

Human Impact Lab: Mangroves

Loggerhead Marineline Center

Loggerhead Marineline 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.




Lesson Objectives

- I can describe what a mangrove is.
- I can describe why mangroves are important.
- I can observe several organisms that rely on mangroves.

Vocab

- Mangrove - a tree or shrub that grows in chiefly tropical coastal swamps that are flooded at high tide. Mangroves typically have numerous tangled roots above ground and form dense thickets.
- Propagule - a vegetative structure that can become detached from a plant and give rise to a new plant, e.g. a bud, sucker, or spore.
- Halotolerant - the adaptation of living organisms to conditions of high salinity.
- Intertidal - of or denoting the area of a seashore which is covered at high tide and uncovered at low tide.
- Lenticel - one of many raised pores in the stem of a woody plant that allows gas exchange between the atmosphere and the internal tissues.
- Pneumatophore - (in black mangroves) an aerial root specialized for gaseous exchange.
- Prop root - (in red mangroves) aerial root that arises from a stem or trunk, penetrates the soil, and helps support the plant, as in mangroves.

Resources



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

Make a Mangrove!

Directions: Use recycled materials to create and label your own mangrove!

- **Materials:**

- Paper bags
- Pipe cleaners
- Toilet paper roll
- Tape
- Markers or paint
- Green paper



Use the mangrove diagrams on the following page and your supplies to create a mangrove. Label the parts using the following vocabulary words:
propagule, pneumatophore, prop roots

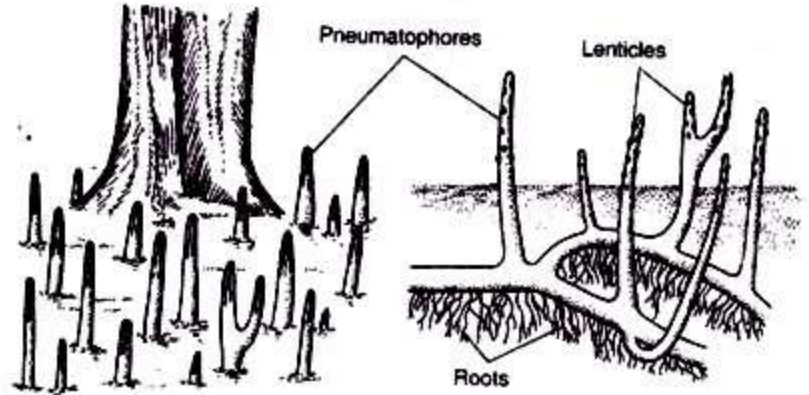
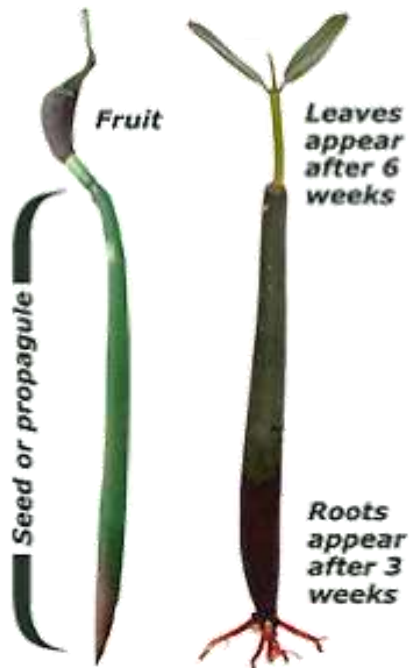


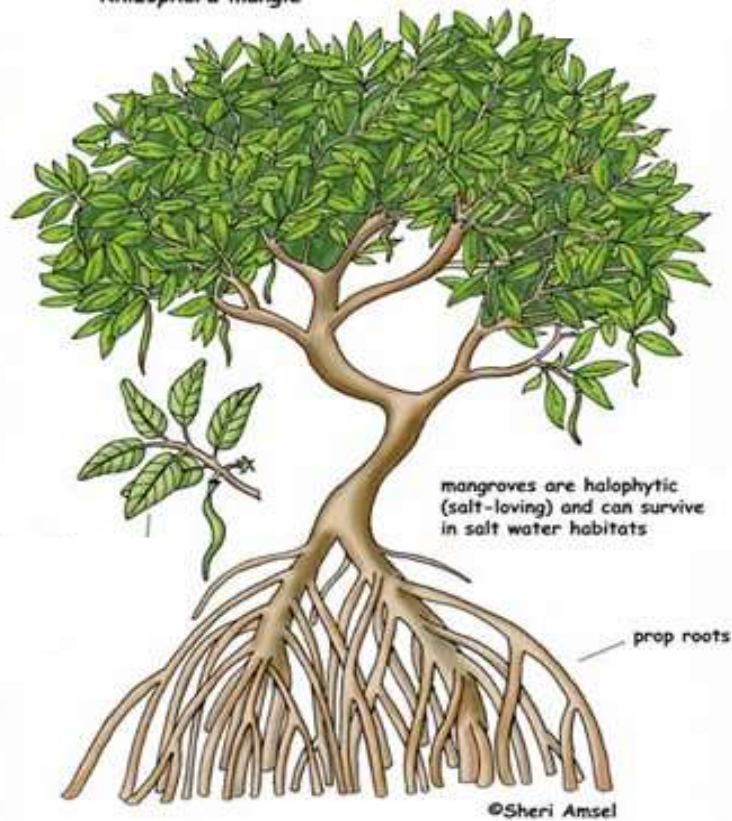
Fig. 10.1. Pneumatophores of mangrove plant.

<http://www.biologydiscussion.com/plants/halophytes-classification-and-characters-of-halophytes-with-diagram/6932>

<https://www.sunyccc.edu/student-experience/academic-opportunities/tropical-biology>

Red Mangrove

Rhizophera mangle



<https://www.exploringnature.org/db/view/Mangrove-Swamp>