

Outlook of 2023 Sargassum blooms in the Caribbean Sea and Gulf of Mexico* December 5, 2023, by University of South Florida Optical Oceanography Lab (bbarnes4@usf.edu, yuyuan@usf.edu, huc@usf.edu)



The maps below show *Sargassum* abundance, with warm colors representing higher values. Overall, as predicted last month, the *Sargassum* quantity in the central Atlantic was essentially stable from October to November 2023, with the wet weight of *Sargassum* detected during November being just over 1 million metric tons. Almost the entirety of this biomass was located in the interior central Atlantic (geographically between 1000 km east of the Caribbean Sea and 700 km west of the western Africa coastline).

Minimal *Sargassum* was observed in the Caribbean Sea [CS] or Gulf of Mexico [GoM], with approximate biomass densities of 15 thousand tons and 1 thousand tons, respectively. While we expect very little *Sargassum* presence during this time of year, these values are among the lowest recorded in November during the modern Great Atlantic *Sargassum* Belt era (since 2011).

Looking ahead: In December, the *Sargassum* abundance within the central Atlantic will likely begin to increase. This increased biomass will remain far offshore, largely keeping within the current geographic distribution (interior central Atlantic). We will certainly see increases in *Sargassum* abundance and distribution into the first few months of 2024, but the longer-term extent of the 2024 bloom is unclear. However, the closest historical analogs to the November 2023 condition were observed in 2017 and 2020, both of which preceded major blooms. As such, we will closely monitor and track *Sargassum* throughout the central Atlantic, and will provide more summary updates in early 2024. Meanwhile, daily updates through near real-time imagery can be found under the *Sargassum* Watch System (SaWS, https://optics.marine.usf.edu/projects/saws.html).



Disclaimer: The information bulletin is meant to provide a general outlook of current bloom condition and future bloom probability for the Caribbean Sea. By no means should it be used for commercial purpose, or used for predicting bloom conditions for a specific location or beach. The authors of this bulletin, as well as USF and NASA, take no responsibility for improper use or interpretation of the bulletin.