Monitoring and forecasting pelagic Sargassum in the South Atlantic Bight

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Overview of the Project

Overarching goal: to develop and operate a high-resolution, Web-based system to monitor and forecast pelagic Sargassum in several coastal zones of the Florida Keys and South Atlantic Bight.

Year 1 objectives:
1. to develop and validate algorithms suitable for high-resolution satellite data to map and quantify Sargassum distribution and abundance
2. to generate prototype high-resolution imagery products to map and quantify Sargassum distribution and abundance
Accomplishments

- Developed algorithm to detect *Sargassum* on beaches and in nearshore waters from high-resolution (3-4 m) satellite imagery (Zhang et al., 2022)
- This will make it possible to monitor the beach environment

Miami Beach, 2019
Challenges and Looking Ahead

Challenges:
• Applicability for other beaches and nearshore environment
• Near real-time satellite data stream from the data provider
• Implementation for automatic production on the Web

Plans for next year:
• Further test and validate algorithm for general applicability
• Explore ways for near real-time satellite data downloading

Sargassum abundance
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