What is it?

Sargassum seaweed is a brown macro algae that is found within the North Atlantic Ocean. There are two species: the Common Gulfwood (*Sargassum natans*) and the Broad-toothed Gulfweed (*Sargassum fluitans*). Both species are entirely free floating (never attached to the seafloor during their lifecycle) with the assistance of air sacs that resembles berries. They also have no root system. Sargassum seaweed travels throughout the Caribbean region with the aid of currents, waves and tides.

Sargassum seaweed grows by fragmentation which is a form of cloning itself. Once their environment is favourable (temperature and nutrients) they have the ability to continue growing after its broken into pieces.

Benefits to Marine System

The Sargassum seaweed is a safe haven to 120 different marine species which include juvenile fishes, insects, invertebrates, endangered sea turtles, crabs, shrimps, birds and more. With the interconnecting contours of the seaweed, juvenile fish and other marine species are able to camouflage within the seaweed, hiding from predators until they are large enough to venture into the open ocean.

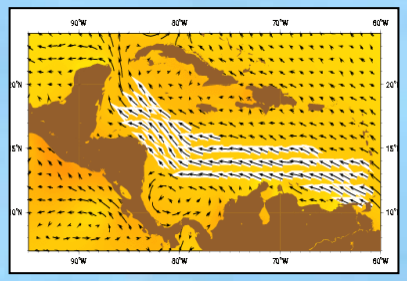
Where did it come from?

Sargassum seaweed can be found within the Sargasso sea within the North Atlantic. The area was named after the algae as it hosts large amounts of Sargassum. It is believed that the recent influxes are related to massive Sargassum blooms occurring in particular areas of the Brazilian coasts.

It is not directly associated with the Sargasso Sea. High sea surface temperatures, nutrients rich waters and upwelling conditions make the recent Sargassum bloom possible.

Decomposition of Sargassum Seaweed

Sargassum is a natural phenomenon and it poses no health risk to humans. Once washed upon the bays and coastline in large quantities, Sargassum seaweed is unable to dry thoroughly and it starts decomposing. During the decomposing process, the seaweed releases a gas called hydrogen sulfide. This is a colorless gas that



resembles the smell of rotten eggs. Sargassum's decomposition cycle lasts between 8-16 days. The gas is not harmful within an open environment but one might experience the symptoms of nausea, headaches and itchy eyes.

Benefits of Sargassum Seaweed to Marine Environment

- large pelagic species such as Mahi-mahi and tunas follow the seaweed, providing a great opportunity for big game fishing

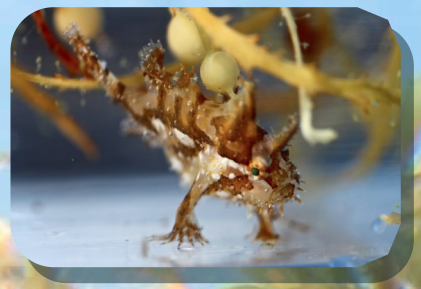
- The Sargassum sstabilizes the beach, preventing beach erosion
- provides nutrients to beach vegetation
- creates sand dunes
- potential for medical and pharmaceutical fields
- biofuel and landfill
- fertilizer and mulch for crops and animals

Negative Impacts of Sargassum Seaweed

- prolonged odor of the hydrogen sulfide as the seaweed is unable to properly decay on the coastline.
- entanglement of fishing gears and boat propellers.
- entrapment of turtle hatchlings making their way to the open ocean.
- it can adversely affect tourism.

What Can We Do?

- Participate in community clean-up in affected areas.
- Hotel owners and managers as well as beach front property owners should develop contingency plans.
- Take the opportunity to conduct a scavenger hunt within the seaweed, you might be able to find the rare Sargassum fish (also known as the frog fish).



Tips for Removing Sargassum from Beaches

Do's:

- Remember beaches are essential habitats for sea turtle nesting.
- Conduct clean up activities only when low tide occurs.
- Use light equipment. *Hand raking is preferred*
- Remove the top layers of the seaweed carefully without depleting the areas of all of the seaweed.
- Transport collected seaweed to the Department of Agriculture.

Don'ts:

- Harm sand dunes, vegetation, turtles and bird nesting sites.
- Constantly groom beaches as this will increase wind-blown sand which worsens erosion.
- Use heavy equipment on beaches as this contributes to the continual removal of sand.

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Sargassum Seaweed

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