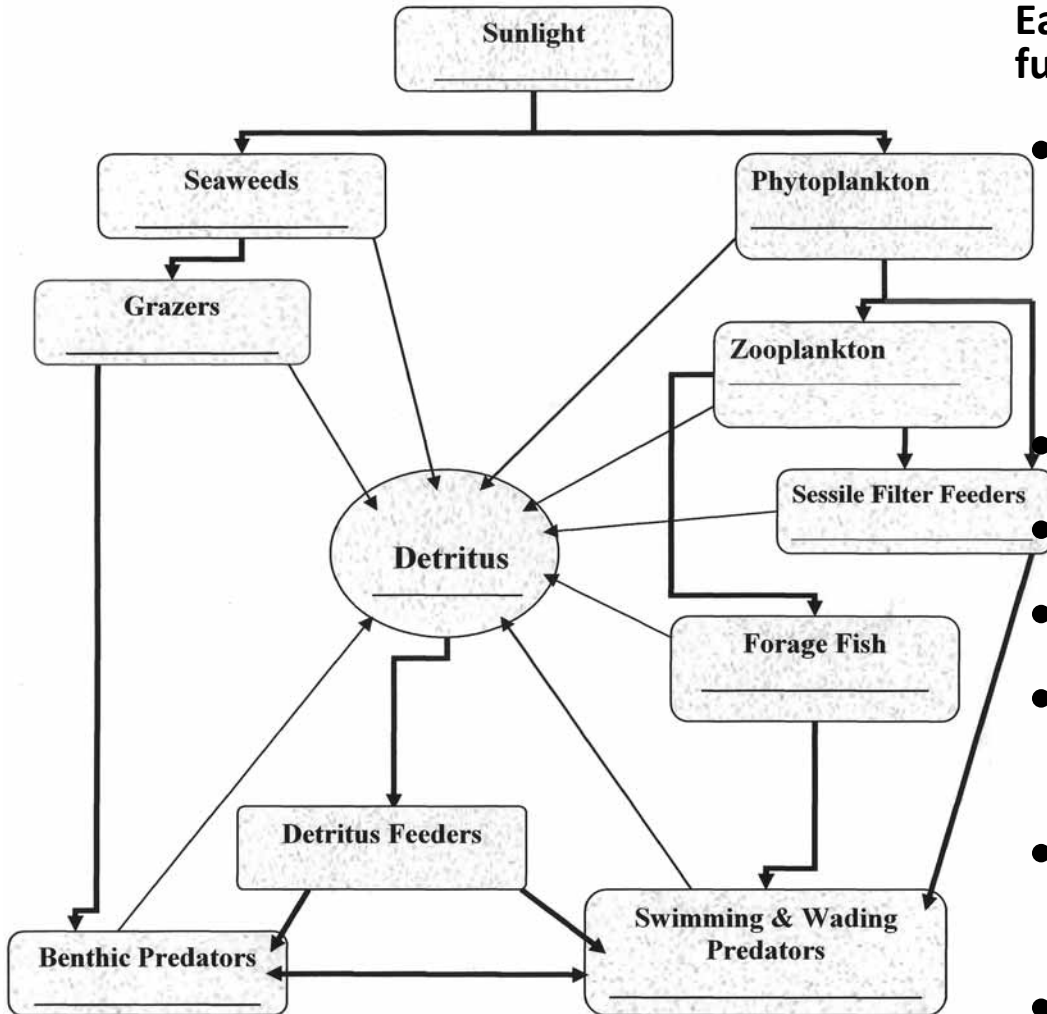


Generalized Marine Food Web



Each member of a marine foodweb has a function in the larger ecosystem.

- As we watch the video, keep each of these organisms in mind and we will fill in the blanks after the video.
- Sessile = stationary
- Grazer = seaweed eater
- Benthic = bottom-dwelling
- Phytoplankton = plant plankton
- Zooplankton = animal plankton
- Plankton = drifter
- Forage fish = any fish eaten by large predatory fish, seabirds or marine mammals

Directions: Each of the following names is used in the video, Return of the Plankton. Choose the word (or words) from the list below which best corresponds to the terms given in the marine food web. (Generalized energy flow indicated with arrowed lines.)

Terms and names: sea gull, diatoms, Tubesnout, bacteria, Bull Kelp, copepod, barnacle, kelp crab, California Sea Cucumber, octopus, Lingcod, Great Blue Heron, solar energy

The planktonic world is diverse and beautiful.



Diatoms are the single-celled “grass” of the ocean.

Single-cell encased in a glass (SiO_2) box.



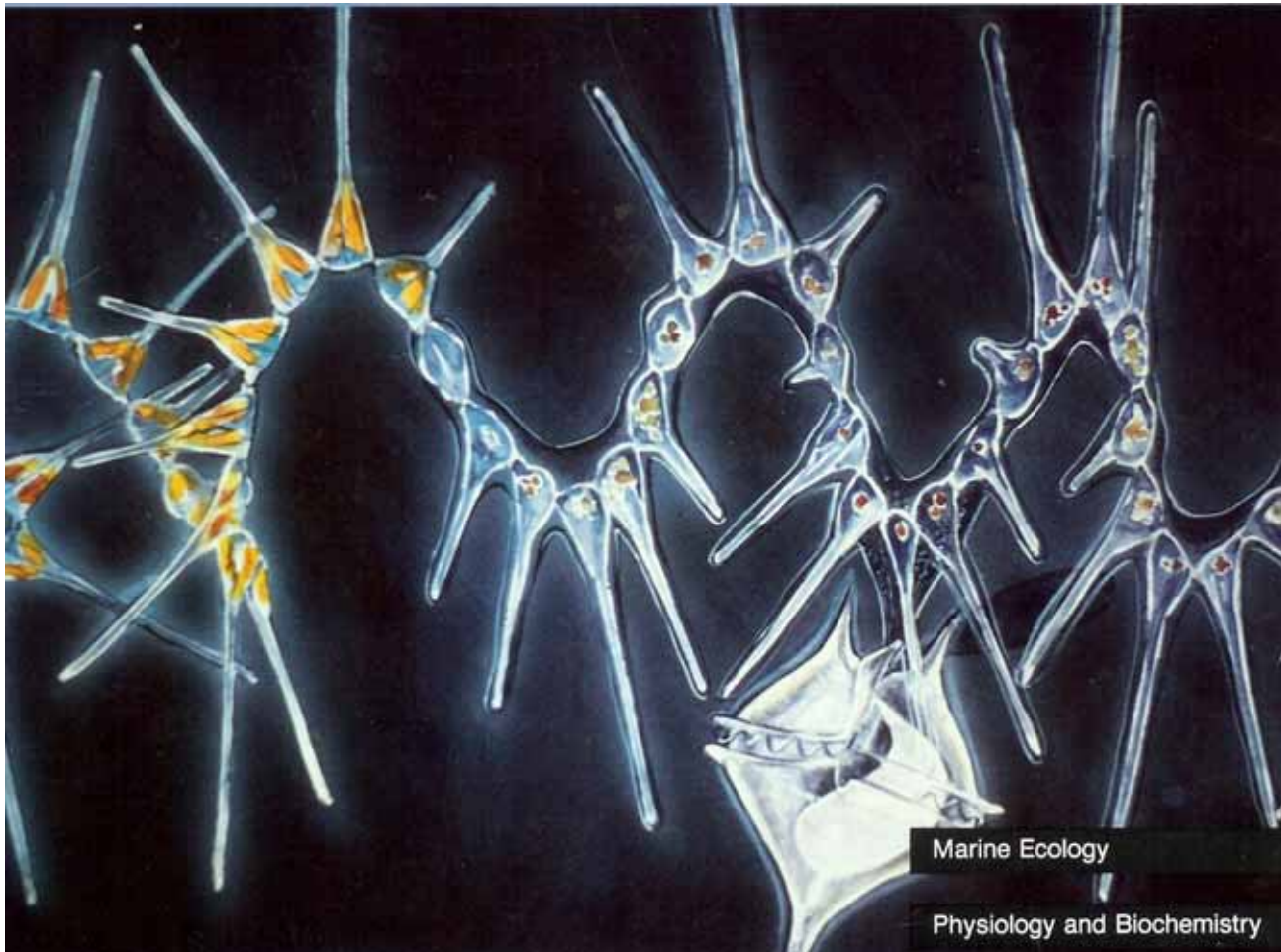
Diatoms come in a wide variety of shapes and sizes.



More Diatoms...



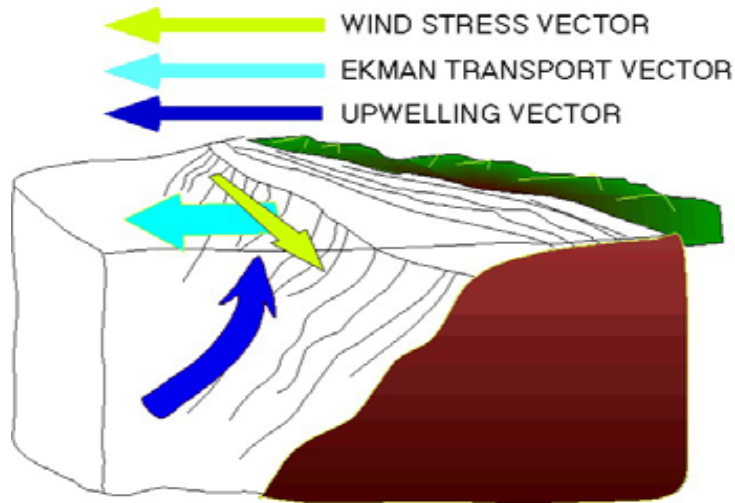
There are some very strange feeding strategies employed by the plankton.



Copepods are the tiny swimming “crickets” of the sea. They feed on single-celled plankton.

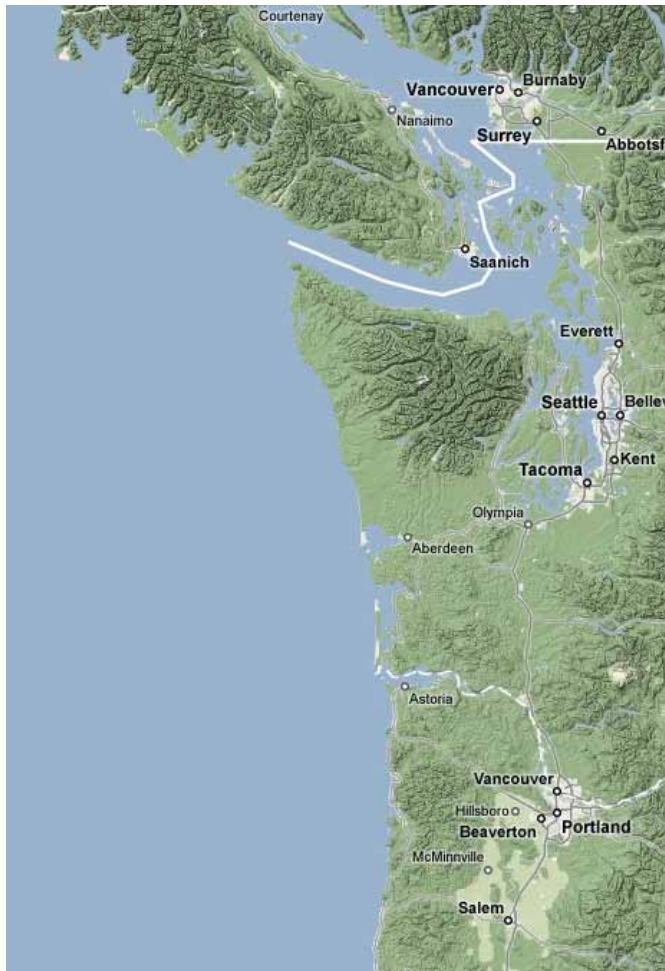


Seasons alter the abundances of plankton.



- In the spring, there is greening because of nutrients from winter mixing and increased sunlight.
- During summer the water clears as nutrients are capped by warm stratified water and the diatoms are consumed.
- In Fall there may be a second bloom (i.e. greening) because of nutrient upwelling.

Puget Sound and Coastal waters have seasonal cycles.



- Which way does the wind blow to encourage upwelling?
- When do periods of upwelling occur along the coast?
- When do you expect plankton blooms along the coast?
- Would the blooms in Puget Sound occur in synchrony with coastal blooms or would they be influenced by other factors?