

Outlook of 2023 Sargassum blooms in the Caribbean Sea and Gulf of Mexico\* July 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 July 2023 decreased substantially from June 2023, with a total wet weight of approximately 6 million metric tons. The vast majority of this biomass remains concentrated in the Central West Atlantic region (CWA; roughly 4 million tons) and Caribbean Sea (CS; ~1.5 million tons). Nevertheless, abundance in both of these regions is reduced from last month – by approximately 40% for the CWA, and by over 25% for the Caribbean Sea. All these decreases from June to July are in line with those seen in some of the recent years. In the Gulf of Mexico (GoM), the *Sargassum* quantity remained stable from June to July, also in line with what happened in some of recent years.

On the spatial distributions - over the last month, the *Sargassum* aggregations in the CWA have moved northwestward with prevailing currents and winds. *Sargassum* remaining in the CS is patchy, with most dense aggregations still along the northern margins of the Sea. Minimal *Sargassum* density was found in the western CS, although the abundance along the Yucatan coast and west of Jamaica increased slightly near the end of July. Similarly, *Sargassum* abundance in the GoM was below detectable limits at the beginning of this month (and end of June), yet has increased slightly in recent weeks due to the transport from the western CS, specifically along the Loop Current. Some of this may have already reached and will continue to reach the Florida Keys and possibly southeast coast of Florida, but the amount should be small.

**Looking ahead**, as the *Sargassum* growing season is now over, the overall decreases in abundance within the GoM, CS, and the CWA will all almost certainly continue. This trend will be welcomed throughout the region, but impacts to individual beaches will continue to be felt sporadically. We will continue to closely monitor and track *Sargassum* in each region, with more summary updates provided by the end of August 2023. Meanwhile, daily updates through near real-time imagery can be found under the *Sargassum* Watch System (SaWS, <u>https://optics.marine.usf.edu/projects/saws.html</u>).



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.