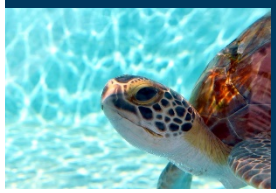
LOGGERHEAD
MARINELIFE CENTER

Human Impact Lab: The Sargasso Sea

Loggerhead Marinelife Center

Loggerhead Marinelife Center is an ocean conservation organization and sea turtle hospital located adjacent to one of the most important sea turtle nesting beaches in the world. The Center features an on-site campus hospital, research laboratory, educational exhibits and aquariums, and also operates the Juno Beach Pier, which hosts world-class angling and sightseeing. The Center's conservation team works with 76 local and international organizations across six continents to form partnerships and share conservation initiatives and best practices that are core to its mission of ocean conservation. The Center is expanding and has launched its Waves of Progress capital expansion campaign, designed to accelerate and amplify LMC's conservation and education impact.

Our mission is to promote conservation of ocean ecosystems with a special focus on threatened and endangered sea turtles. Our vision is to be recognized locally and internationally as the leading authority in sea turtle education, research and rehabilitation.



Visit Marinelife.org to learn more about Loggerhead Marinelife Center!

Lesson Objectives

- I can describe three reasons the Sargasso Sea is unique.
- I can describe the species that rely on sargassum for a portion of their life.
- I can observe the species endemic to the Sargasso Sea.

Vocab

- Endemic - native and restricted to a certain place
- Sargassum - a brown seaweed with berrylike air bladders, typically forming large floating masses
- Holopelagic – something that remains pelagic through the entire life cycle.
- Gyre - a circular pattern of currents in an ocean basin.
- Biodiversity - the variety of life in the world or in a particular habitat or ecosystem.
- Pelagic – relating to the open ocean

Resources

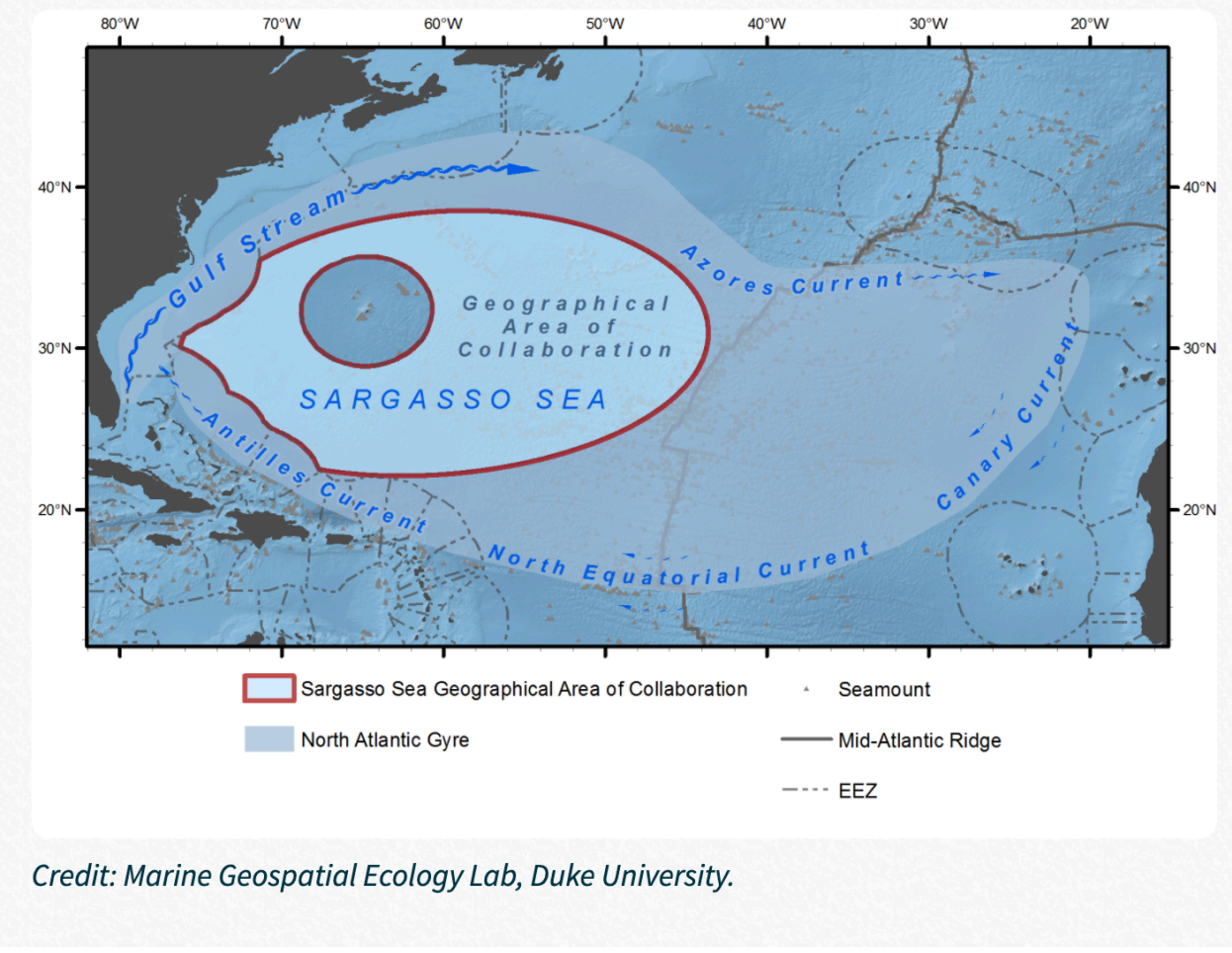
The Sargasso Sea Commission

Exploring Ocean Gyres

Directions: The activity below is adapted from a "Gyre in a Bottle" activity by Monterey Bay Aquarium (the activity can be found here)

Materials:

- Two-liter plastic bottle with top (ex: a pop bottle) – TIP: remove the labels completely
- Various types of small objects (small pieces of leaf, plastic, paper, etc)
- Water
- Map of Sargasso Sea and ocean currents of the Atlantic



Credit: Marine Geospatial Ecology Lab, Duke University.

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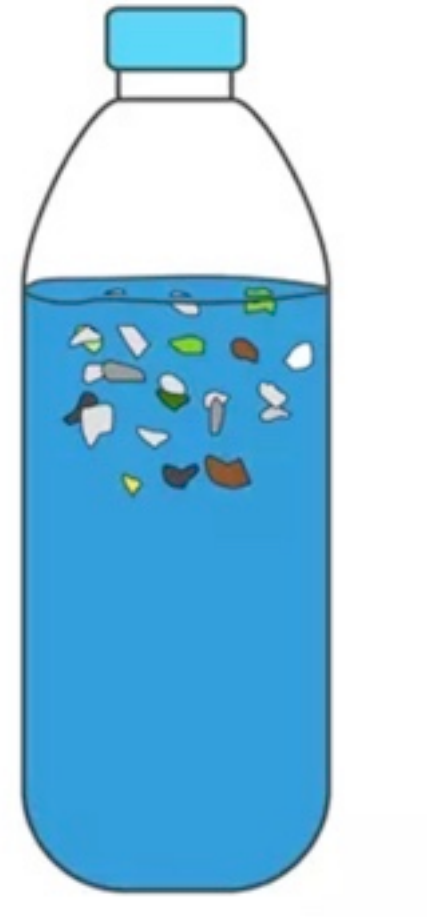

https://www.montereybayaquarium.org/for-educators/curriculum-and-resources/curriculum/gyre-in-a-bottle

Image Credit

Directions:

1. Review the threats to the Sargasso Sea, and consider how the North Atlantic gyre may magnify some of these threats.
2. Place the small items of plastic, leaf, etc. into the bottle and then fill the bottle with water. Be sure to put the top back on the bottle!
3. Observe how the different items "float" in the water – do all the items you chose float at the surface? Do some sink? Maybe some stay suspended in the water?
4. Swirl the liquid in the bottle in one direction – what do you notice?
    a. Do the items tend to gather in the middle? Do any sink that hadn't before? Do any float that hadn't before?

Questions to ask:

- What happens inside of a gyre?
- What causes gyres?
- What can impact gyres?
- How can the movement of a gyre impact marine life?
- Does pollution impact gyres? How?
- Can you think of any ways that scientists could study gyres?

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