

How to Respond to a Sargassum Influx

In May 2018 the Gulf and Caribbean Fisheries Institute (GCFI) launched a new infographic guide for the tourism sector on to how to respond to the sargassum influx, and best practices to apply if cleaning beaches.

“Pelagic sargassum is a brown alga, or seaweed that floats free in the ocean and never attaches to the ocean floor. These free-floating forms are only found in the Atlantic Ocean. Sargassum provides refuge for migratory species and essential habitat for some 120 species of fish and more than 120 species of invertebrates. It’s an important nursery habitat that provides shelter and food for endangered species such as sea turtles and for commercially important species of fish such as tunas. There are two species of sargassum involved in the sargassum influx: *Sargassum natans* and *Sargassum fluitans*” (Doyle and Franks, 2015).



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Sargassum consolidates into large mats and travels on ocean currents. In recent years, massive quantities of pelagic sargassum have come ashore in the Caribbean, impacting shorelines and beaches, waterways, fisheries and tourism. “It is believed that the recent influxes are related to massive sargassum blooms occurring in particular areas of the Atlantic, not directly associated with the Sargasso Sea, where nutrients are available and temperatures are high” (Doyle and Franks, 2015).

The response to the sargassum influx has often been a knee-jerk reaction - uncoordinated and not always environmentally sustainable. Bad choices that are made in responding to sargassum place at risk the very resources upon which tourism depends – poor beach cleaning practices cause the loss of sandy beaches, worsened coastal erosion, the destruction of sea turtle and sea bird nests. But important lessons have been learned.

As the organizer of the region's largest annual marine science meeting, GCFI has brought together researchers and coastal managers to examine the latest advances in science and to share management experience in relation to this emerging issue. A GCFI Fact Sheet about the sargassum influx addresses frequently asked questions (Doyle and Franks, 2015). A briefing paper prepared with key regional partners provides guidance for coastal managers (Hinds et al. 2016). Now in early 2018, with an influx of sargassum again affecting parts of the Caribbean region, the GCFI is responding to the tourism sector's urgent need for information on how to deal with this recurring phenomenon (Doyle et al. 2018).

GCFI's sargassum factsheet and A2 poster can be downloaded here: <https://www.gcfi.org/sargassum-influx/>

A sargassum management briefing paper by key regional partners CERMES, SPAW-RAC and GCFI provides further guidance for coastal managers and can be downloaded here: https://www.cavehill.uwi.edu/cermes/getdoc/123bf91c-1565-414d-8e21-e59fb6f7ca2d/cermes_sargassum_management_brief_2016_o8_24.aspx

DCNA is currently working on a briefing paper on the sustainable management of sargassum with a focus on prevention and clean-up of bay habitats (including seagrass beds and mangroves). Input is most welcome. Please email: research@DCNAnature.org

Responding to a sargassum influx

If sargassum appears on your beach, what you do next can be good or bad for the beach and business. Important lessons have been learned so far.

Here's what you need to know

Sargassum is a natural seaweed that floats in the Atlantic Ocean.

It's an important home for marine life, like fish and sea turtles.

It's a problem only when it comes ashore in massive amounts.

A complaint is the smell of rotten egg gas as wet sargassum decomposes. There are potential health risks at high gas concentrations.

What should you do?

Communication is key!

Inform beach users about sargassum - manage their expectations.

Direct beach users to unaffected or clean beaches.

Agree how much sargassum justifies cleaning.

Determine which beaches will be cleaned.

Join with partners and share the job.

Organise wildlife patrollers to inspect for stranded sea creatures like sea turtle hatchlings, collect and release them with some sargassum into offshore currents.

Leave some sargassum for beach nourishment.

Keep in touch with local environmental agencies as forecasting models are in development.

Take care!

These actions cause serious harm to the beach.

- 1 Constant beach grooming
- 2 Removing sand from the beach or dunes
- 3 Heavy machinery used carelessly
- 4 Clearing or trampling beach vegetation
- 5 Driving above the high water mark and through sand dunes
- 6 Driving over sea turtle nests
- 7 Cleaning before patrollers - Let them check for signs of wildlife before you start cleaning!

If my beach looks like this...

No action required on this beach

Leave the sargassum alone - let nature run its course. Be patient - it will wash away or get buried. Rest assured - it will benefit your beach and save you money and effort.

Taking action?

Manual raking is the approach to take.

It's simple, low cost and environmentally friendly. Get communities involved in these beach clean-ups. Run educational scavenger hunts for sea creatures in sargassum.

Separate plastic pollution from sargassum for disposal. Transport using wheelbarrows, bags or tarpaulins and take to designated disposal areas.

Work with partners and plan a mechanical response

Take a multi-stage approach - remove upper layers of sargassum with machinery without touching the sand, then rake manually or run mechanical beach raking equipment.

Clean high usage areas first and leave other beaches for nature to clean.

Remove the sargassum as soon as possible after arrival to avoid vast accumulation.

Do's & Don'ts

Do's: Clean in daylight, Use same route on and off the beach, Consider public safety, Supervise use of machinery, Manual cleaning is preferred, Consider a horse-drawn trap, Use machines with large salt tires, Machines with a claw or rake are preferable, Clean at low tide, Keep equipment on damp sand in the tidal zone.

Don'ts: If using a bucket, don't gouge sand, Never use tractor or belted equipment, Don't clean near dunes, Use as much or compost - wash out salt first, New uses are being developed - like bio-stimulant and bio-fuel, Sargassum is not suitable for human consumption, NO-GO Areas: turtle and bird nests, Do not enter with cleaning equipment, Observe Patrol the beach searching for wildlife, Use mechanical beach raking equipment with pedestrian coverage bar.

how do we DISPOSE of sargassum?

Designate sites for the disposal of sargassum. Use sunny locations for drying and decomposition. Re-distribute sargassum to fill eroded beaches. For sea turtle nesting beaches, transport sargassum off-site, don't dump on dunes or nests.

Use as much or compost - wash out salt first. New uses are being developed - like bio-stimulant and bio-fuel. Sargassum is not suitable for human consumption.

For more information please contact: sargassum@gcfi.org

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