

Post-2011 variability of the great Atlantic *Sargassum* belt attributed to changing winds & currents

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- *Sargassum* has proliferated across the tropical Atlantic since 2011, consequential for communities across the region
- Drift away from source in the central Atlantic, where fractional area varies considerably from year to year
- In years of high areal fraction, the Intertropical Convergence Zone is shifted southward, towards nutrient-rich waters of the Amazon river plume and the equatorial upwelling zone.
- Further variation of nutrient supply, via advection and upwelling, is associated with anomalies of surface salinity (SMOS), currents (GODAS), winds (NCEP/NCAR) and chlorophyll (MODIS)
- Driving these shifts/anomalies, and extensive *Sargassum*, was a negative phase of the Atlantic Meridional Mode in 2015 and 2018, and a positive phase of the Atlantic Niño in 2018

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