

Sargassum & TURTLES

WHAT IS IT?

Sargassum is a type of floating brown algae

THE GOOD

At sea, it is highly beneficial to a wide range of marine life & birds

- Shelter & protection
- Food source
- Listed as *Essential Fish Habitat* (NOAA) for several open sea fish species and *Critical Habitat* (ESA) for the loggerhead sea turtle
- *Hatchling sea turtles swim offshore intercepting sargassum-dominated communities where they will spend the first few years of their lives adrift*

THE BAD

When sargassum washes ashore or stays submerged nearshore, **it can be hazardous to a wide range of life forms**

- Harmful brown tides smother flora, fauna, and coral reefs
 - Decreases dissolved oxygen and changes pH
 - Has high levels of arsenic, other heavy metals and organic contaminants
- Breaks down into tiny particles, impeding light that seagrass and coral need to survive
- Absorbs light and increases water and beach temperatures
- Decomposition releases hydrogen sulfide, a respiratory irritant for humans
- Acts as a physical barrier to hatchling sea turtles crawling to the ocean, as well as mother turtles coming ashore to lay eggs
 - Impedes their ability to navigate to open ocean

THE UGLY

Global increase in water temperatures and human-linked pollution are the cause of the over-abundance

- Increased nutrient input from land-based sources fuel blooms (agricultural runoff, industrial and municipal wastewater, deforestation)
- Changes in ocean currents associated with climate change cause inundation events in areas not historically documented
- Sargassum is a free-floating algae that gathers at convergences of ocean currents where other floating debris accumulates
 - *Ingestion of marine debris is extremely common in the plethora of animals using this habitat as a foraging area*

