



Are Seaweeds Plants?

No! Despite rumors seaweeds are macroalgae (different than eelgrass and flowering plants)

Supporting Structures

The study of seaweed is called Phycology. Macroalgae, or seaweeds, are supported by the water they grow in. They do **not** need plant-like structures (stems or bark) to hold them up in the water column. They do have to deal with strong water currents, so they often have to be tough yet flexible to cope with strong forces from waves.

Vascular Structures

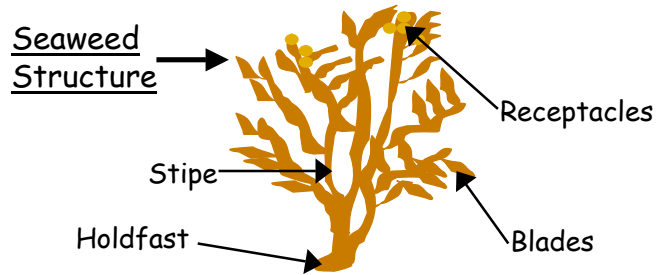
Plants have an organ, or vascular, system that transports nutrients in xylem and phloem. Seaweeds have no vascular system. Each cell in algae has access to the water in which it lives and can exchange gases and nutrients.

Roots vs. Holdfasts

Seaweeds (macroalgae) do not have roots. Unlike plants, they can be removed from the substrate (rocks, coral) and reattach somewhere else. They use structures called holdfasts to cling to rocks. Holdfasts do not transport nutrients like a plant's roots do in the soil, but they are a structure used to attach the algae and keep it from floating away.

Reproductive Strategies

Seaweeds reproduce by either breaking apart (asexual reproduction) or they can release sperm and eggs (sexual reproduction) which are produced in receptacles. Unlike macroalgae, we know that plants use seeds and flowers to reproduce.

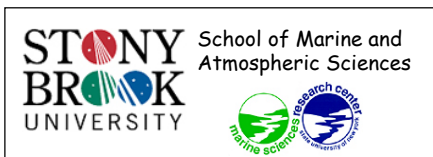


Further Information on Seaweed/Macroalgae:

Phycology by R.E. Lee. 1999. Cambridge University Press.

3rd Edition. 614 p.

Journal of Phycology. An International Journal of Algal Research. Monthly publications at: <http://www.jphycol.org/>



Created by Stephanie Talmage, 2008
<http://www.somas.stonybrook.edu>



Photos by S.Talmage