

Outlook of 2023 Sargassum blooms in the Caribbean Sea and Gulf of Mexico* May 31, 2023, by University of South Florida Optical Oceanography Lab (bbarnes4@usf.edu, yuyuan@usf.edu, huc@usf.edu)

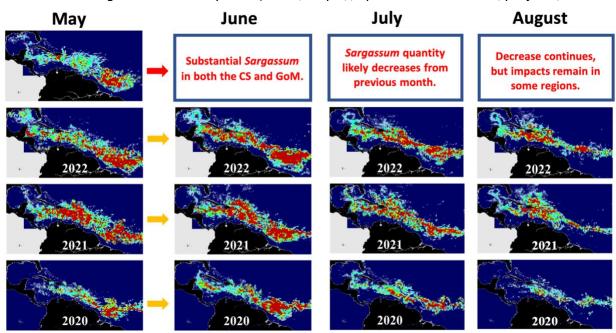


The maps below show *Sargassum* abundance, with warm colors representing higher values. Overall, the *Sargassum* quantity in the Great Atlantic *Sargassum* Belt (extending from west Africa to the Gulf of Mexico) during the month of May 2023 **decreased** by 15% from that observed in April 2023. Such a decrease for this time of the year never occurred in history since the first year (2011) of the GASB. This is primarily due to a sharp decrease in the eastern Atlantic (not shown in the maps): from March to April, the *Sargassum* quantity was halved, and from April to May it was halved again. The reasons behind such a sharp decrease remain to be investigated. Elsewhere, *Sargassum* quantity increased slightly in the Central West Atlantic (CWA) and Gulf of Mexico (GoM) but decreased slightly in the Caribbean Sea (CS). Compared to the same month of 2011 – 2022, the quantity in these regions is still high, in either the top 50% percentile or the top 25% percentile.

The *Sargassum* aggregations in the CWA have continued to move westward with prevailing currents and winds. In the CS, most *Sargassum* was around the Lesser Antilles and along the southern coasts of Hispanola, Jamaica, Puerto Rico, and along the Mexican Caribbean coast. *Sargassum* aggregations were observed continuously along the Loop Current into the Straits of Florida.

Looking ahead, because of the unexpected sharp decrease in the eastern Atlantic and the relatively stable amount elsewhere, it is difficult to predict whether *Sargassum* quantity in the individual regions will increase or decrease, although the quantity will still remain to be relatively high as compared to historical values. One exception may be the GoM, where *Sargassum* quantity is likely to decrease in June, which should be good news to the residents along the Florida Keys and east coast of Florida. Nevertheless, impacts of *Sargassum* beaching events will continue to be felt throughout some of the CS and GoM coastal regions, although it is difficult to predict exact timing and location for individual beaching events.

We will continue to closely monitor and track *Sargassum* in each region, with more summary updates provided by the end of June 2023. 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.