SARGASSUM

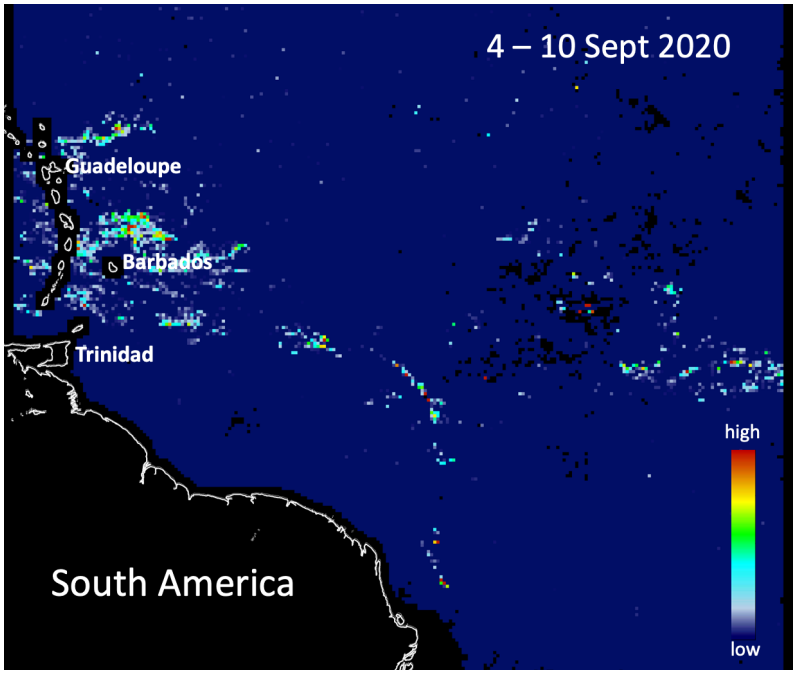
SUB-REGIONAL OUTLOOK BULLETIN

CERMES UWI | GCRL Fisheries | Food and Agriculture Organization of the United Nations

SEPT 2020 | VOL I | ISSUE 6

CARIBBEAN BIODIVERSITY FUND | Supported by: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety | KFW

based on a decision of the German Bundestag

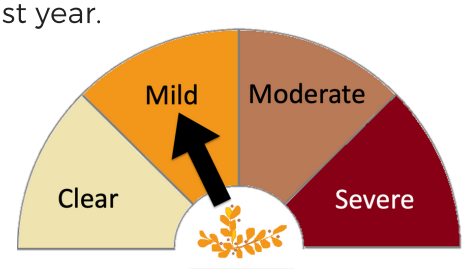


Sargassum image sourced from Optical Oceanography Laboratory USF.
Click on picture above to access the source image.

The map above is a satellite image processed to show sargassum abundance over a 7-day period. Warm colours represent high sargassum abundance. **Sa**rgassum **W**atch **S**ystem (**SaWS**) website: https://optics.marine.usf.edu/projects/saws.html

SARGASSUM INFLUX EVENTS WILL BE MILD TO MODERATE OVER THE NEXT 3+ MONTHS (SEPT-DEC 2020)

- The Eastern Caribbean islands have seen variable and moderate sargassum influxes over the third quarter of 2020 in the north, middle and southern islands. (**Click here**)
- The level of sargassum arriving has now decreased considerably.
- However, there is still 31% more sargassum visible out in the Atlantic than this time last year.

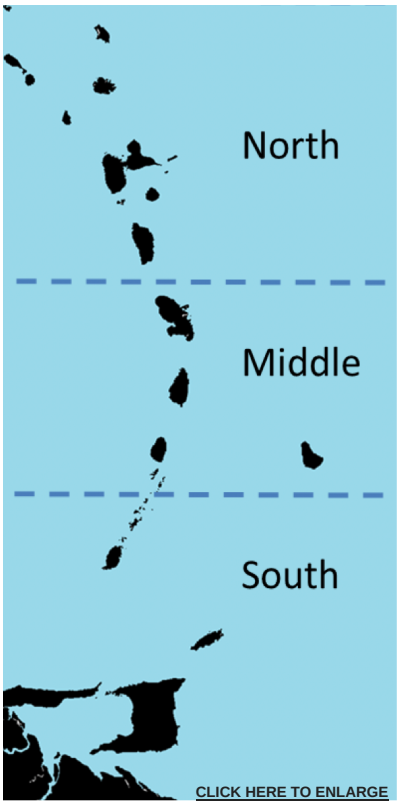


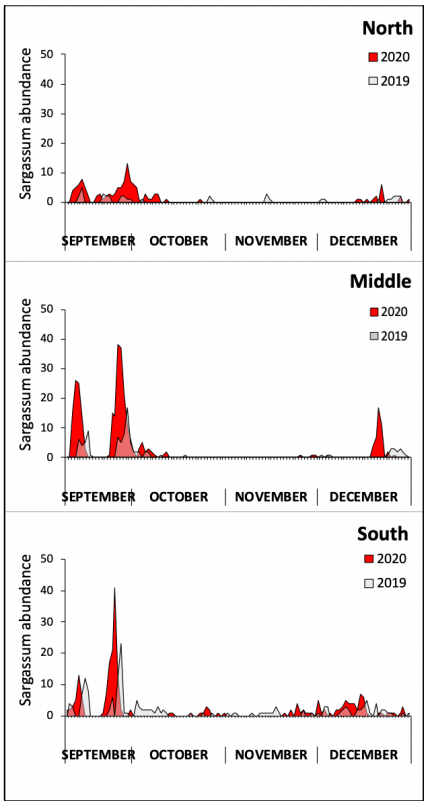
Sargassum abundance intensity level
(based on image 4 -10 Sept 2020)

CURRENT OUTLOOK (SEPTEMBER-DECEMBER 2020)

The islands of the Eastern Caribbean can expect sargassum influxes over the next 3+ months (red), especially when compared with the same period in 2019 (grey).

- Northern islands are set to receive mild to moderate influxes of sargassum until early October, and should be mild or clear until mid December when influxes will increase slightly.
- Middle islands are likely to continue experiencing moderate influxes through early October, and will be mild or clear until mid December when influxes will increase to moderate levels again.
- Southern islands are likely to continue experiencing moderate sargassum influxes to the end of September, and will be mild or clear until mid November when influxes will increase to mild levels.





IMPLICATIONS FOR THE TOURISM SECTOR

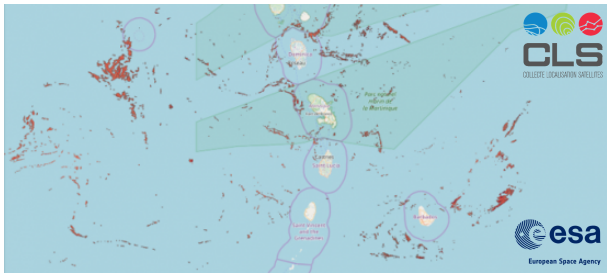
- Stakeholders in the tourism industry can expect more-or-less continuous mild to moderate sargassum influxes until early October in the northern islands. Islands in the middle and southern part of the island chain will continue to experience moderate influxes with a peak at the end of September.
- As the tourism industry begins to reopen gradually under the COVID-19 pandemic, maintenance crews will likely be needed to clear beaches and prepare for predicted sargassum arrivals in December at the start of the winter tourism season.

IMPLICATIONS FOR THE FISHERIES SECTOR

- The traditional pelagic fishing season will begin in November with low sargassum abundance, which could result in good flyingfish catches at the beginning of the season.
- Low sargassum abundance in Oct-Nov should prevent the temptation to catch dolphinfish juveniles!
- Fisherfolk will likely need to keep clearing their landing sites periodically until early October, and then will have an ease until mid December.

SPOTLIGHT ON SARGASSUM INNOVATION

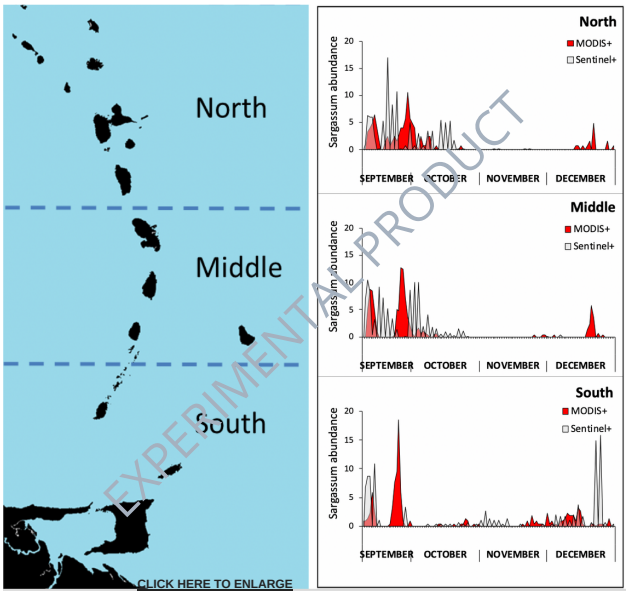
Sargassum Detection and Monitoring with SAMtool. Click here for more info.



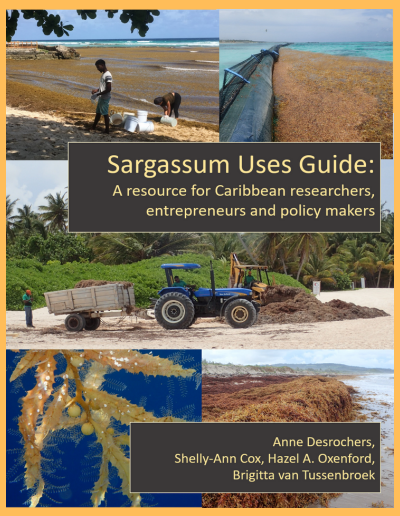
The prediction graph below illustrates a comparison of 3+ month forecasts using a *relative index* of sargassum from processed satellite images by SaWS (USF/MODIS+) and SAMtool (CLS/Sentinel+).

The forecast is a bit different between the two products because the high resolution Sentinel+ images are better able to detect sargassum in the cloudy equatorial region.

The Sentinel+ product shows influxes through to the end of October, and in the southern islands, a peak at the end of December that is not detected by the MODIS+ product.



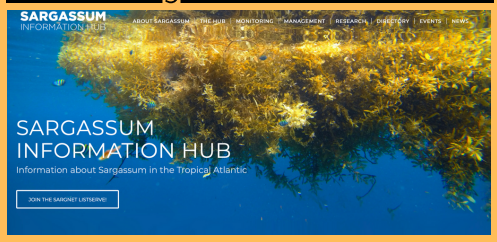
USEFUL RESOURCES



Click on the titles below to download resources

Sargassum Uses Guide: A resource for Caribbean researchers, entrepreneurs and policy makers (Draft working copy available here)

Visit the Sargassum Information Hub



Project SargAdapt Webpage.

LATEST PUBLICATIONS

Click on the titles below to access articles

Improving transport predictions of pelagic Sargassum. (Putman et al. 2020)

A minimal Maxey–Riley model for the drift of Sargassum rafts. (Beron-Vera and Miron 2020)

Clustering of marine-debris- and Sargassum-like drifters explained by inertial particle dynamics. (Miron et al. 2020)

Automatic Extraction of Sargassum Features From Sentinel-2 MSI Images. (Wang and Hu 2020)

Temporal changes in the composition and biomass of beached pelagic Sargassum species in the Mexican Caribbean. (García-Sanchez et al. 2020)

How do you deal with 9m tonnes of suffocating seaweed? (Guardian)

Pelagic Sargassum spp. capture CO2 and produce calcite. (Paraguay-Delgado et al. 2020)

SUBSCRIBE TO SARGNET LISTSERV (CLICK HERE)

Acknowledgement: The development of this information product has benefited from the generous support of the Food and Agriculture (FAO) / Global Environment Fund (GEF) project 'Climate Change Adaption in the Eastern Caribbean Fisheries Sector' (CC4FISH), and the Caribbean Biodiversity Fund (CBF) project 'Adapting to a new reality: managing responses to influxes of sargassum seaweed in the Eastern Caribbean (SargAdapt), co-financed by the International Climate Initiative (IKI) of the German Federal Ministry for Environment, Nature Conservation, and Nuclear Safety through KfW.