

HS - 304

Assignment - 1

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Grassland ecosystems

- There are the features that will define the grassland ecosystem
 - Precipitation (rain) in the grassland ecosystem

Grasslands ecosystem receives quite limited rainfall annually, and it covers almost 25% of the total land surface of the Earth. Limited rain causes no forest growth in this region.

Grassland ecosystem is also prone to drought and uncertain precipitation. Different grasslands have a different measurement of annual precipitation. For example — Savanna grassland experiences yearly rainfall up to 30-40 inches whereas steppes in South-Eastern Europe or Siberia the annual rainfall ranges between 10-20 inches.

- The temperature in the grassland ecosystem.

If we talk about the temperature in the grassland ecosystem, the temperature varies a lot throughout the year. In summer season the temperature of temperature grasslands becomes too hot up to 38° celsius whereas in winter seasons it reduces up to -40 degrees celsius, making it too cold.

- Regular fire in the grassland ecosystem.

Fires in grasslands are one of the important characteristics. Due to dry climate and flash lighting, the dry grass catches fire quite easily. Regular fire in grasslands increases the growth of grasses in fields, but it restricted the growth of trees, unfortunately. This is the reason, grassland ecosystem is lacking behind in terms of trees growth.

- Poor vegetation in the grassland ecosystem.

Poor vegetation is also a vital characteristic of the grassland ecosystem. This ecosystem is named grassland because of its huge area covered with grass fields. You will find very few numbers of trees in areas of grassland.

- Key characteristics of the grassland ecosystem.

1. Limited annual rainfall.
2. The dry climate throughout the year.
3. Lack of nutrients in the soil.
4. Grasslands are prone to drought and uncertain precipitation.
5. Frequent fire due to semi-arid climate and slash lighting.
6. Poor vegetation growth dominated by grasses.
7. Grasslands are home for a huge variety of animal species.

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Desert ecosystem characteristics.

- Aridity — It is the common characteristic of all the deserts on the earth. Aridity simply implies the deficiency of moisture or dryness. Desert experiences very less rainfall and thus result in aridity.
- less rainfall/precipitation — less precipitation is one of the major features of deserts and also the reason behind the dryness. The rainfall is seasonal and

occurs only for a limited duration. The annual rainfall that a desert receives every year is just 25-30 cm.

- Extreme temperature -

Desert ecosystems experience extreme temperatures during day and night. The days are very hot and the nights can be extremely cold. It is the sole characteristic of all the desert ecosystems either hot or cold all lacks moisture.

- Velocity of wind.

It tends to be very high in a desert ecosystem. This is the reason deserts experience storms from dust storms of high intensity resulting in the formation of huge sand dunes.

- Scarcity of water

Due to less rainfall, there is a shortage of water in a desert ecosystem. Due to the scarcity of water deserts have to face the situation of drought half of the year.

- Humidity - The humidity level in a desert ecosystem is very low in the daytime and relatively high at night.

- The quality of the soil -

In deserts is very low to grow vegetation. It is dry, rocky, thin, sandy, mainly grey in colour and has no organic contents like nitrogen, phosphorus etc which are essential for the growth of plants.

- Biodiversity in a desert ecosystem.

However, the survival in a desert ecosystem is very hard but despite the fact, deserts are home at various plants and animals. The plants and animals have adapted to survive in the harsh and extreme conditions of the deserts.

- The population density -

Density is very low in deserts and nearby areas as there is there a scarcity of water, food and climatic conditions are too ~~harsh~~ harsh.