

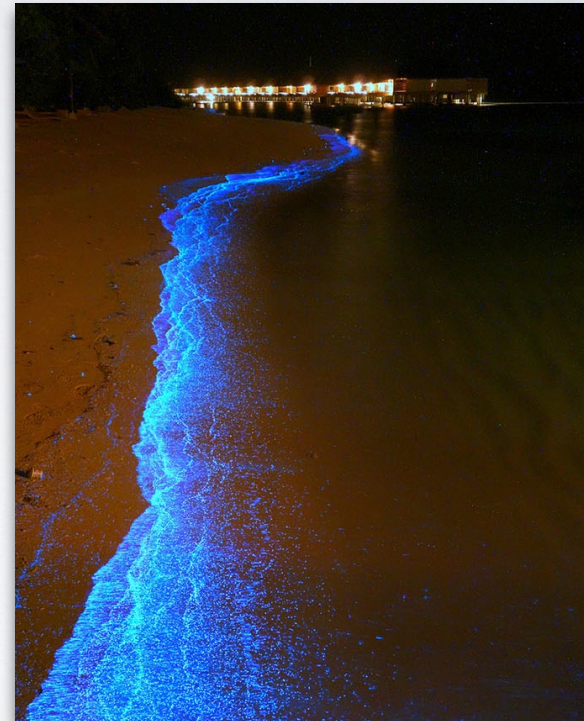
# MARINE ZONES

What are the different life zones of the ocean?



# MARINE ZONES

- Organisms are found in habitats
- The total surroundings of living things that affect it are called environments
- Environments have living (biological) and non-living (physical and chemical) components



# MARINE ZONES

- Biotic - living parts of an environment
  - Examples: grass, trees, insects, and other animals
- Abiotic - non-living parts of an environment
  - Examples: water, light, temperature, salinity, and water pressure
- Interactions between these factors characterize all environments

# MARINE ZONES



Biotic



Abiotic

# MARINE ZONES

- Life Zone - a region that contains organisms that interact with one another and their environment

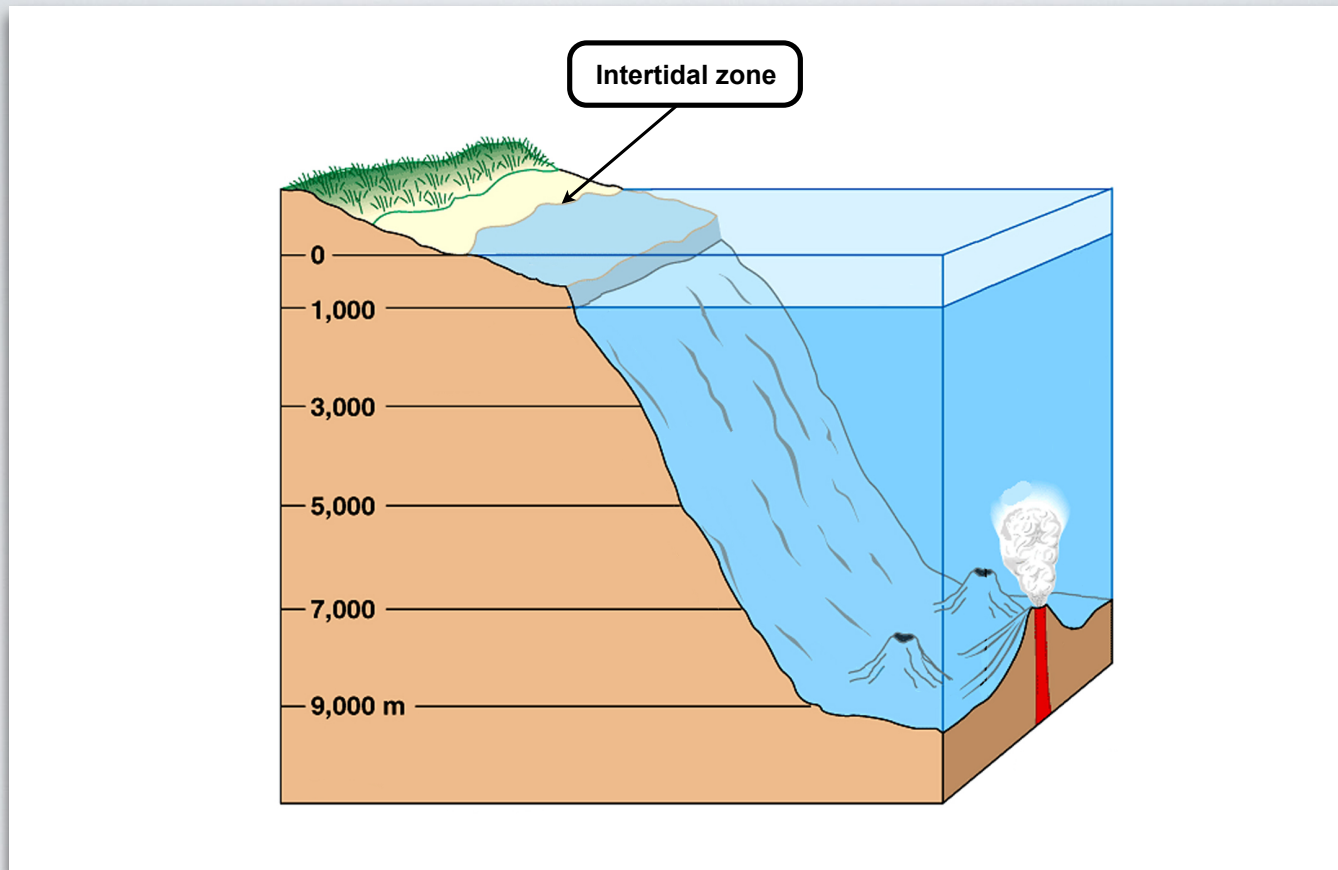


# MARINE ZONES

- Intertidal Zone - area located between high and low tide
  - High tide is marked by the strand line
  - Strandline - a long line of seaweed and debris deposited on the beach at high tide



Intertidal Zone with Strandline



Marine Zones



# MARINE ZONES

- Biotic organisms can survive in wet and dry climates
  - Examples: beach fleas, crustaceans, worms, and mollusks





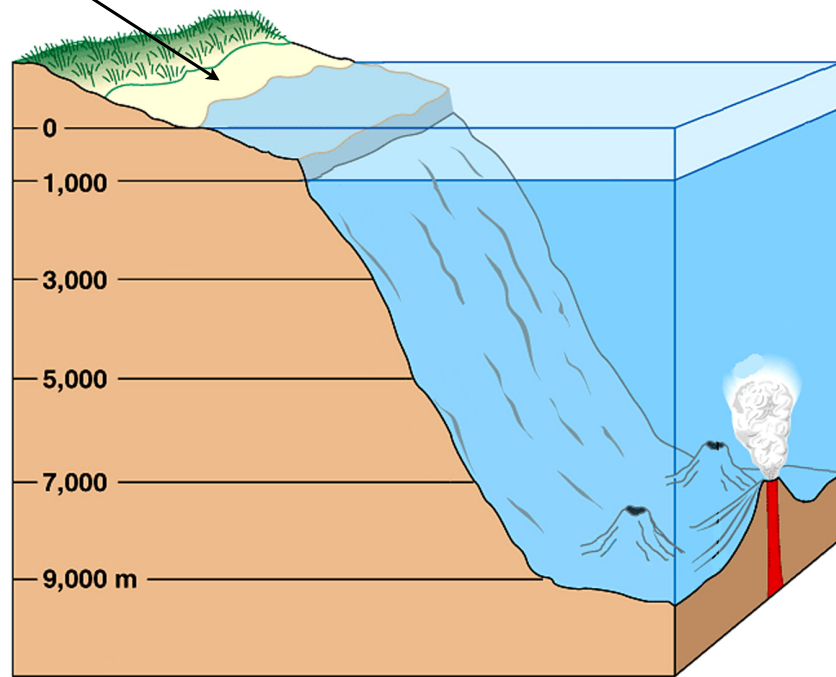
Tidal Pools

# MARINE ZONES

- Supratidal Zone - area from the high tide mark to the dunes
  - *This is where is put your beach towel*
- Limited vegetative growth due to salt spray
- Grasses, shrubs and small trees begin to grow as you further from the ocean



Supratidal zone



Marine Zones

# MARINE ZONES

- Subtidal Zone - area below the low tide mark where coastal life remains underwater
  - This includes the surf zone where there is wave turbulence
  - Organisms in this zone have the ability to attach to the bottom
    - Examples: flat fish, shrimp, crabs, clams, snails, worms, and sponges

# MARINE ZONES

## Subtidal Zone Biotic Organisms



Clams



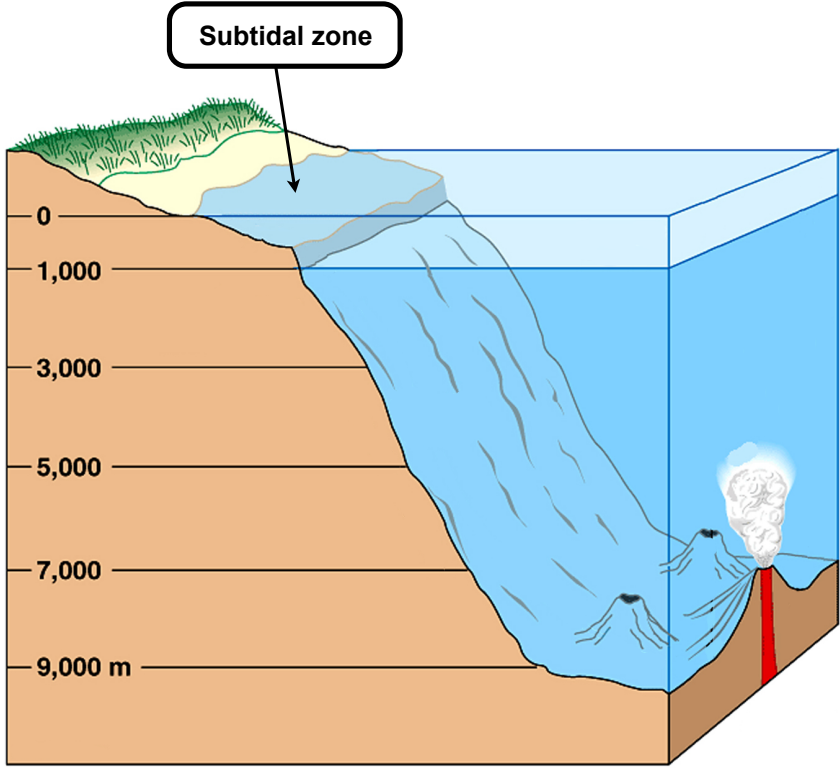
Sponges



Crabs



Where did he go?



Marine Zones





Subtidal Zone

# MARINE ZONES

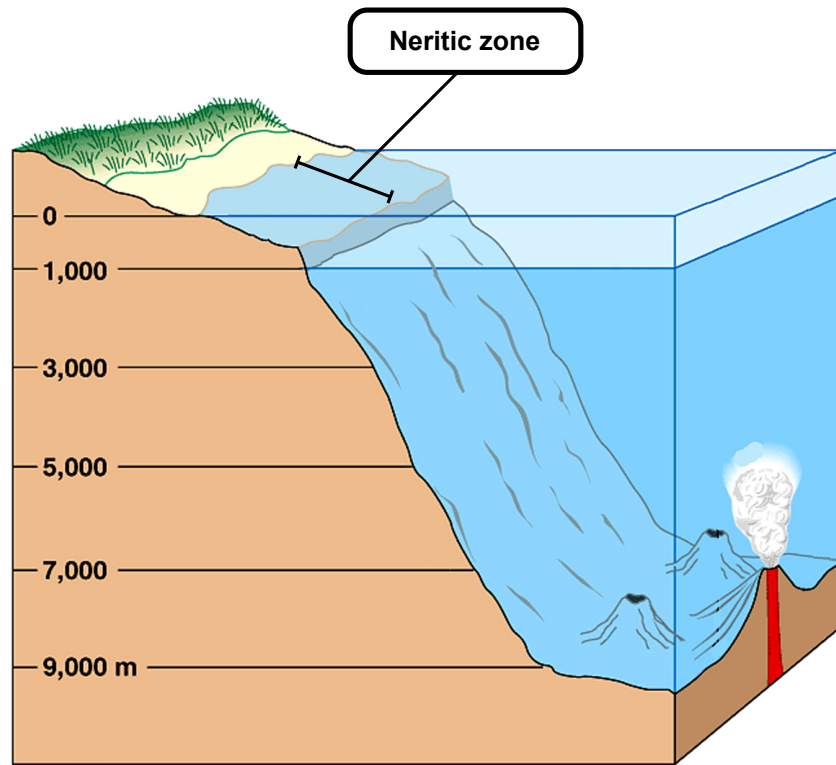
- Neritic Zone - area beyond the subtidal zone
  - Region of water that lies above the continental shelf
  - Most commercial fishing occurs in this zone



# MARINE ZONES

- Neritic Zone (continued)
  - Rivers and runoff provide nutrients for plankton
  - Entirely in the photoic zone so that phytoplankton and marine plants can carry out photosynthesis





Marine Zones

# MARINE ZONES

- Oceanic Zone - area beyond the neritic zone (open ocean) which is divided laterally into two different zones
  - Photic Zone - area which receives light
  - Aphotic Zone - area that does not receive any light

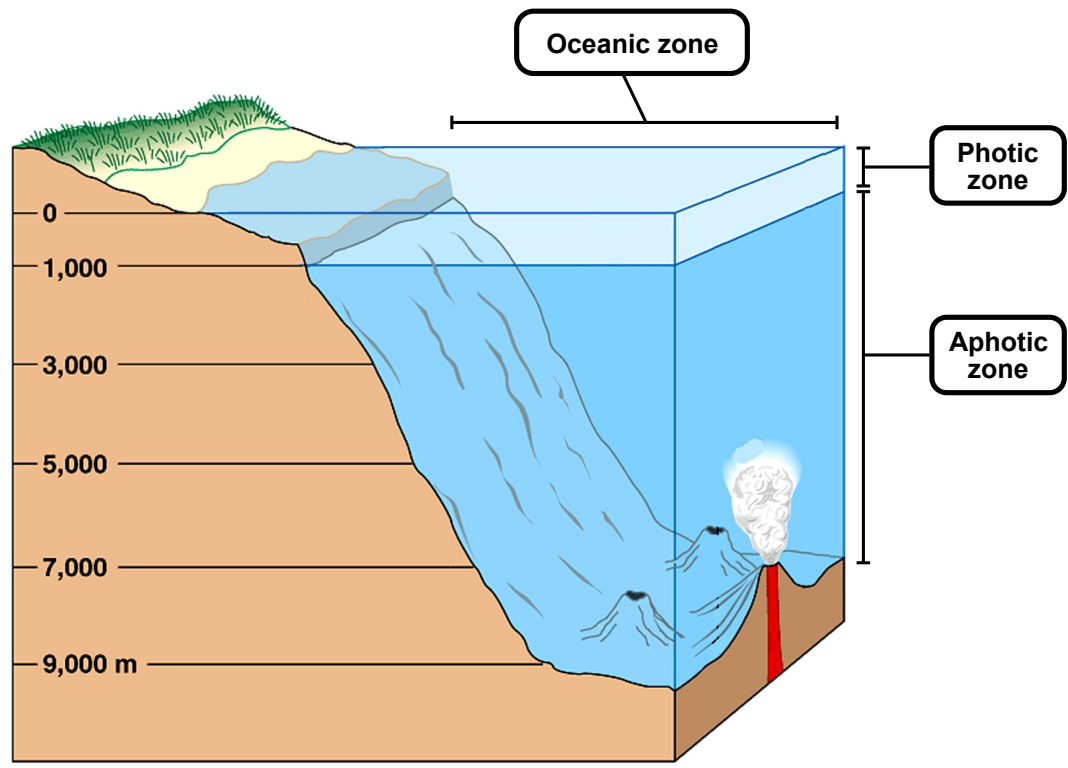
# MARINE ZONES



Photic Zone



Aphotic Zone



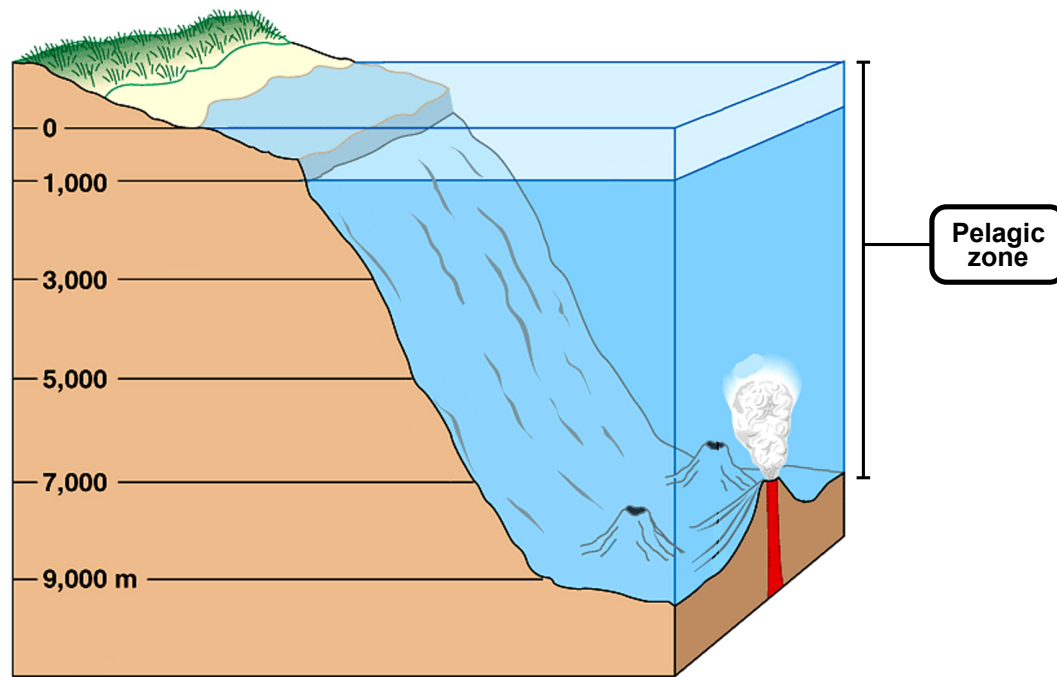
Marine Zones

# MARINE ZONES

- Pelagic Zone - area that includes the neritic zone and the oceanic zone
  - Largest life zone in the ocean
  - Covers the entire ocean above the sea bottom
  - Large schools of fish and marine mammals swim freely







Marine Zones