

Biomes and Biodiversity

Introduce song by: **Mr Parr:**

<http://www.youtube.com/watch?v=0A5eeE93uEA>



BIOMES

Introduction to Biomes By: Frank Gregorio

<https://www.youtube.com/watch?v=hly0ZlyPPDg>

Biomes of the World for Children:

By: Free School

<https://www.youtube.com/watch?v=0fb8143ndo8>

World Biomes: An Introduction to Climate

By: Rob & Jonas' Filmmaking Tips

<https://www.youtube.com/watch?v=ZouWWVyz9v8>

BIOMES

- **Collection of communities adapted to generally similar abiotic and biotic conditions**

BIOMES

- **Biotic**

- of, relating to, or resulting from living things, especially in their ecological relations

BIOMES

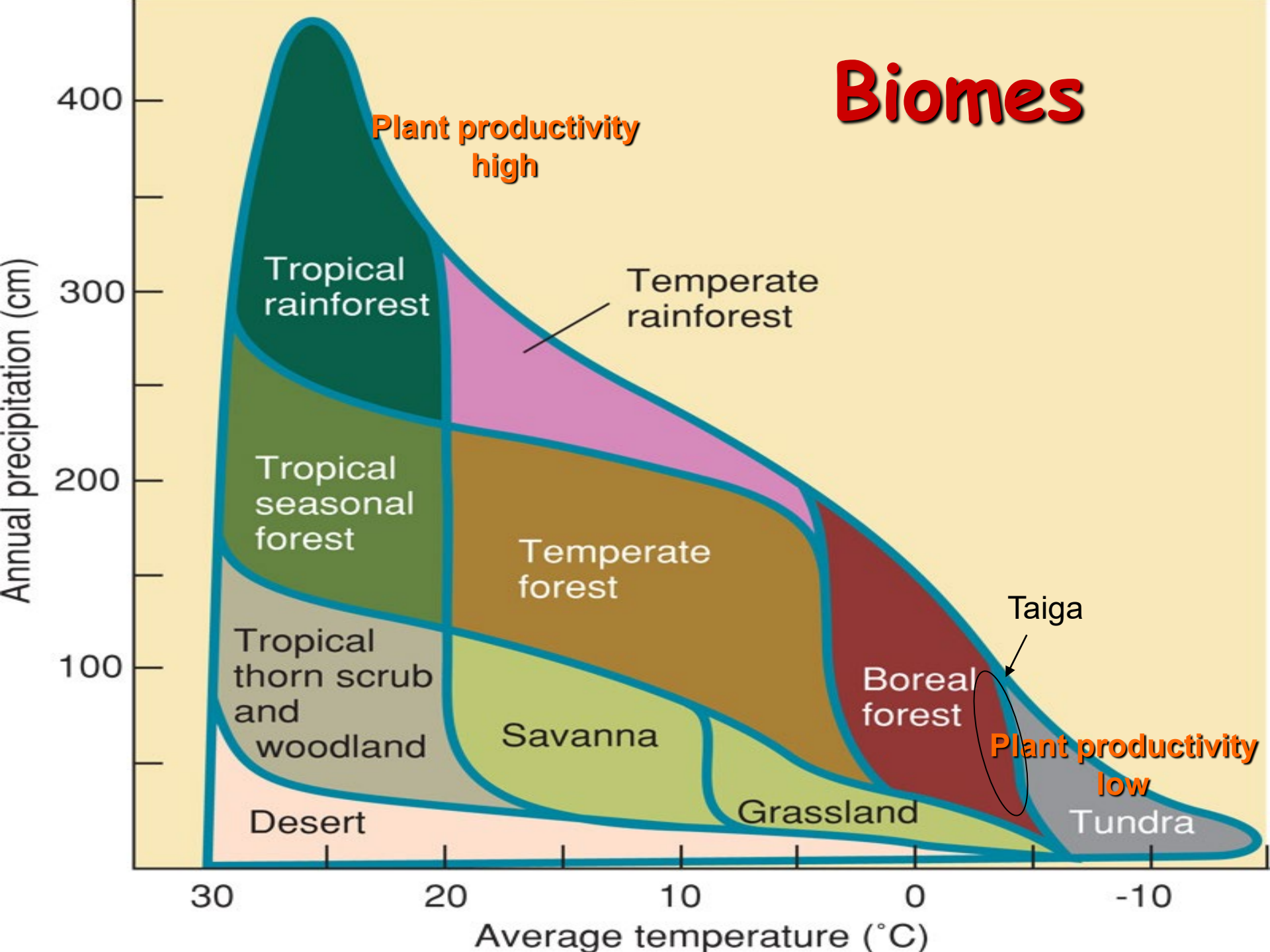
- **Abiotic**

- physical rather than biological;
not derived from living
organisms.
- devoid of life; sterile.

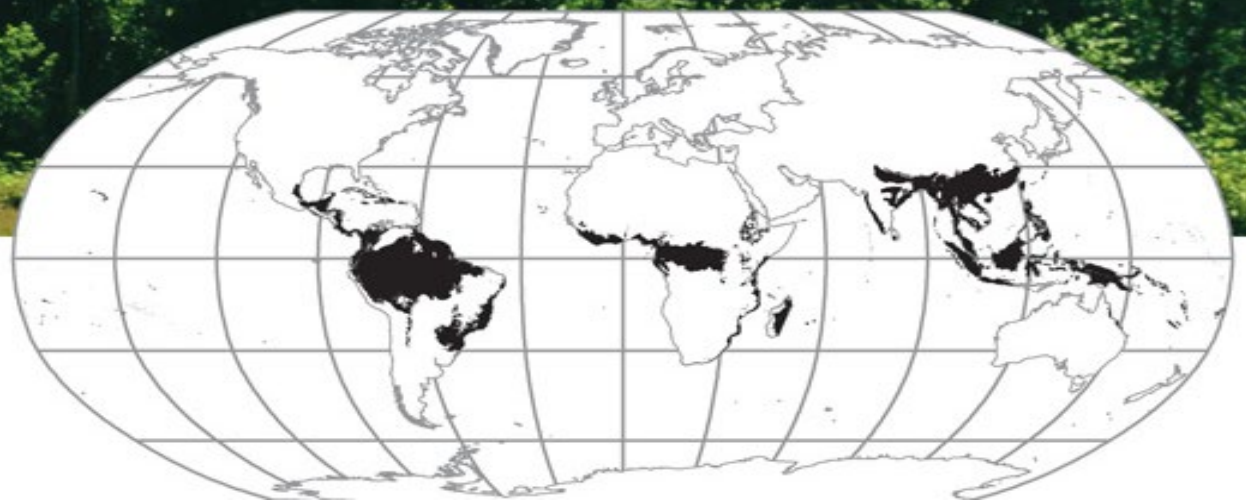
BIOME DETERMINANTS

- **Climate** *most important
- **Topography**
- **Soil types**
- **Rainfall**
- **Wind patterns**

Biomes

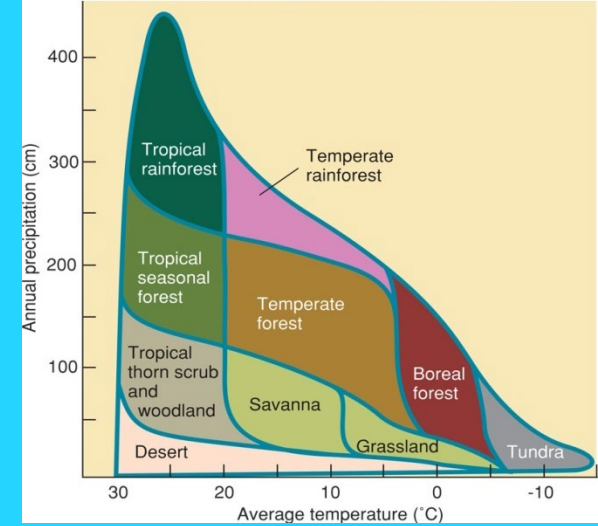


Tropical Rainforests

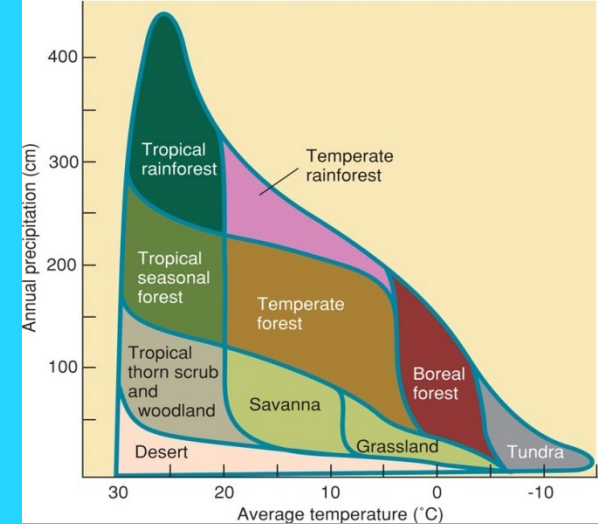


Tropical Seasonal Forests

- Creatures
 - Macaw
 - Boa
 - Jaguar

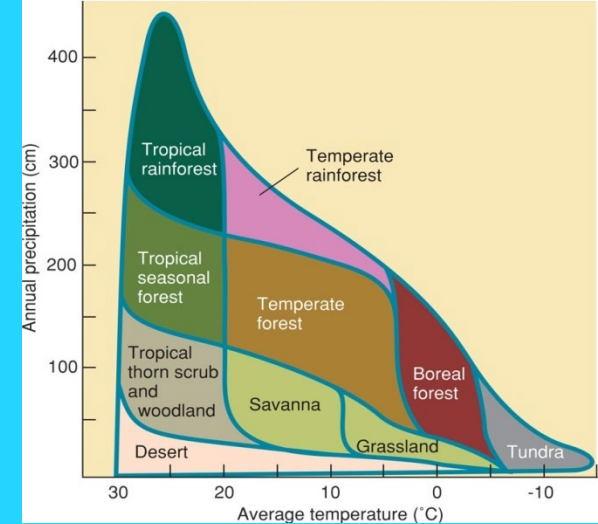


Tropical Seasonal Forests



- Characteristics by distinct **hot** seasons instead of an uniform **moderate** rainfall year-around.
 - greatest **Diverse** population of **animals and plants**

Tropical Seasonal Forests

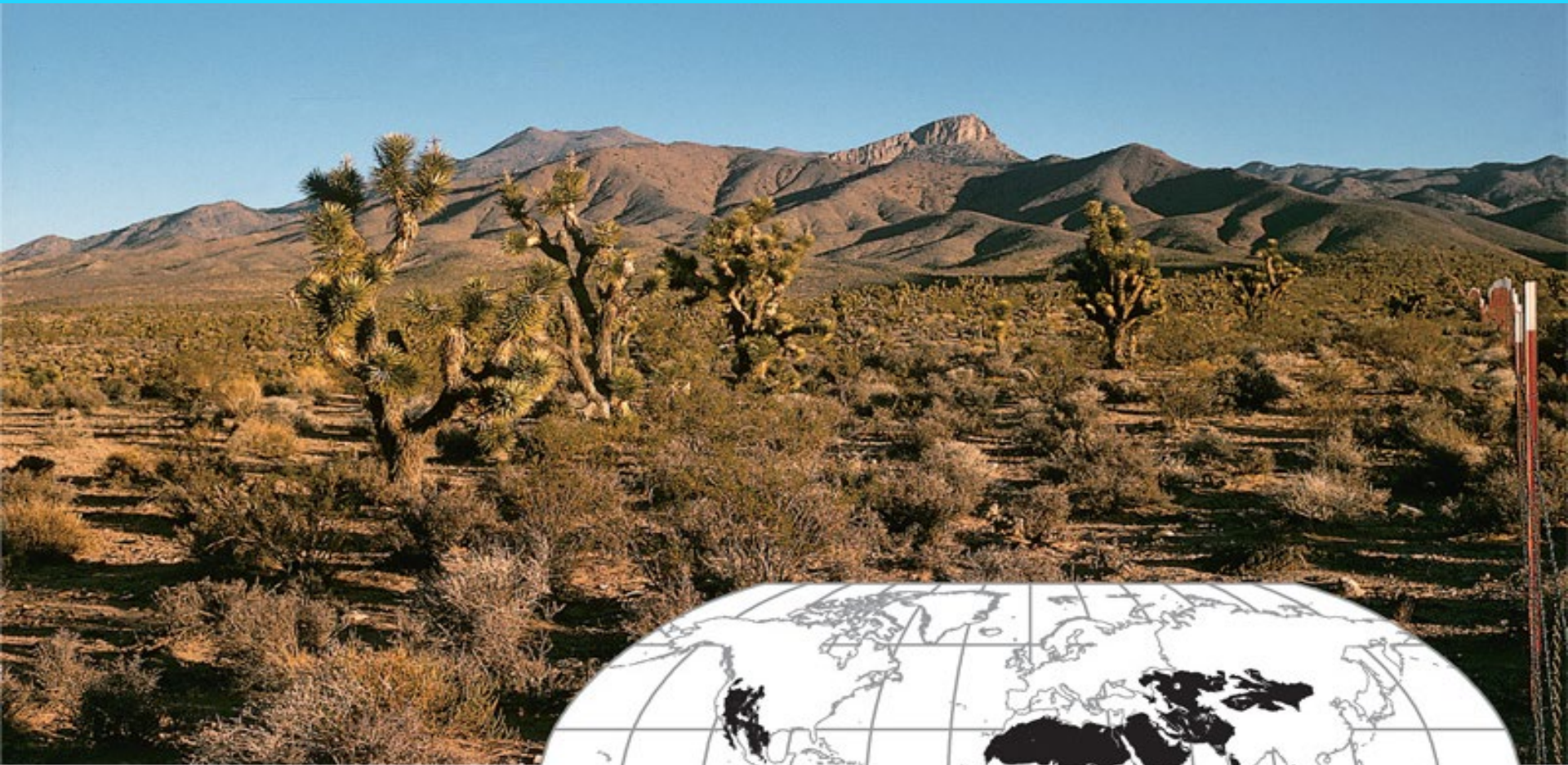


Tallest trees

Monkeys, birds, insects,

So large and dense and have
found many medication.

Desert



Deserts

- **Characterized by low moisture levels and precipitation that is infrequent and unpredictable from year to year.**
- **Wide daily and seasonal temperature fluctuations.**

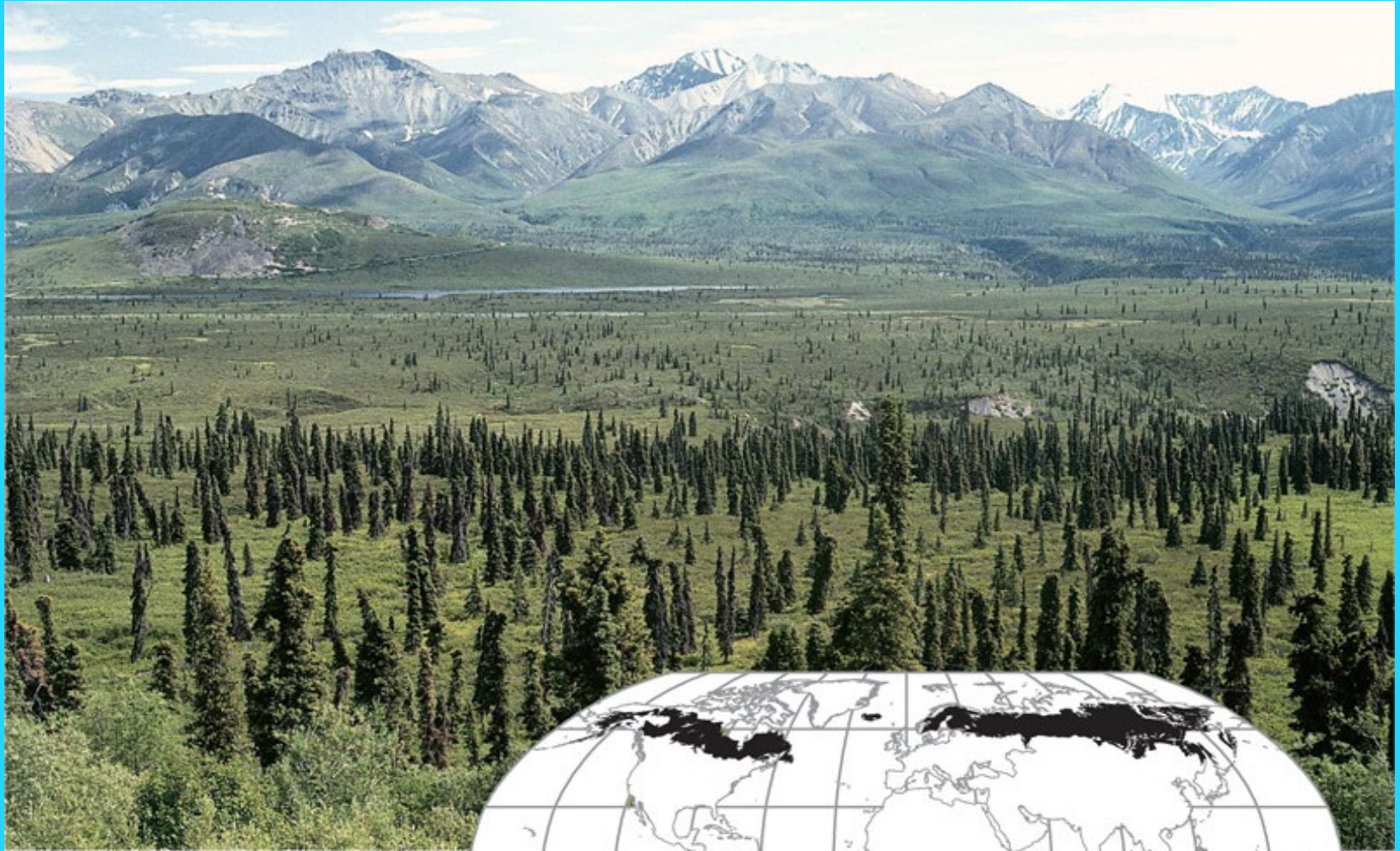
Deserts

- **Plants** exhibit water conservation characteristics
 - seasonal leaf production
 - Water storage issues
 - Thick epidermal layers (often waxy surface)

Deserts

- **Plants** exhibit water conservation characteristics
 - spines and thorns
 - Reduce water loss (SA/vol. low)
 - discourage predation
 - provide shade
 - Hard to grow in

Boreal Forests / Taiga



Conifer Forests

- Cone-bearing trees
 - Needle-like leaves with **low** surface area & **waxy** coatings
 - minimize **water** loss
- **Taiga (tundra without snow)**
 - Northernmost edge of boreal forest

Coniferous Forests



Boreal Forests



Temperate Rainforests



Conifer Forests

- **Boreal Forests**

- Northern coniferous forests

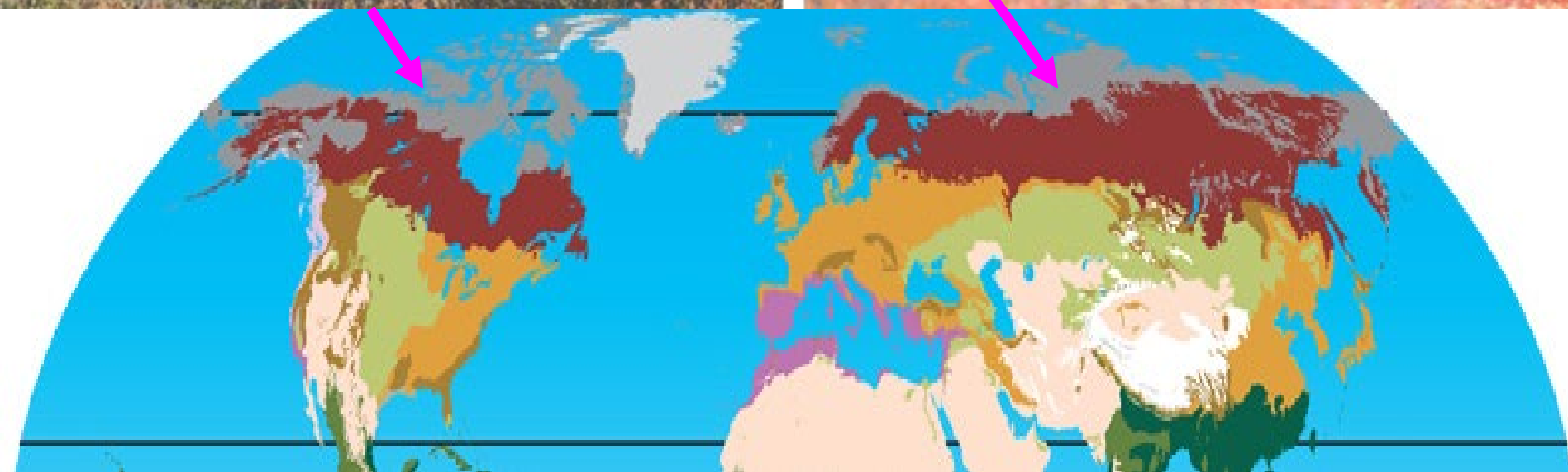
- **Temperate Rainforests**

- Pacific Northwest

Tundra



Tundra



Tundra

- **short** growing season
- Cold/harsh **winters**
- **Water** locked up much of the year (frozen)
- **stunted** vegetation
- Most animals **migrate** south or downhill in winter

Savanna



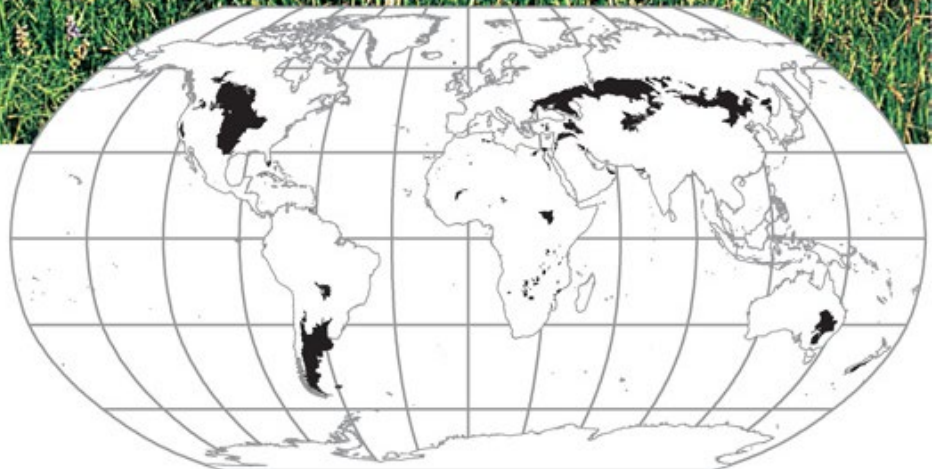
Grasslands/Savannas

- Communities of **grasses**, seasonal herbaceous flowering plants, and open savannas
- Few trees due to inadequate **rainfall**.
- Large daily and seasonal **temperature** fluctuations
- Frequent **grass fires**

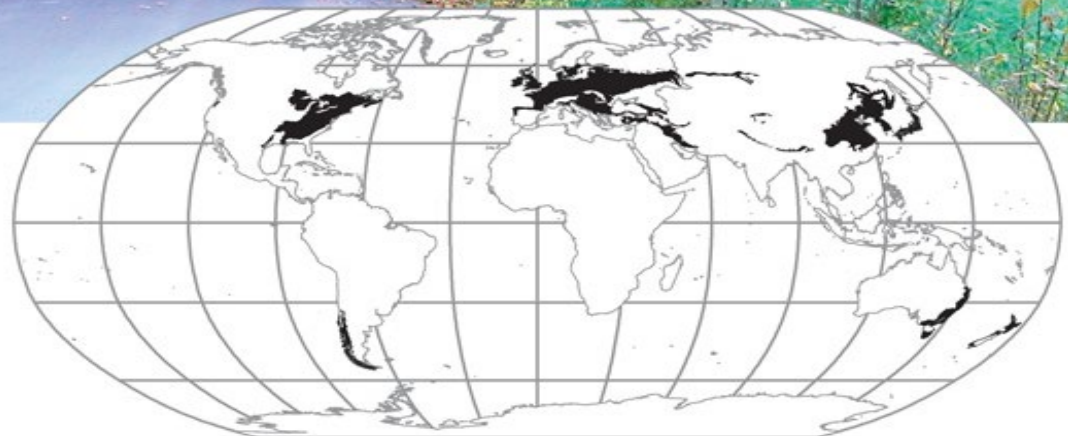
Temperate grassland



Grassland



Temperate deciduous forests



Deciduous

- Lots of **trees**
- Lots of **leaves**
- Deer, Bear, Rabbits
- Trees **lose** leaves

Broad-leaf evergreen forests



Cypress Swamp



Live oak

Broad-Leaved Forests

(Deciduous and Evergreen)

we live here

- Occur **throughout** the world where rainfall is moderate and temperatures are **moderate**.
- Deciduous trees shed **leaves** when water is scarce or ground is frozen (seasonal).

Broad-Leaved Forests

(Deciduous and Evergreen)

we live here

- Broad-leaf evergreens holds leaves for **full year** (warmer climates)
- Rich variation of tree species
 - Forest canopy **covers** diverse understory.

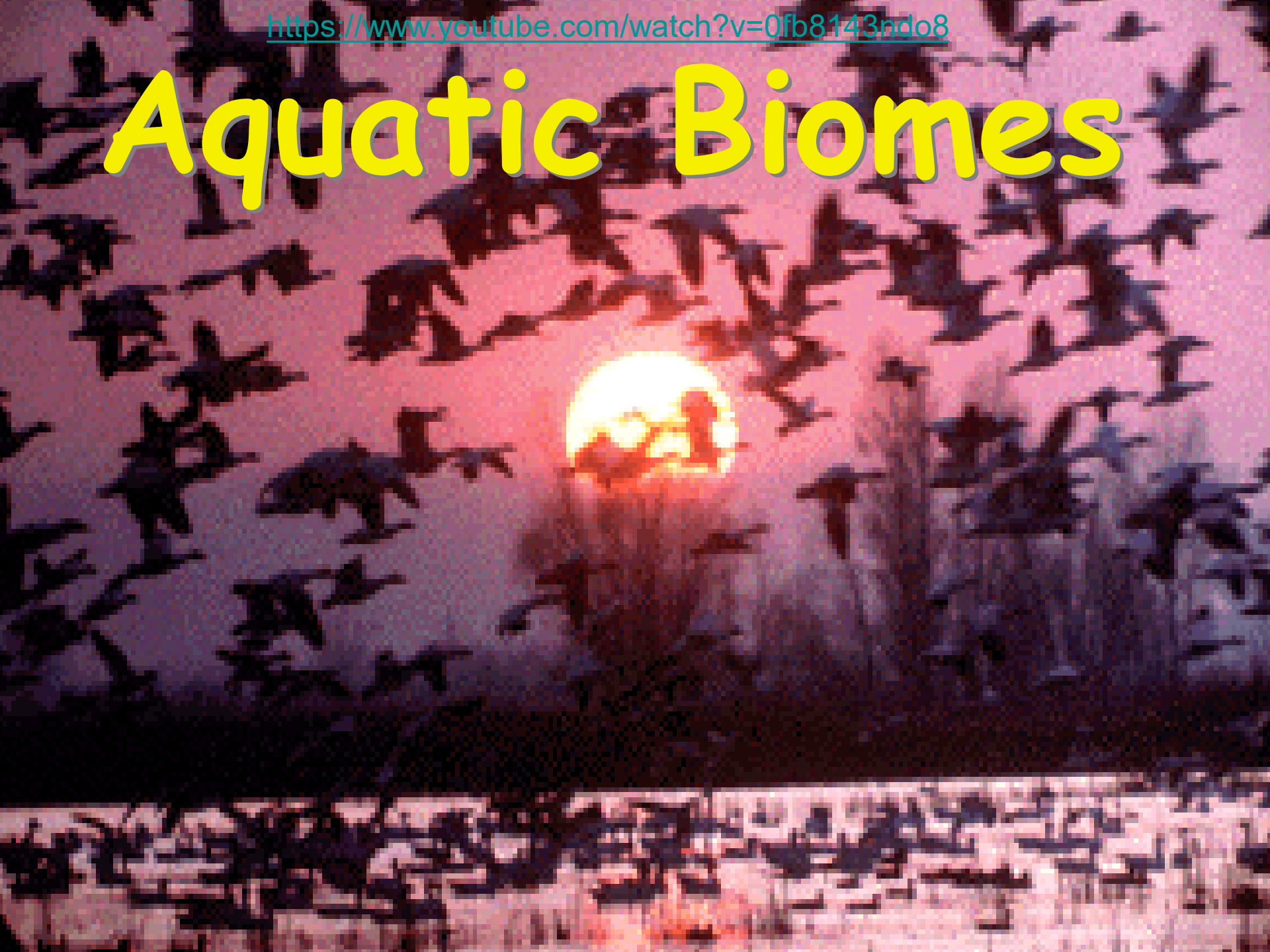


Giant Sequoia

“General **Sherman** tree” in Sequoia National Park
32 ft diameter
275 ft tall...

<https://www.youtube.com/watch?v=0fb8143ndo8>

Aquatic Biomes



Marine Ecosystems

- Largest of all biomes
- **Oceans** and streams.

Freshwater Ecosystems

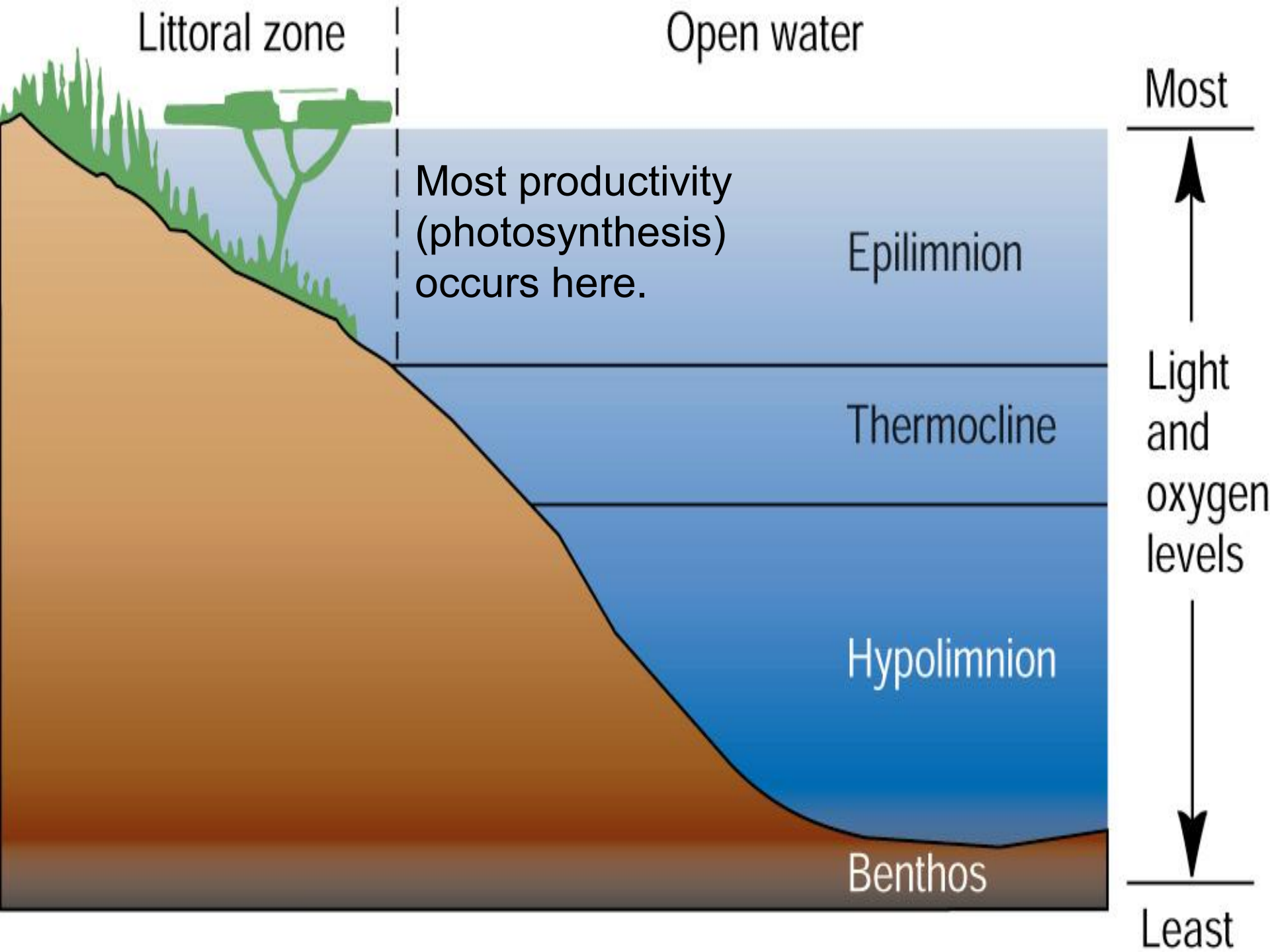
- Include standing waters of **ponds** and **lakes**, as well as flowing waters of **rivers** and **streams**.
- **Wetlands** have both moving and standing
- Cover relatively little total area, but **biologically** distinctive.
- Extremely varied due to individual site influences.

Freshwater Ecosystems

- Cover relatively little total area, but **biologically** distinctive.
- Extremely varied due to individual site influences.

Critical Aquatic Characteristics

- dissolved Substances(O_2 , nutrients)
- suspended Matter (silt, algae)
- depth
- Temperature
- Flow Rate
- Connectivity to Other Aquatic Ecosystems





wetland



estuary

End of

Biomes and Biodiversity

