

Water Quality B/C

NCSO Coaches Clinic 2020



Overview



- Marine and Estuary Ecosystems
- One page of notes, low-tech calculator, Salinometer
- Goggles needed!

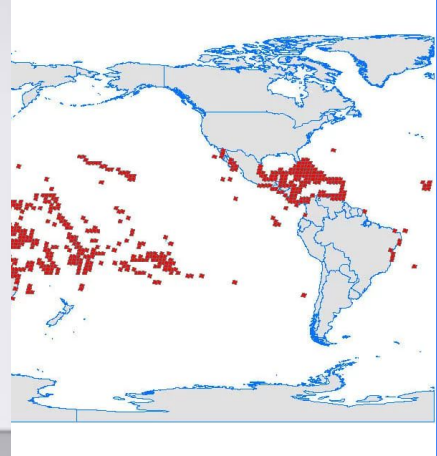
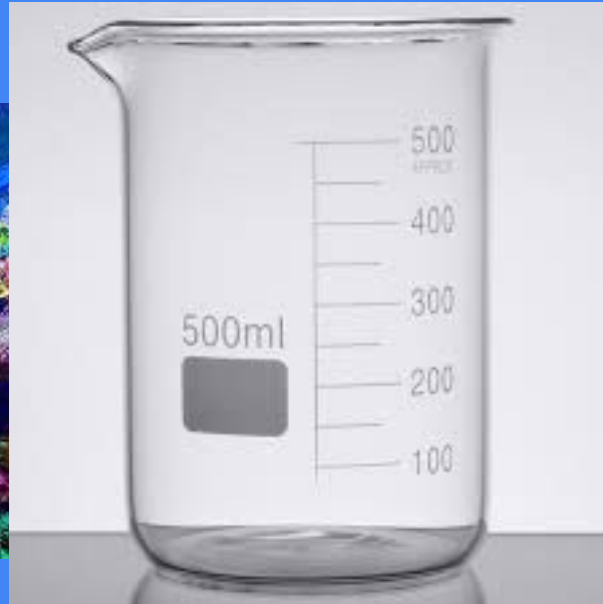
Three Sections

- Marine and Estuary Ecology
- Macroflora/fauna Identification
- Water Monitoring and Analysis
 - Salinometer



Equal scoring for each part!

What's New?



Example Questions!



Questions - Marine and Estuary Ecology



- *Acropora* is a genus of stony coral especially susceptible to coral bleaching, a process in which
 - a) coral form a CaCO_3 skeleton
 - b) basic conditions cause a color change
 - c) **algae are ejected from polyps**
 - d) direct sunlight causes a loss of pigment

Questions - Marine and Estuary Ecology



- Growth of algae symbionts within coral reefs is highly dependent on which elemental nutrient?
 - a) **Nitrogen**
 - b) Carbon
 - c) Sulfur
 - d) Phosphorous

Questions - Identification

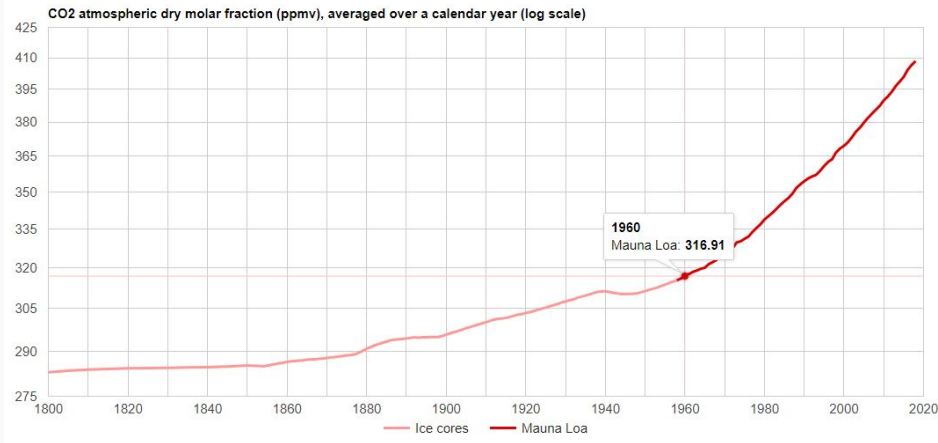


- Identify the organism in the image to the right.

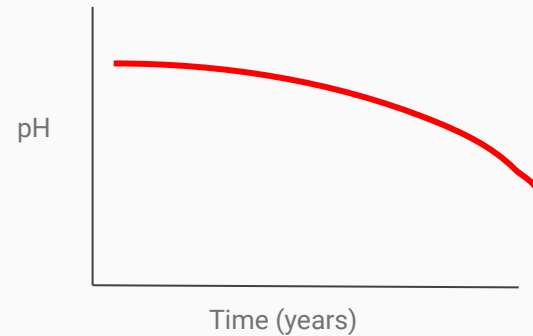
Long-spined black sea urchin

- Which of the following is likely to occur if this species is absent from the coral reef?
 - a) Nitrogen accumulation
 - b) Coral bleaching
 - c) Gamete release
 - **d) Algae overgrowth**

Questions - Water Monitoring and Analysis



- On the axes provided below, sketch the shape of the graph you would expect given the CO₂ information provided



Strategy



An underwater photograph of a vibrant coral reef. Sunlight rays penetrate the clear blue water from the top, creating a bright, shimmering effect. The reef is composed of various types of coral, including large, rounded, orange-brown brain corals and smaller, branching corals. Small fish are visible swimming in the background. The overall scene is bright and colorful, with a blue gradient on the left and right sides of the image.

Thank You!

Questions?