing the Blue-Green Algae Task Force (BGATF) under the supervision of the Florida Department of Environmental Protection (DEP), and reinstating the Harmful Algal Bloom Task Force (HABTF) of the Florida Fish and Wildlife Conservation Commission (FWC) under F.S. 379.2271. These task forces were tasked with providing technical expertise to understand the root causes of these blooms and offer recommendations to minimize the adverse effects of cyanobacterial and red tide blooms, respectively.

The HAB liaison's professional reputation in the state of Florida is based on years of experience working here where she is widely regarded for bringing people together to discuss complex issues around HABs. Below are several examples of activities undertaken in Florida.

1) In 2021, Florida Sea Grant completed a Red Tide Communications Plan for the HABTF in which the liaison served as CoPI. The communications plan resulted from targeted surveys, focus groups and a literature review. The red tide communications plan aligns practitioners (i.e. agency) needs with end-user (i.e. resident and visitor) wants by developing a better social science understanding of preferred red tide information, formats, and delivery modes. Nine white papers associated with this project were produced. The following four were co-authored by the liaison.

- SGR-144: [Insights from Natural Resources and Public Health Professionals on Key Elements of Red Tide Messaging and Modes of Communication](#)
- SGR-145: [Insights from Tourism, Media, Small Business, Hospitality Industry and Public Information Officer Professionals on key Elements of Red Tide Messaging and Modes of Communication](#)



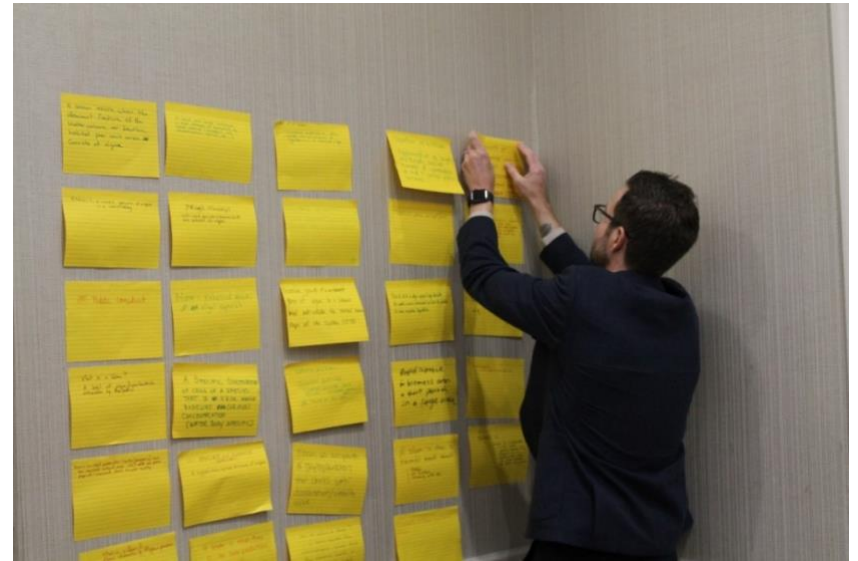
- SGR-146: [Insights from the Public on Key Elements of Red Tide Messaging and Modes of Communication](#)
- SGR-148: [Developing a Communications Plan for Red Tides in Florida](#)

Following the development of the Communications Plan, a communications working group was formed to implement major findings.

2) Building on a 2019 Harmful Algal Bloom State of the Science Symposium, convened by Florida Sea Grant, in 2023, a Blue-Green Algae State of the Science Symposium II was organized; the liaison served as co-chair. Over 50 scientists attended the two-day symposium during which time progress since the first symposium was evaluated, consensus determined, and research priorities identified across 5 session themes. The state of the science for two cyanobacteria emerging issues were also assessed. Additionally, best practices for data management, sharing, and incorporating social science research were determined. This project conducted at the request of the BGATF resulted in a [white paper](#) and [manuscript](#).

3) Also in 2023, the liaison, as a member of the Interagency Working Group on Harmful Algal Blooms and Hypoxia Research and Control Act (IWG-HABHRCA), organized three listening sessions in South Florida to obtain input on a congressionally mandated South Florida Assessment. Listening sessions occurred in three areas within the study region over a one-week period and provided insight which was incorporated into the draft assessment submitted to Congress. A final assessment is due in 2025. Additionally, in 2024, the liaison co-lead the development of a regional vignette on the Gulf of Mexico as part of the HABHRCA National Assessment to congress. The Gulf of Mexico Vignette is one of nine prepared by the Interagency Working Group for HABHRCA with each providing a general description of the region, a summary of the major HABs and Hypoxia issues, and the federal activities undertaken (projects and programs) in the region.

4) The liaison has assisted state and federal partners with their ongoing priorities as well. In 2021-22 the liaison supported the Florida Fish and Wildlife Conservation Commission as a member of the steering committee organizing an inaugural Florida Harmful Algal Bloom Observing Network (FL-HABON) workshop, a research priority of the HABTF. The liaison was one of three keynote speakers and facilitated a session in which participants ranked research priorities. And in 2024, the liaison working with researchers from NOAA NCCOS, the University of Delaware, and the U.S. Army



Blue-Green Algae State of the Science Symposium activity



South Florida Assessment Listening Session

Testimonial: "Very effective workshop. I have a much better understanding of the application now." DinoSHIELD Workshop Participant

Corp of Engineers (USACOE) co-organized workshops to obtain input on a potential red tide mitigation approach called DinoSHIELD. Six workshops were held in three locations in southwest Florida to share information about the technology, plans for a field demonstration and to obtain input that could lead to future research. The workshop targeted research, natural resource management, public health, advocacy, and aquaculture professionals and included educational videos and pre-post-survey.

5) Additionally, in 2024 the liaison is co-organizing a State of the Science Symposium focused on nutrients and red tide. This symposium is being organized at the request of the HABTF and will occur in April 2025. The liaison serves as co-chair.