

# EARTH BIOMES



Our actions and interactions determine the  
place in which we live...

# WHAT IS A BIOME?



- ❧ Is a large group of similar ecosystems, usually identified by the abundance of certain types of plants.
- ❧ A biome can have diverse regional climates.
- ❧ According to the solar radiation, biomes have specific climatic zones that determine the kind of plants that can grow on them.

# KINDS OF BIOMES



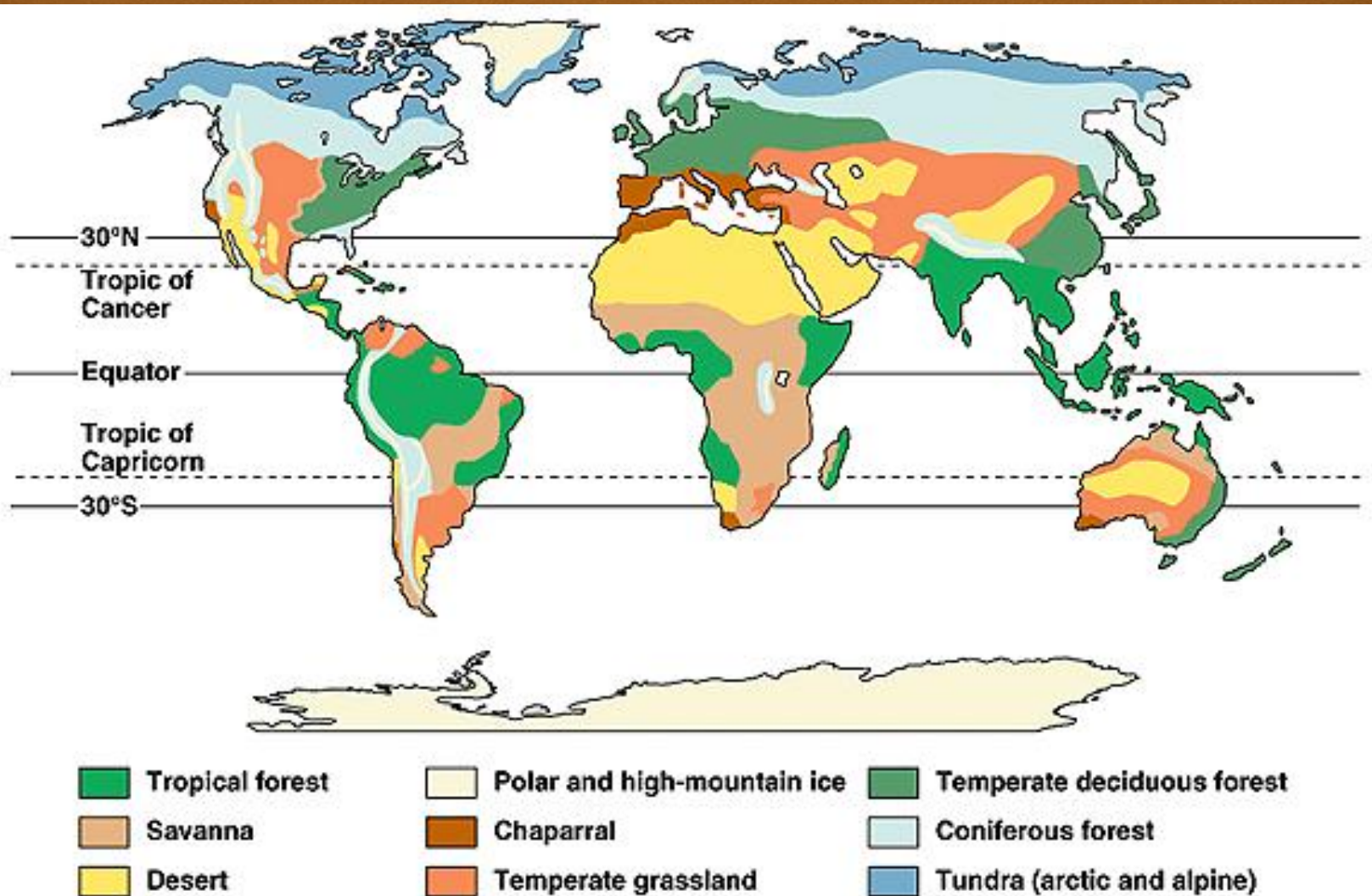
## ❧ LAND BIOMES

❧ Determined by the climate, and the plants that grow on it.

## ❧ WATER BIOMES

❧ Determined by the abiotic factors such as light, temperature, and the amount of salt, oxygen and nutrients dissolved.

# LAND BIOMES



# TUNDRA

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- ❧ Cold and treeless.
- ❧ Animals have adaptations to keep warm.
- ❧ Most of the soil is permanently frozen.
- ❧ Winters are long, cold and dark.
- ❧ Summers are short and cool.



# TAIGA



❧ Coniferous trees grow close together.

❧ Winters are long and cold.

❧ Summers are relatively mild



# TEMPERATE FOREST

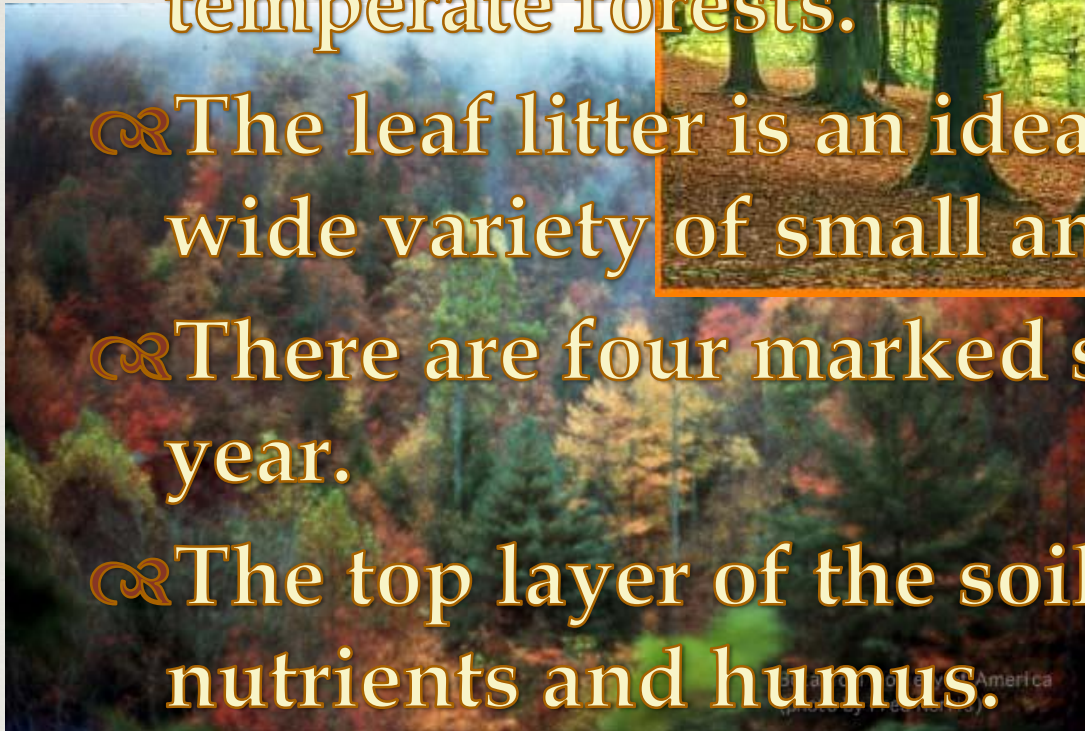


☞ Tall deciduous trees grow on temperate forests.

☞ The leaf litter is an ideal habitat for a wide variety of small animals.

☞ There are four marked seasons in the year.

☞ The top layer of the soil is rich in nutrients and humus.



# CHAPARRAL



∞ Is a warm region that has a rainy winter season and a long dry summer.



∞ Plants and animals have special adaptations to avoid dehydration.





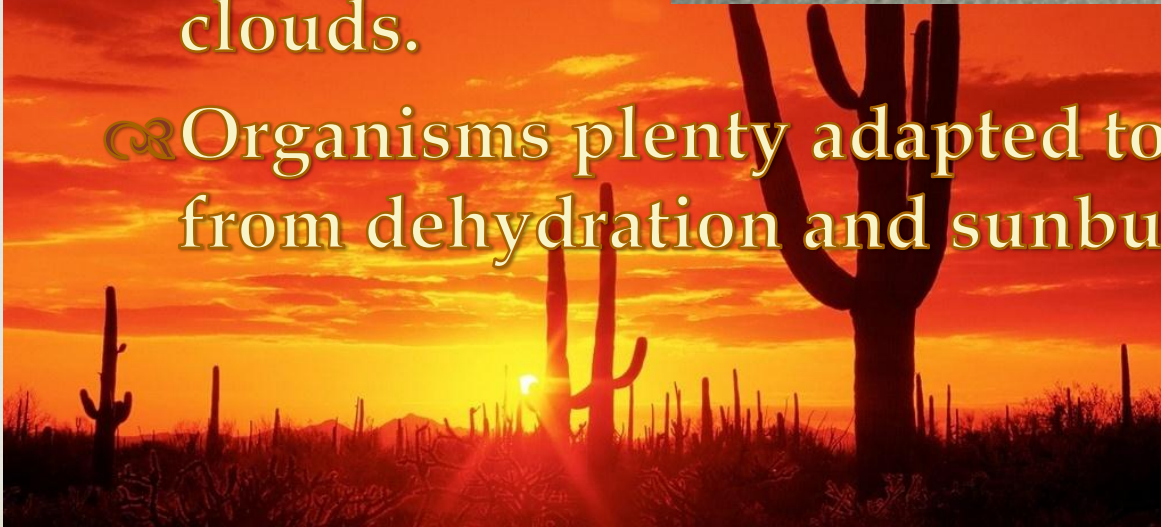
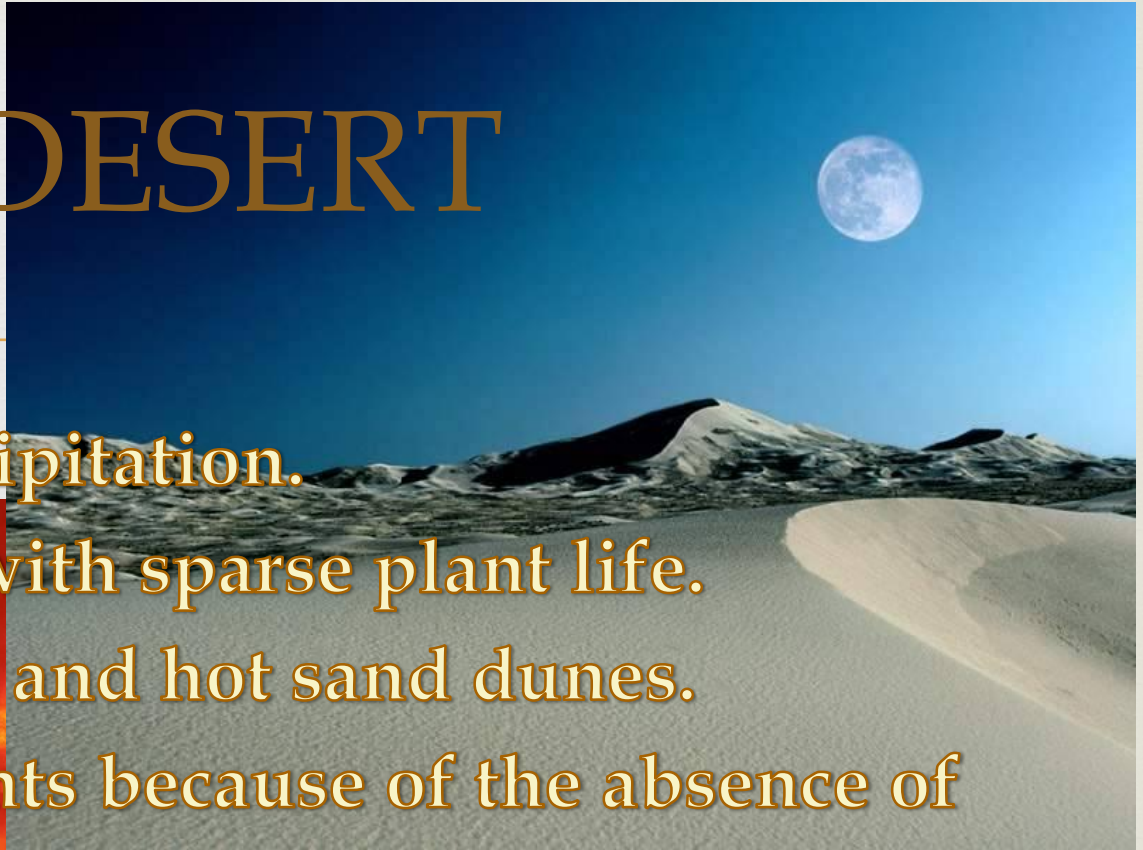
# TROPICAL RAINFOREST

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- ☞ Warm wet weather.
- ☞ Tall trees form a dense canopy about 50 m above the ground where water and gases are recycled keeping the humidity.
- ☞ Smaller plants have wide leaves to reach the sunrays from the canopy.
- ☞ The soil is very poor in nutrients because dead organisms that fall to the floor are decomposed and recycled rapidly.
- ☞ Plants and animals are colorful.
- ☞ Great biodiversity.

# DESERT

- ☞ Too little precipitation.
- ☞ Arid regions with sparse plant life.
- ☞ Extremely dry and hot sand dunes.
- ☞ Very cold nights because of the absence of clouds.
- ☞ Organisms plenty adapted to keep safe from dehydration and sunburns.



# SAVANNA

∞ Deciduous trees that are short and widely spaced than in other forests.

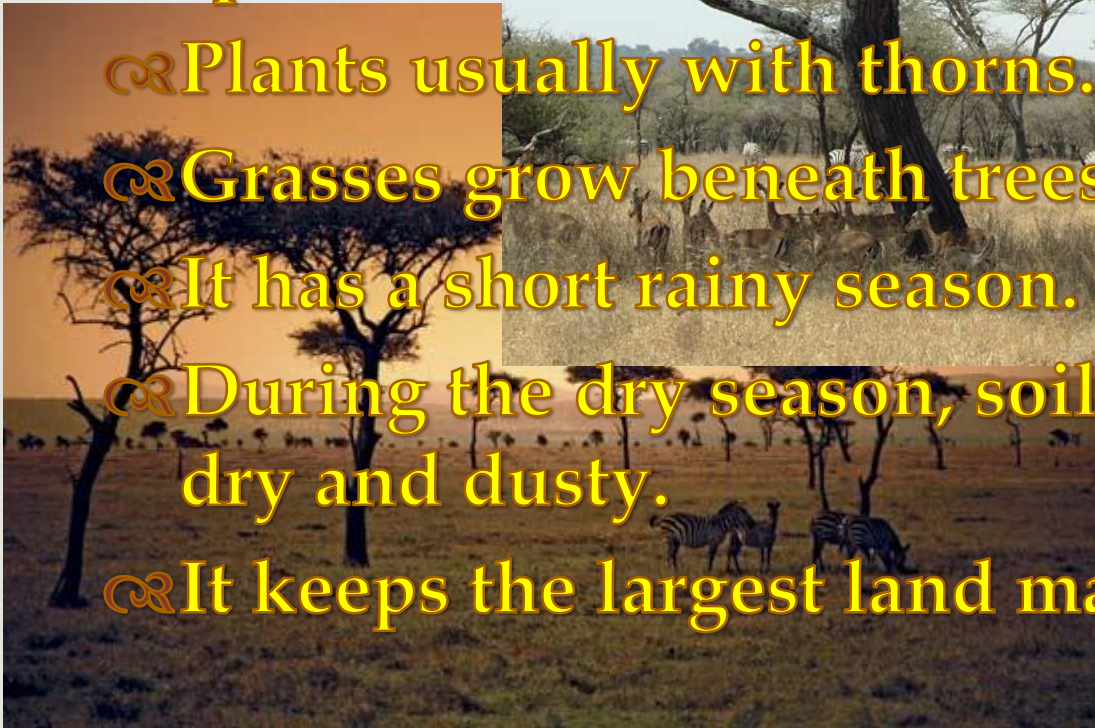
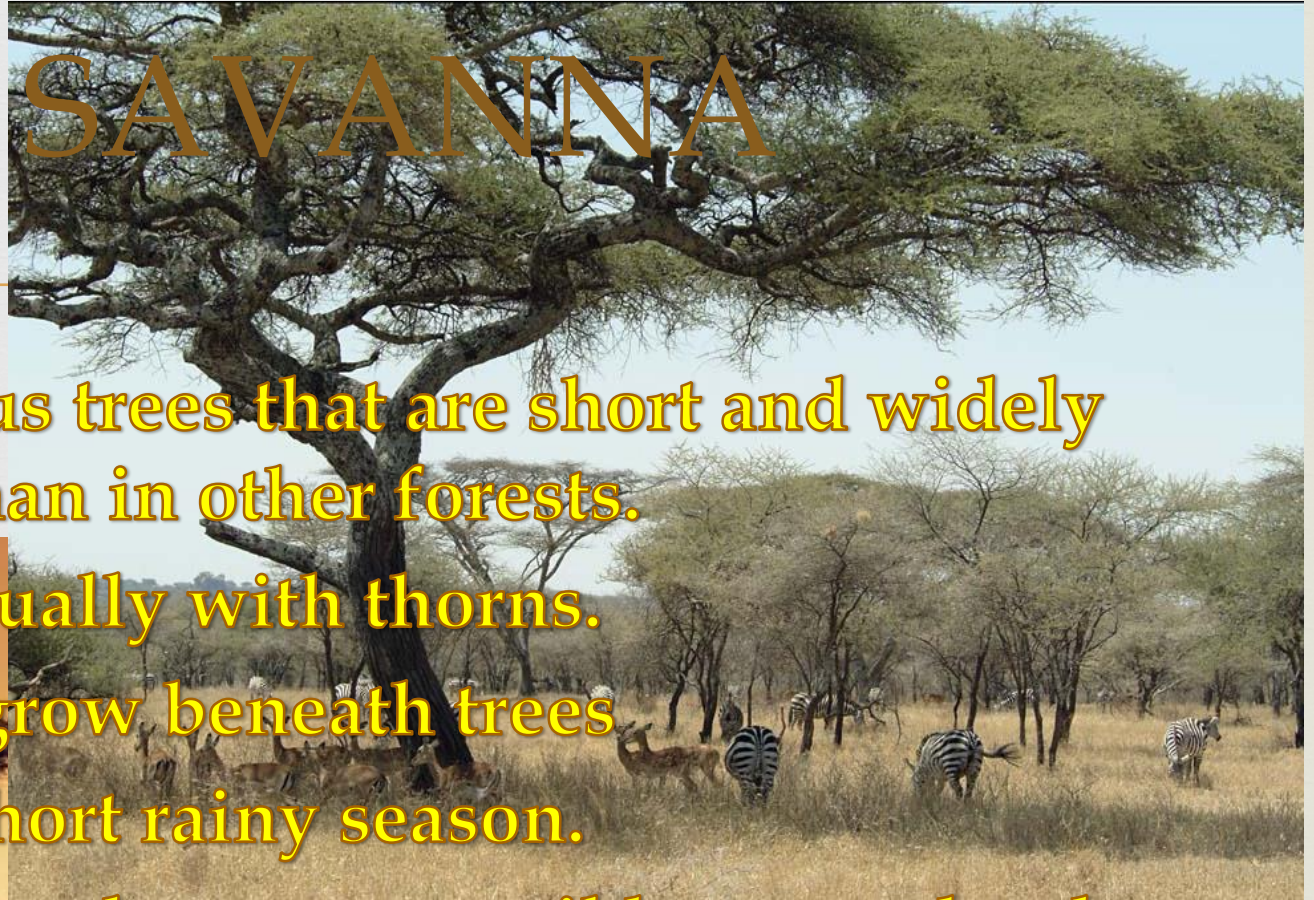
∞ Plants usually with thorns.

∞ Grasses grow beneath trees

∞ It has a short rainy season.

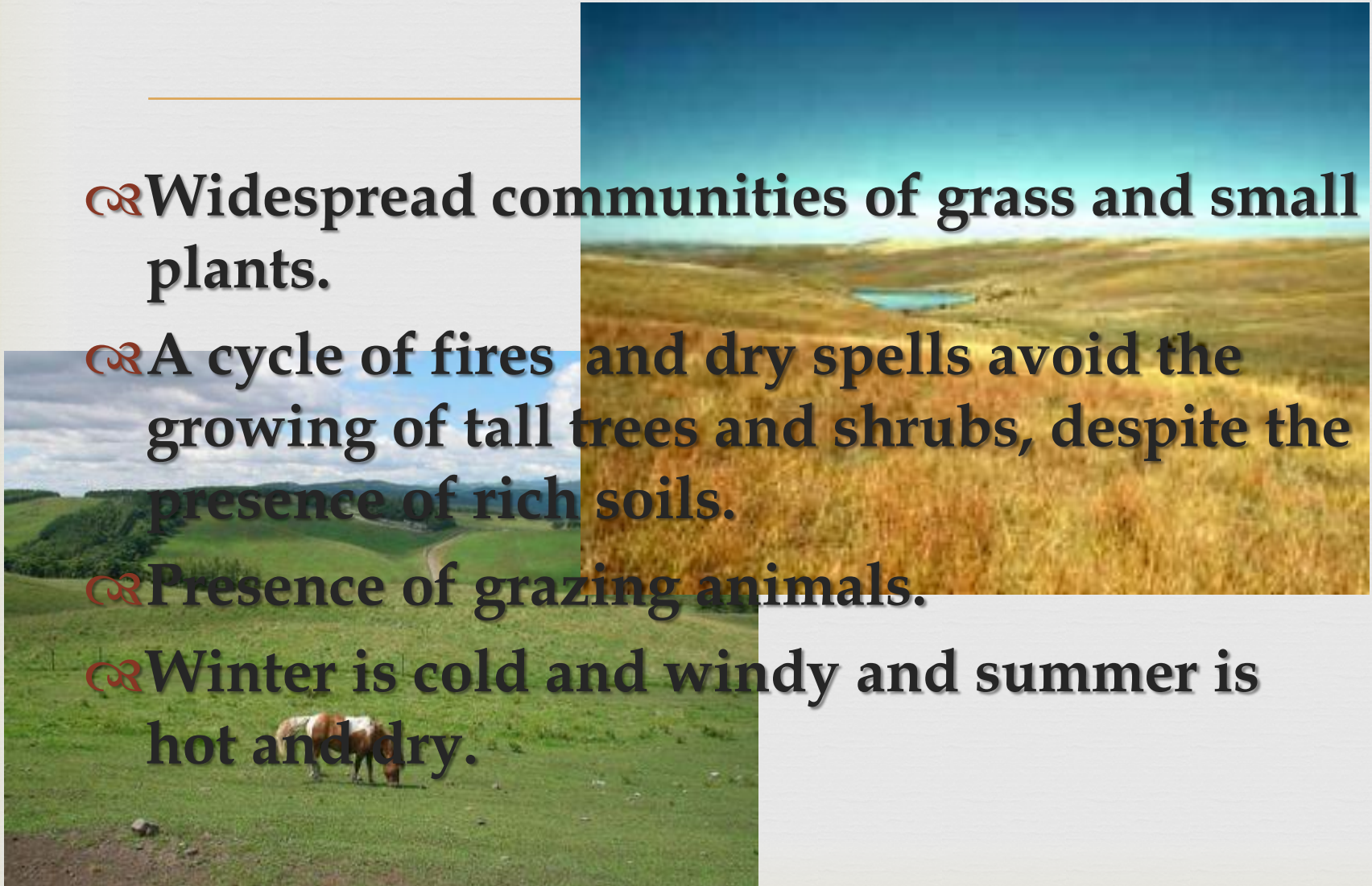
∞ During the dry season, soil becomes hard, dry and dusty.

∞ It keeps the largest land mammals of Earth.



# GRASSLAND

- ❧ Widespread communities of grass and small plants.
- ❧ A cycle of fires and dry spells avoid the growing of tall trees and shrubs, despite the presence of rich soils.
- ❧ Presence of grazing animals.
- ❧ Winter is cold and windy and summer is hot and dry.



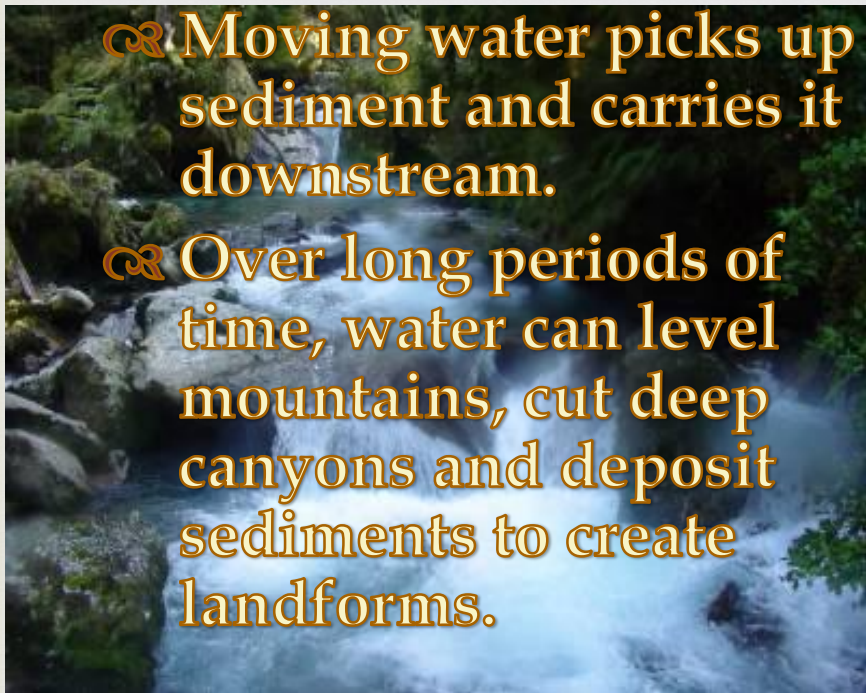
# WATER BIOMES



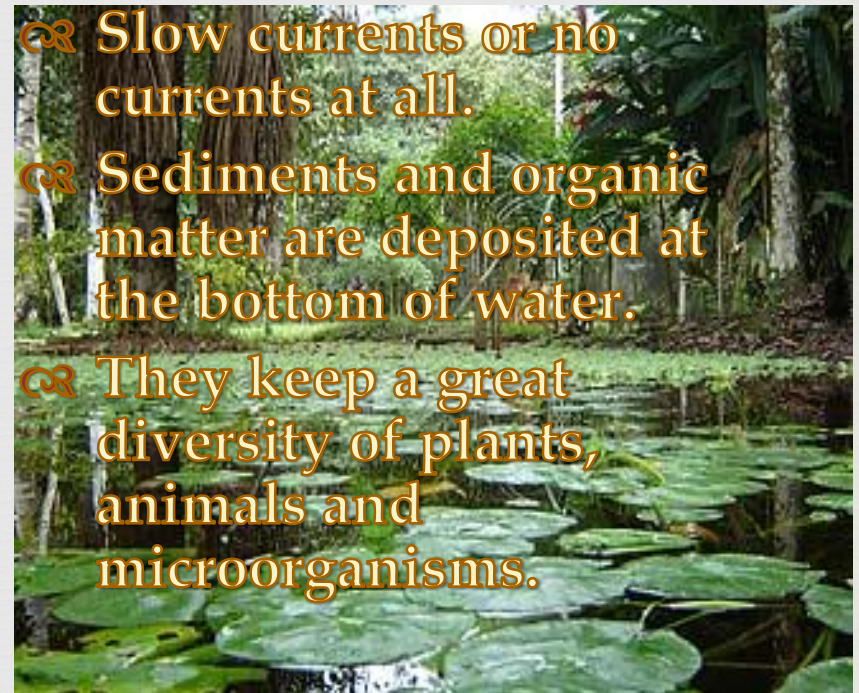
# FRESH WATER BIOMES

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## FLOWING WATER



## STANDING WATER



# WETLANDS

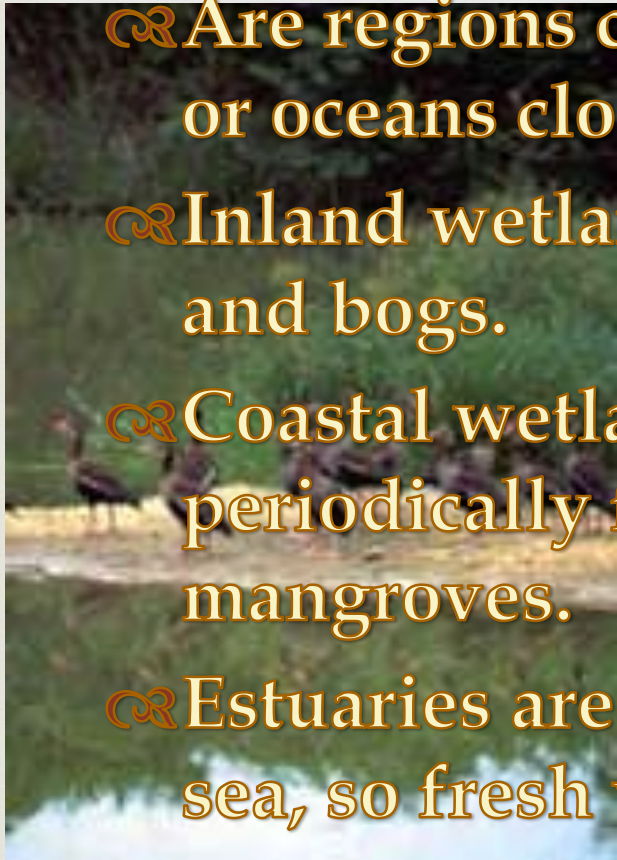


☞ Are regions covered by the water of rivers or oceans close to them.

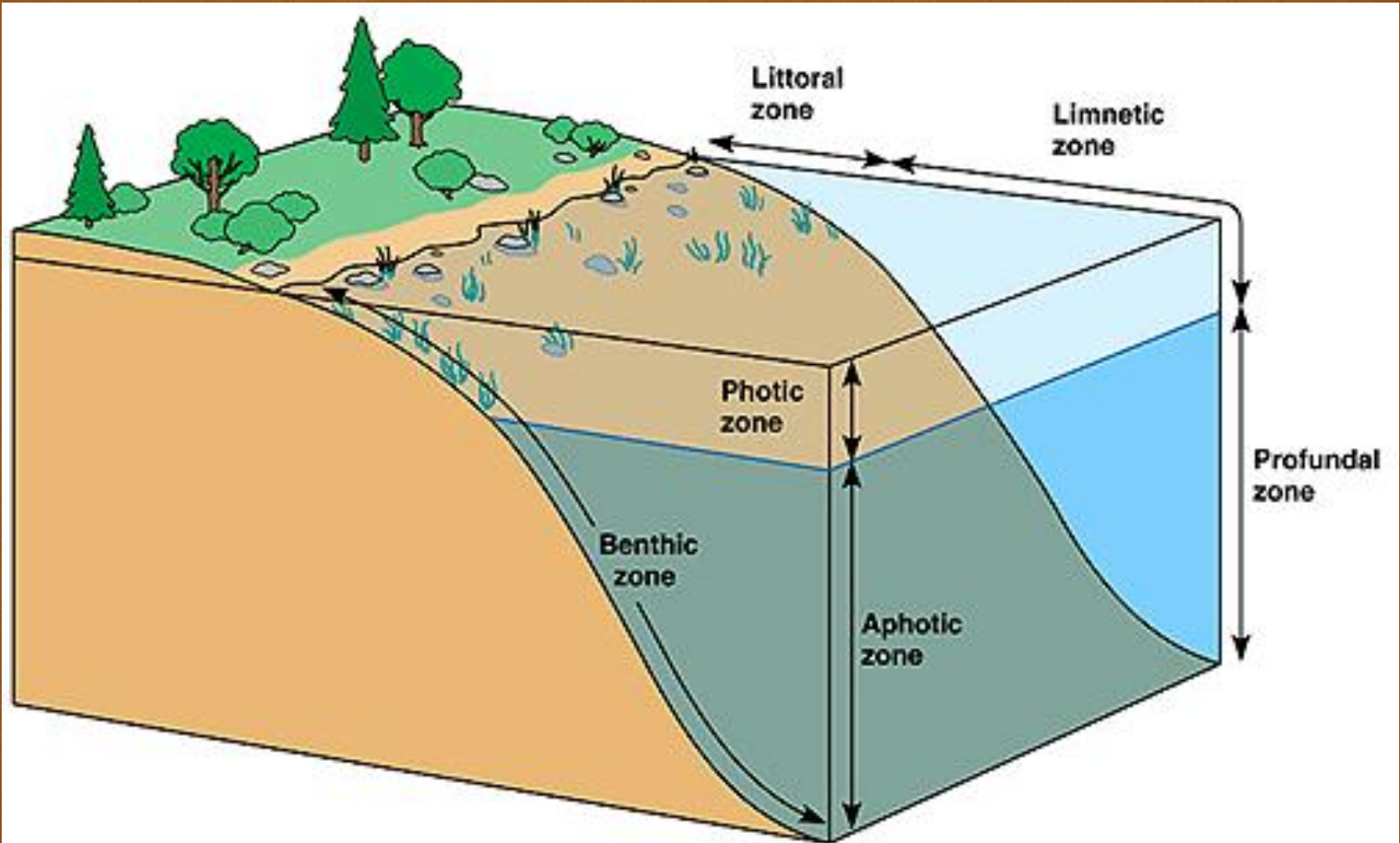
☞ Inland wetlands include marshes, swamps and bogs.

☞ Coastal wetlands are continually or periodically flooded with salt water as mangroves.

☞ Estuaries are zones in which rivers meet the sea, so fresh water mixes with salt water



# LAKE ZONATION





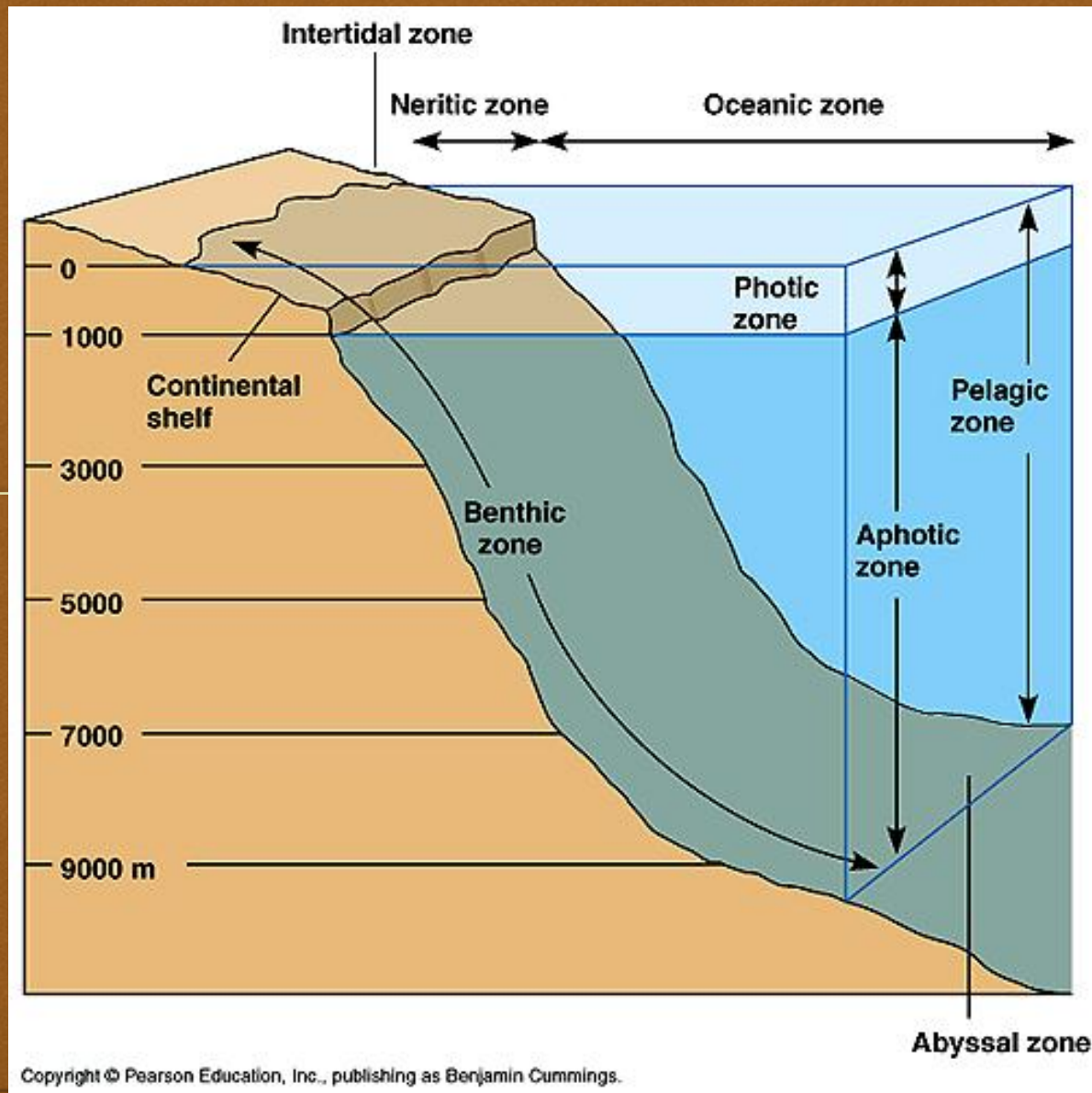


# SALTWATER BIOMES

More than 70 percent of Earth is covered by the marine biome. The marine biome includes the oceans and the shorelines.

Light, temperature and water pressure vary with depth the same as salinity.

# MARINE ZONATION



# INTERTIDAL AND NERITIC ZONES

☞ The intertidal zone lies at the edge of the ocean. Organisms in the intertidal zone must survive extreme variations in both temperature and salinity.

☞ The neritic zone lies over the continental shelf and is rich in mineral nutrients. Light penetrates to the bottom allowing the growth of algae and phytoplankton.

# OCEANIC AND PHOTIC ZONES



∞ In the oceanic zone, nutrients are scarce, so the variety of organisms is less dense than in the neritic zone. The organisms are pelagic (free-swimming)

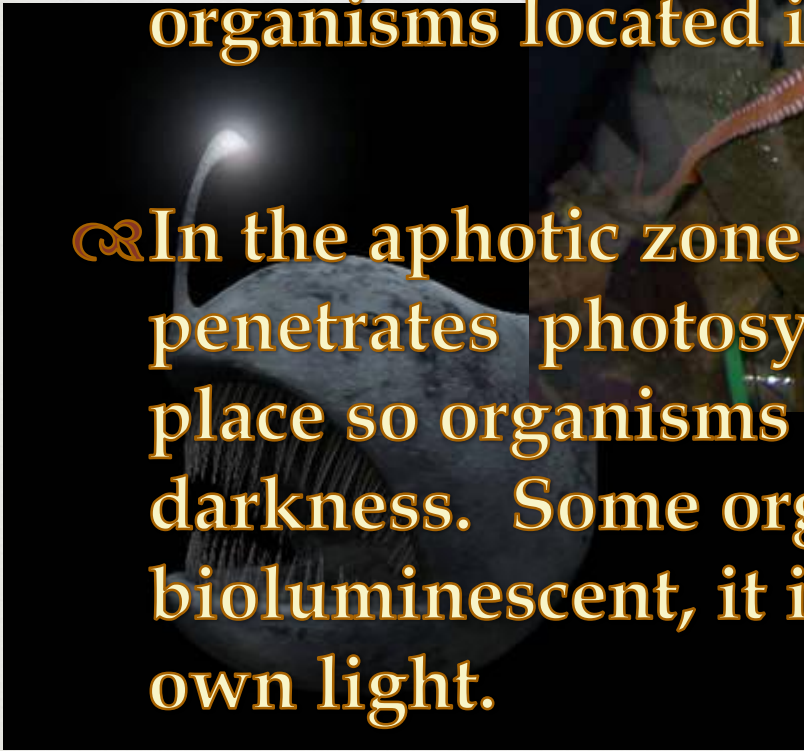
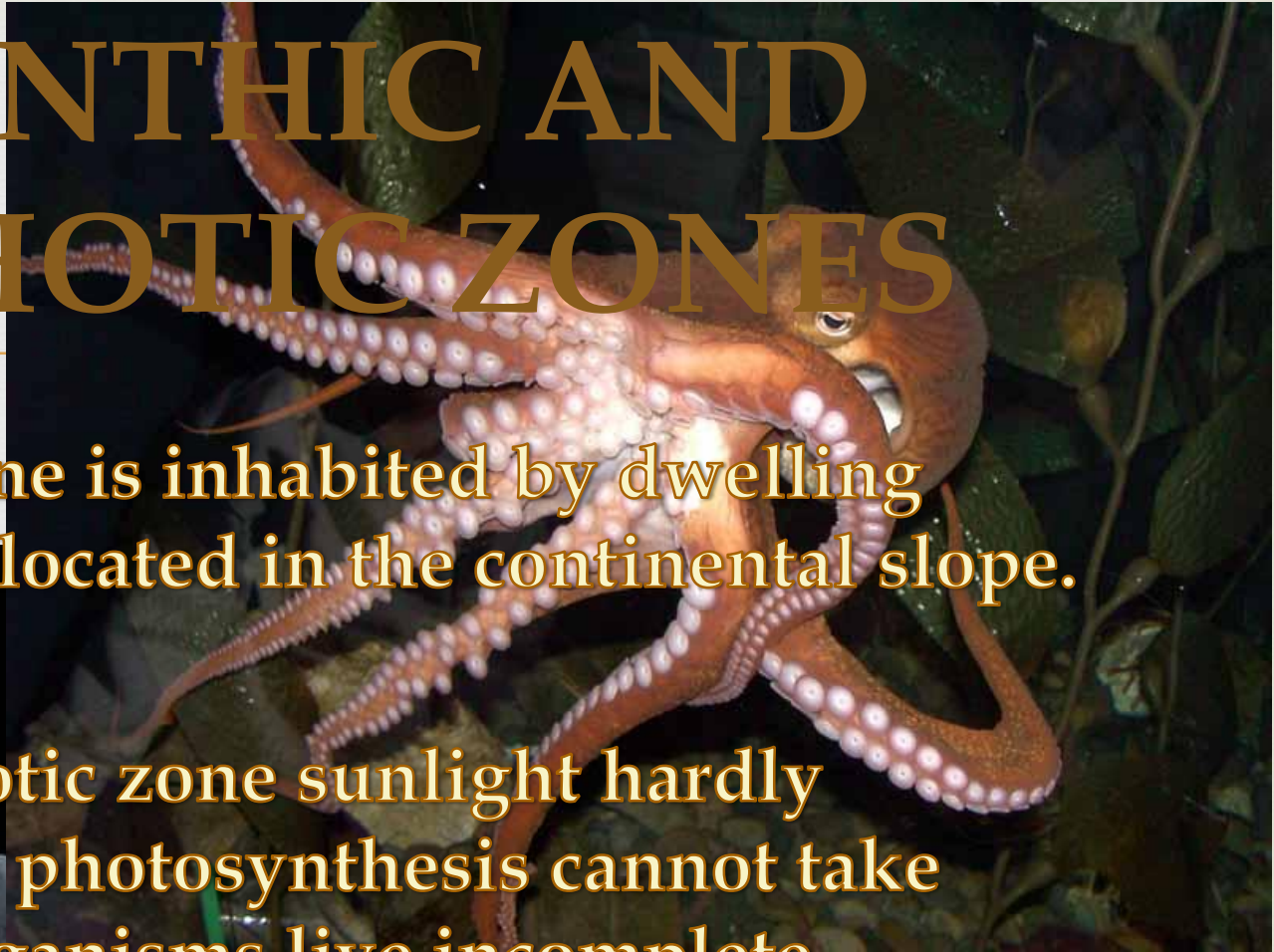
∞ In the photic zone light penetrates to a depth of about 200 m. It is home of phytoplankton, source of energy of zooplankton that is eaten by larger animals.

# BENTHIC AND APHOTIC ZONES

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∞ Benthic zone is inhabited by dwelling organisms located in the continental slope.

∞ In the aphotic zone sunlight hardly penetrates photosynthesis cannot take place so organisms live in complete darkness. Some organisms are bioluminescent, it is that they produce their own light.





We are part of this ecosystem called  
Earth, so we must think about the  
consequences of our actions, because for  
sure they will affect us too for good or  
bad.

THANKS...