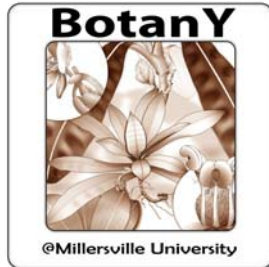


Topic 14



Algae

Reading: Hoefnagels (2018) Chapter 18 section 2 on algae

I. What is an alga?

- A. Any* photoautotroph not in Kingdom Plantae.
1. Green algae
 2. Red algae
 3. Brown algae & Diatoms
 4. Blue-green algae* (Cyanobacteria)

I. What is an alga?

- B. Characteristics of
- Photosynthetic
 - Aquatic (terrestrial)
 - No cuticle
 - Nonvascular
 - Most lack 2n multicellular form
 - Fertilization (when present) via external water
 - Base of aquatic food chains; 90% of marine and freshwater biomass.

I. What is an alga?

- C. Where do you find them?
- Regularly moist areas, fresh or marine
but most capable of regular, extreme desiccation
(e.g., intertidal zones, N face of houses or trees).

II. Seaweeds

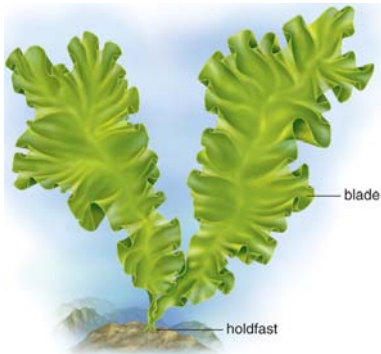
- A. Seaweeds are marine, macroscopic algae
- B. They come from 3 algal lineages, each distinguished by their accessory pigment profile and thus color (note: all have Chlorophyll a)

Group	Color	Accessory Pigments Responsible for their Color
Green	Green (like Plants)	Same mix of Carotenoids found in Plants
Red	Reddish	Phycobilins
Brown	Brown	Fucoxanthin

II. Seaweeds

- A. Seaweeds are marine, macroscopic algae
- B. They come from 3 algal lineages, each distinguished by their accessory pigment profile and thus color (note: all have Chlorophyll a)
- C. Morphology of Seaweeds

***Ulva* (sea-lettuce) is an example of a green seaweed**



***Ulva* (sea-lettuce) is an example of a green seaweed**



***Chondrus* (Irish-moss) is an example of a red seaweed**

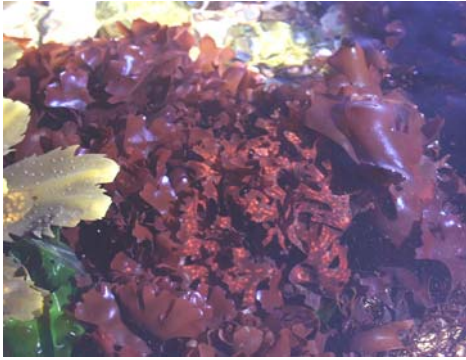
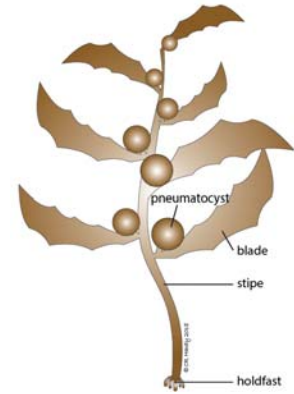


Photo by Kontos. Major available via CC BY-SA 3.0

***Sargassum* (sargassum) is an example of a brown seaweed**



***Sargassum* (sargassum) is an example of a brown seaweed**



Sargassum on the windward side of a Caribbean Island

***Laminaria* (kelp) is an example of a brown seaweed**



***Laminaria* (kelp) is an example of a brown seaweed**



A kelp mower off California coast



Laminaria sp.