

Grasslands

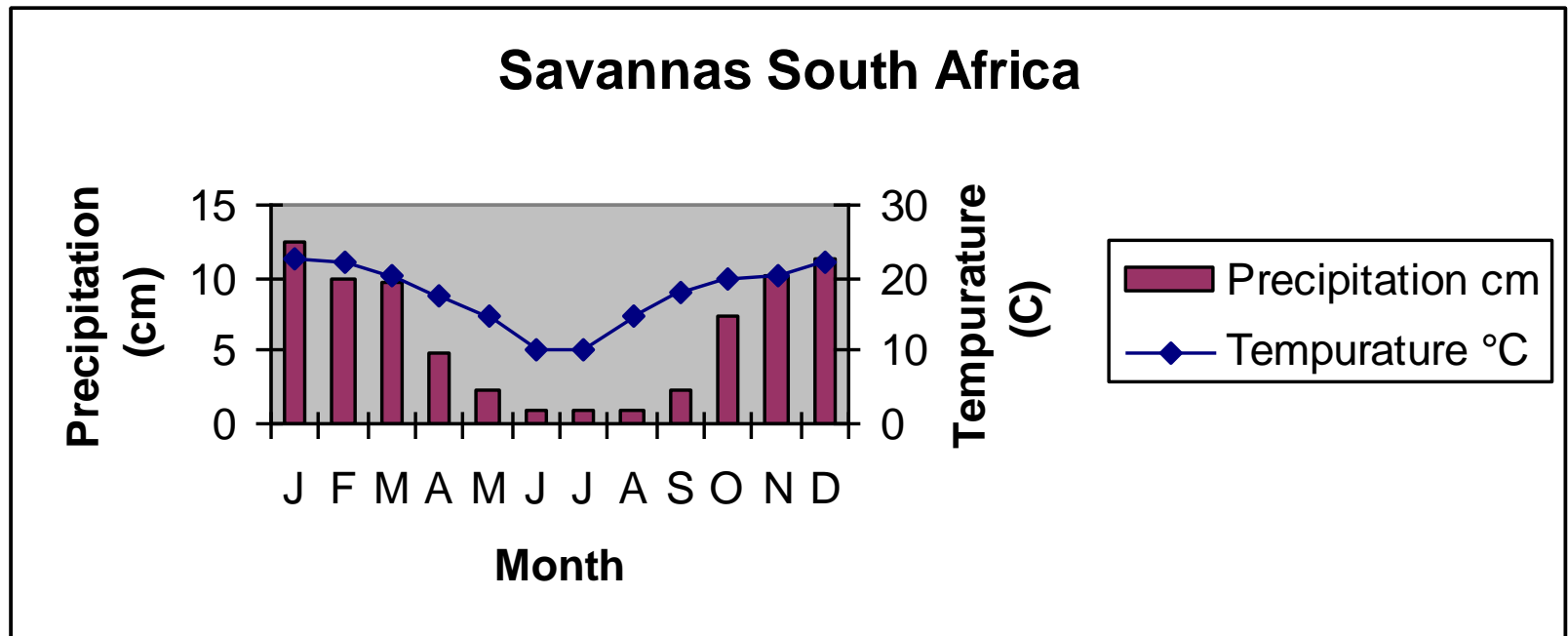
The Grasslands consist of two parts, the Savannas and the temperate Grasslands:

- The Temperate Grasslands used to be the largest biome but have since shrunk due to farming.
- In North America there is tall grass prairies in moist regions and short grass prairies in drier regions.
- It consists of large rolling terrains of grass, a few short shrubs and occasional trees.

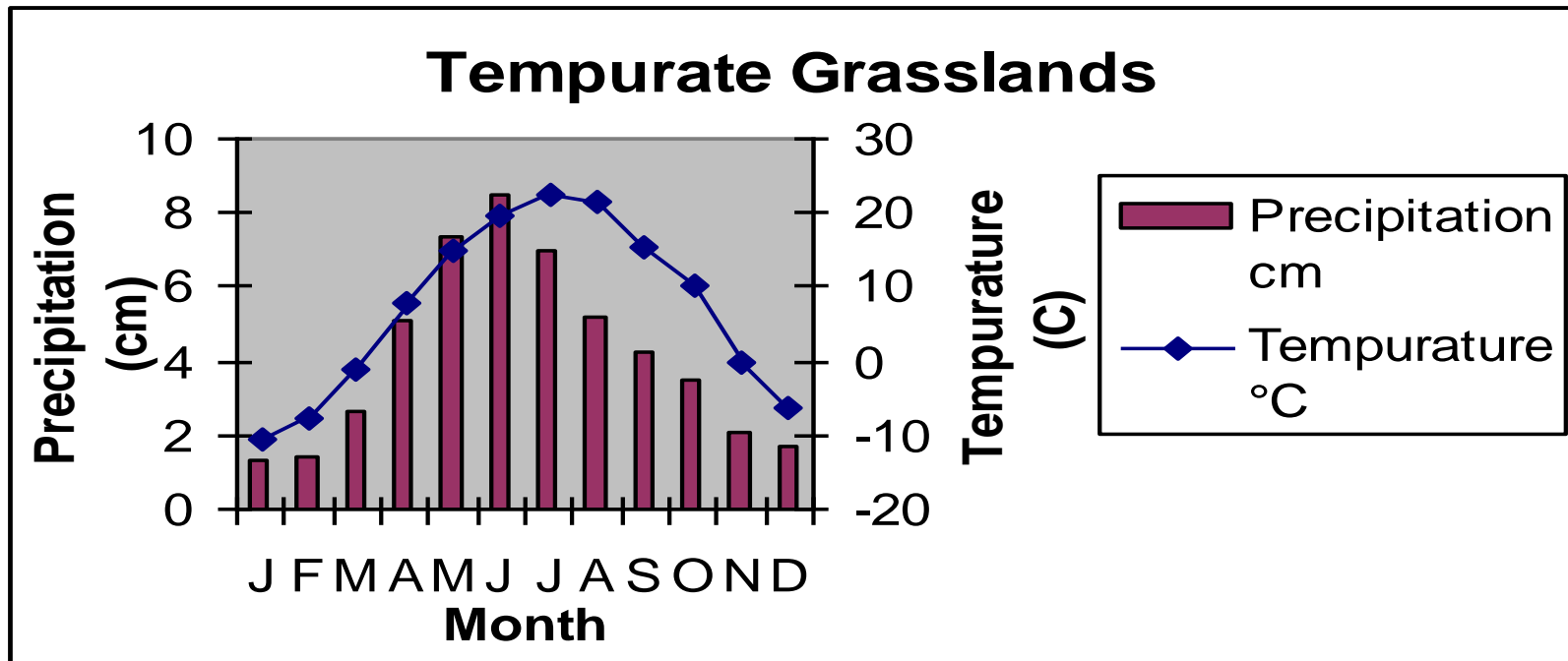
- Savannas are tropical grasslands found in Africa south of the Sahara desert.
- Found between a tropical rainforest and a desert biome. They do not receive enough rain to support many trees, only a few scattered isolated trees.



Savannas of South Africa



Temperate Grasslands



- The climate in a savanna typically consists of warm, wet summers followed by cold, dry winters with heavy frosts.
- Latitude contributes to climate factors because grasslands are located all over the world, but aren't too far from the equator.
- Geographic position and prevailing winds are a factor because there are winds blowing over the grasslands that come from all over the continent.

- Land and water are a couple of the climate controls because grassland isn't often located around large bodies of water.
- Mountains and highlands are a factor because mountains and hills surround grassland areas.

- Rainfall 15 to 30 inches a year and is found between temperate forests and deserts that cannot support dense stands of trees
- Dry season has average of 4 inches of rain
- Between December and February there is NO rain
- Frequent droughts
- Summer there is a lot of rain, causing it to be hot and very humid
- Grasslands are cooler during the dry season – around 70°F
- Monsoon rains begin in May in Africa - average of 15 to 25 inches of rainfall during this time
- Grasslands are known as veldts in South Africa.

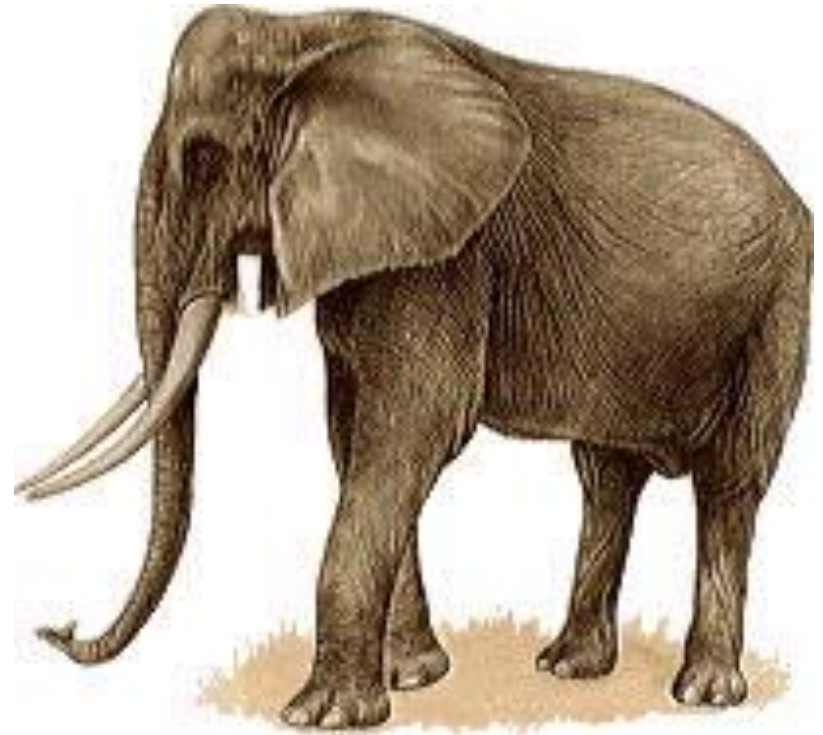
Human Impact

- Humans have caused great changes on the face of the grasslands across the globe.
- Many large areas have become developed into farmland, because of their low flat terrain.
- Often, large fires are started, and quickly tear across the land.
- Moreover, many animals have been hunted near to extinction (ie. Lions, elephants, bison)
- Thankfully, the hunting of such animals has been banned.
- Only 1% of the total grasslands are protected today, but governments are finally more aware of the issue at hand.

- National parks are an excellent way to preserve these lands.
- Erosion and pollution have become major causes of destruction in the grasslands.
- Human industrial waste has become the leading danger to the development of the grasslands.

Animal And Plant Life In the Grasslands

Animals Found in the
Grasslands



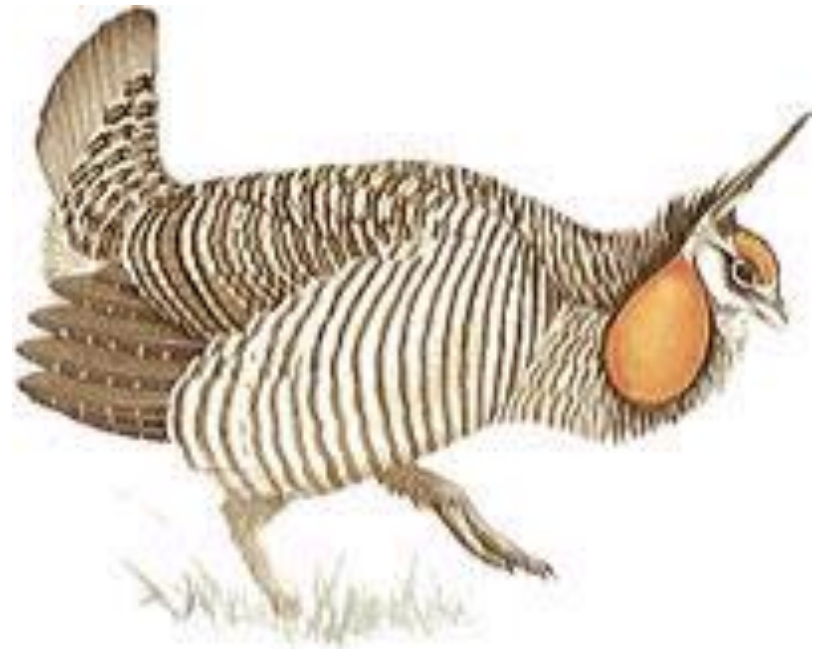
- Because Grasslands do not have heavy tree and/or plant life, many large grazing animals are found in the areas.
- Examples of these include Elephants, Zebras and bison. Other animals found in this region include the Black Rhinoceros, Black-Footed Ferret, Brown Hyena, Giraffe, Greater Prairie Chicken, Prairie Dogs, Lion, Ostrich, Pronghorn and Warthog.



- Grasslands exist on every continent except for Antarctica and therefore have a very large range of life depending on conditions in each area.

Animal Adaptations

- As with any biological food chain, the grassland biome allows for every animal to perform a specific niche.
- The roles in the area can be broadly generalized into Producers (being plants), Predators and Prey.



- The adaptations of predators are very similar to one another. They vary in the sense that these different species are in competition with one another, but generally have adapted similar traits.
- The adaptations of prey are also very characteristic. Small animals, but sometimes in the form of larger animal prey such as Elk, Moose and Zebra, have adapted not only to meet their basic needs, but also for protection from predators.

Predators

- For example, a prominent carnivore such as a lion is tan in colour in order to blend into the generally brownly-orange grassland environment.
- Well developed eyes are also crucial to ensure for the ability to stalk prey from long distances.

Prey

- Browns and tans are often seen in the colour of these prey animals to ensure that they are well concealed in the less than dense surroundings.
- Smaller prey animals have eyes placed on the side of their head to ensure that they can see above, behind and ahead of them in case they are being stalked by a predator.

Plants Found In The Grasslands



- Examples of prominent plant species that exist in grasslands throughout the globe includes the Milkweed Flower, The Prairie Blazing star, Sweet Coneflower, The Stinging Nettle, Poison Ivy, The Red Bud Tree, The Silver Maple Tree, The Box Elder Tree (part of the Maple family) and Big Bluestem Grass (tallest plant on the prairie).

- As with animals, there are many, many more plant species in abundance throughout the grasslands of the globe, and they all share the same characteristic beauty and adaptations as the previously listed plants.

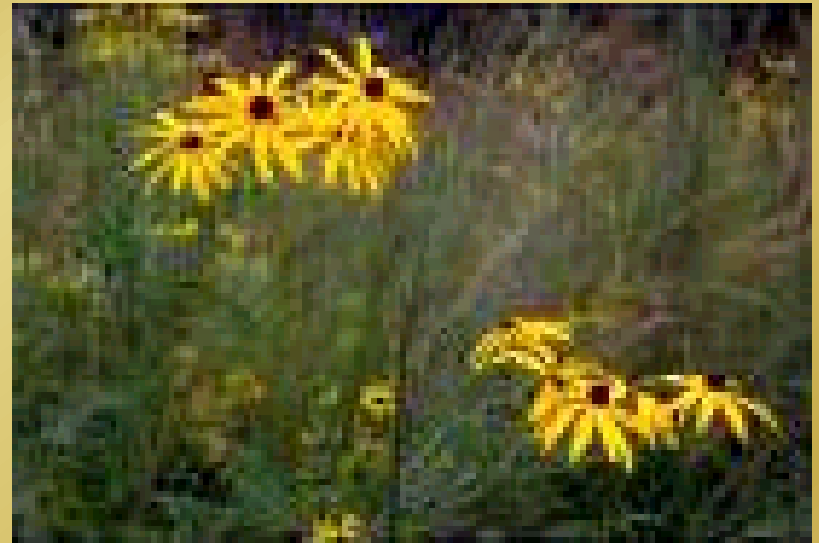


- Unlike grassland animals, plant adaptations are very difficult to generalize
- There is an extremely large diversity of plant life in the grassland region and every species has individually adapted.

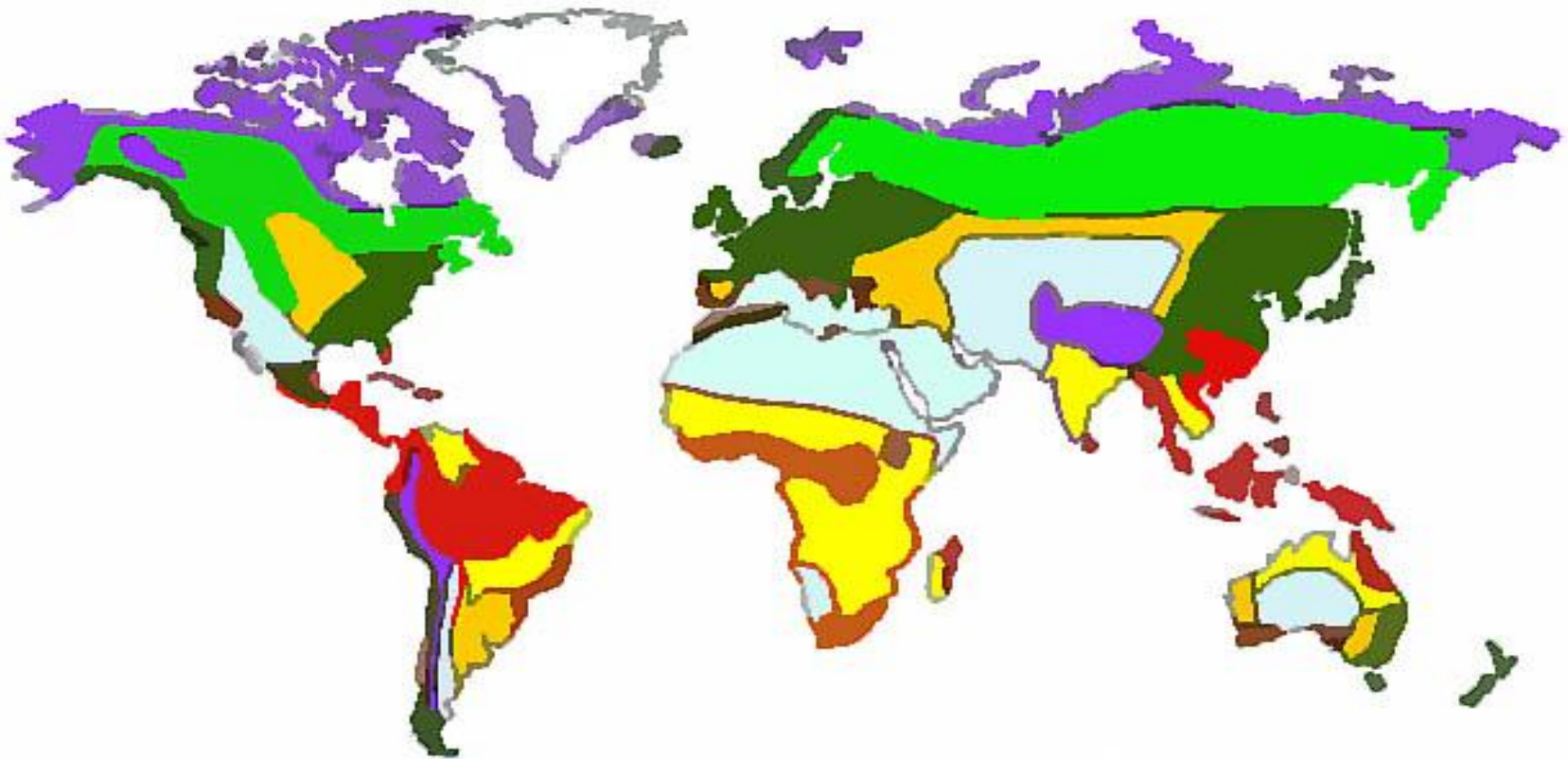
- Plants that are dedicated to pollination and consequently attracting insects are the only type of grassland plant that are colourful and bright.
- In spite of this, a very large portion of grassland plants fall into this category.
- The Milkweed Flower and Prairie Blazing star have developed visibly bright and vibrant flowers to aid insects in pollination.
- These plants are usually very small and hidden in the underbrush to avoid being trampled by large animals.

- Some plants are dangerous to both animals and humans.
- . Examples are Poison Ivy and The Stinging Nettle.
- These plants are focused on nothing but photosynthesis and extracting minerals from the ground and have developed these dangerous characteristics to keep mammals of any size away from them.
- There are very few trees in the grasslands, however they do exist.
- They do not grow to be very large however, and almost all reproduce with seeds produced in inedible fruits.
- Almost all of the fruit in these trees, examples being The Box Elder Tree and Maple Tree are poisonous, to avoid mammals eating them before the seeds are dropped.

- Plant life in the grasslands is very abundant and diverse.



A World of Biomes



- Grasslands on the previous map are indicated by the colours yellow and gold.
- Grasslands are spread out over the globe - not confined to one particular area.
- Grasslands are located between 60°N and 45°S
- In terms of longitudes, grasslands are spread all over the map. The African Grasslands are between 15°W and 45°E.

Grasslands in the Future

- More than 60% of the grassland biome has already been modified - forestry and agriculture playing the largest roles. In South Africa only 2.23% of the Grassland Biome is formally conserved. The grassland biome is the least conserved, and the most transformed of all the biomes of the world.
- It is predicted that within the next 100 years, the grasslands could be wiped out of existence.
- That would mean the eradication of some of the world's most rare and beautiful species.
- If steps are not taken to protect one of the most delicate systems on earth it will not be there for the enjoyment of future generations.

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