

Fossil evidence suggests that the frozen continent of Antarctica was once covered in temperate forest.

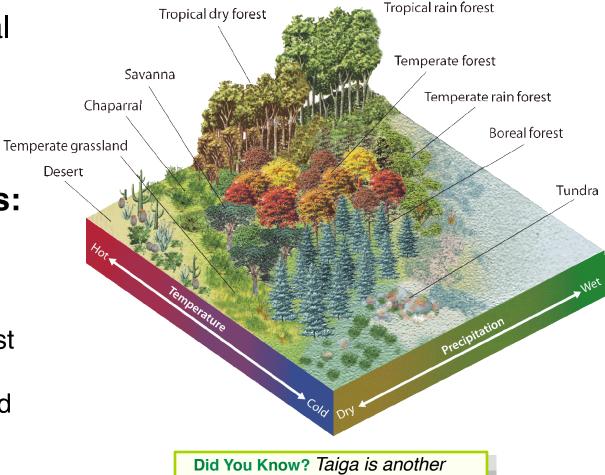
Ban Holt Sr/GRACE team/CLR/NASA

## **Earth's Major Biomes**

 Groups of terrestrial ecosystems that share biotic and abiotic conditions

#### 10 primary biomes:

- tropical rain forest
- dry forest savanna
- desert
- temperate rain forest
- temperate forest
- temperate grassland
- chaparral
- boreal forest
- tundra



name for boreal forest.

### **Climate and Climatographs**

- Climate: Average conditions, including temperature and precipitation, over long periods of time in a given area
- Weather: Day-to-day conditions in Earth's atmosphere
- Climatographs: Diagrams that
  summarize an area's average monthly
  temperature and precipitation
- Each biome has a set of characteristic organisms adapted to its particular climate conditions.



# **Biomes and Net Primary Production**

- Gross primary production: The rate at which primary producers undergo photosynthesis
- Net primary production: The amount of organic matter (biomass) that remains after primary producers use some to carry out cellular respiration
- Ecosystems vary in their net primary productivity, the rate at which primary producers convert energy to biomass.
- Warm, wet biomes generally have higher net primary productivity than cold, dry biomes.





#### Chart of Net Primary Productivity for biomes

