

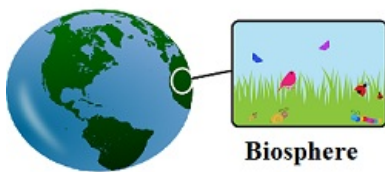
Class 8 Biology Conservation of Plants Animals

Introduction

Introduction

The nature is a boon to us. The part of earth in which living and non-living organisms exist is called the biosphere. It contains a huge variety of species living in it that interdepends on each other. The interrelationship of the species and their relationship with the environment to support life is called biological diversity.

This community of organisms interacting with each other and their physical environment is called ecosystem.



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Deforestation

Deforestation and it's Causes

- This process of removal of a forest or collection of trees from a land and thereafter converting the land to a non-forest use is called deforestation. It has imparted devastating effects on the human beings.
- Now a day with the growing population the need of human beings has also increased. To meet the daily needs the balance in nature is getting imbalanced. Huge population requires more space to live in, more food to eat, more accessories and equipments to lead a comfortable life. Consequently, the nature is suffering.
- Huge numbers of trees are being cut down to meet the need for increased land for housing, fooding.
- Trees are cut to meet the need for wood used in manufacturing paper, furnitures, in food industry, etc.



- In this figure a forest is being cut down to get land for construction of buildings and the trees are used for manufacturing papers. Consequently the green forest is getting converted to barren land and desert.

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Consequences of deforestation

Consequences of deforestation

- Deforestation imparts devastating effects on the natural balance of earth. The devastating consequences of deforestation are as follows:
- It leads to a decrease in the rainfall and hence lowers the level of ground water. This may lead to situation called droughts where people suffers from scarcity of water and hunger.



- Plants take in the carbon-dioxide during the process of photosynthesis and gives exhales oxygen. But less number of trees leads to an increase in the level of carbon-dioxide in the atmosphere.
- This leads to an increase in the temperature and level of pollution on earth.
- The increased tempearture alters the water cycle and leads to reduction of rainfall. This results in occurrence of a situation called drought.
- It also results in the alteration of properties of soil. Deforestation leads to soil erossion because roots of plants holds the soil firmly and hence prevents soil erossion.
- But lesser number of trees results in removal of top layer of soil which in turn exposes the lower portion of soil which is hard, rocky, contains less humus and is less fertile. This way a fertile land gets converted to a barren land. This is called desertification.
- Deforestation also reduces the water holding capacity of soil due which in turn reduces the movement of water to the lower ground from the upper part of the ground resulting in the increased chances of flood.

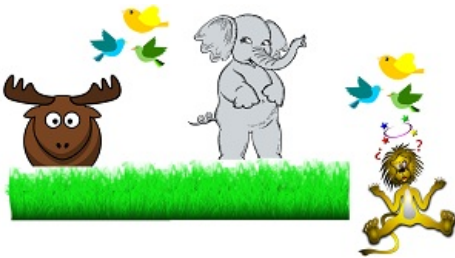


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Flora and fauna

Flora and fauna

- The nature has various species living on it. The plants and animals belonging to a specific region are called flora and fauna of that region.
- The animals of a particular region are called fauna of that region.



Pic :Fauna

- The plants of that region are called flora of that region.



Pic: Flora

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Species and its types

Species and its types

- The groups of population that can interbreed and are capable to give birth to their young ones only with members of their respective species having common characteristics are called **Species**.
- The species of plants and animals that can be found only in a specific region are called **Endemic species**. They may be endemic to a zone, state or country. For example, Greater One-Horned Rhinoceros, Nilgiri Tahr, Bengal Tigers, Lion Tailed Macaque, etc. are some of the endemic animals of India.



- The species of plants and animals whose number is reducing to a level where they may no more exist in nature are called **Endangered species**. For example, Bengal Tiger, Snow Leopard, Blackbuck, Indian Bison (Gaur), etc. are some of the fauna of India whose number has diminished to a level after which they may get extinct.



- The species of plants and animals that no more exist in nature due to unsuitable habitat are called **Extinct species**. For example, Indian Aurochs, Sivatherium, Sumatran Rhinoceros, Pink-Headed Duck, etc. are some of the extinct animals of India.

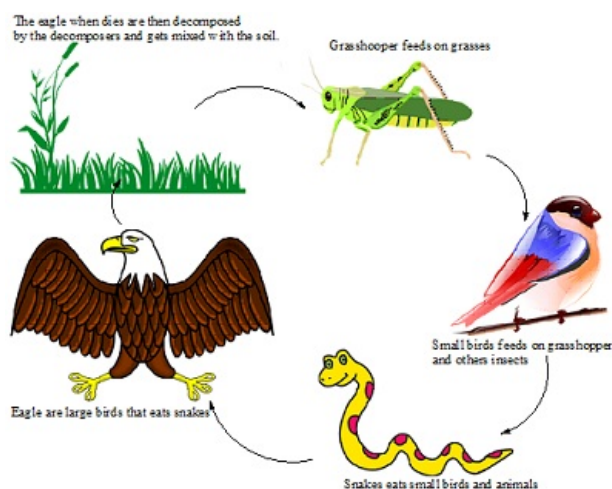


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Conservation of forest and wildlife

Conservation of forest and wildlife

- The flora and fauna of a region are the part of nature. They maintain a balance in the food chain of nature.
- Food chain is a sequence of transfer of energy from one organism to other. The food chain begins with autotrophs (producers) and ends with the consumption of the final energy by the heterotrophs (consumers).



- Plants that produce food by the process of photosynthesis are the autotrophs. The energy produced by the food produced by plants is taken up by the herbivores (animals that eat plants and plant products, eg. Deer, goat, etc.). The energy is then taken up by the carnivores (animals that eat other animals, eg. Tiger, lion, etc.) and omnivores (animal that eat both plants and animals, eg. Bear, human beings, etc.).
- In the absence of any one of these organisms the food chain will get disturbed and will affect rest of the organisms. Therefore it is necessary to take necessary initiatives to conserve the flora and fauna.
- In order to protect the flora and fauna of a region some protected area have been set up. the protected areas include national parks, biosphere reserves, wildlife sanctuaries.
- Any sort of heinous act against nature is prohibited here like killing an poaching of animals, feeling of trees. They don't even allow grazing, plantation, cultivation, etc.

Biosphere reserves

- Biosphere reserves are the extended protected land meant for the conservation of wild animals and plants.
- It is also meant to restore the traditional life of the tribals residing in the the area.



- The biosphere reserves maintains the biological diversity of an area.
- The Biosphere Reserves of india are as follows:

Biosphere Reserve	State
Great Rann of Kutch	Gujarat
Gulf of Mannar	Tamil Nadu
Sunderbanas	West Bengal
Cold Desert	Himachal Pradesh
Nandadevi	Uttarakhand
Nilgiri	Tamil Nadu, Kerala, Karnataka
Dehang-Dibang	Arunachal Pradesh
Panchmarhi	Madhya Pradesh
Seshachalam Hills	Andhra Pradesh
Similipal	Odisha

Achanakamar-Amarkantak	Madhya Pradesh
Manas	Assam
Khangechendzonga	Sikkim
Agasthyamalai	Kerala, Tamil Nadu
Great Nicobar	Andaman and Nicobar Island
Nokrek	Meghalaya
Dibru-Saikhowa	Assam
Panna	Madhya Pradesh

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Wildlife sanctuary

Wildlife sanctuary

- Wildlife sanctuaries are the regions where animals kept protected from any sort of disturbance to their habitat and their surroundings.
- They are also aimed at providing suitable and comfortable living conditions to the animals. Killing, poaching or capturing of animals is strictly prohibited in these regions.
- The sanctuaries in India have beautiful and unique landscapes, dense forests, bushes in the delta of big river and mountain forests to protect ythe animals in their natural habitat.



- Animals like black buck, white eyed buck, elephant, golden cat, gharial, marsh crocodile, rhinoceros, python, etc. are some of the threatened animals are protected and conserved in the wildlife sanctuaries.

Wildlife Sanctuary	State
Bharatpur Bird Sanctuary	Rajasthan
Chilika Lake Bird Sanctuary	Chilika
Mudumalai Sanctuary	Tamil Nadu
Chinnar Wildlife Sanctuary	Kerala
Periyar Wildlife Sanctuary	Kerala
Govind Wildlife Sanctuary	Uttarakhand
Gir National Park and Wildlife Sanctuary	Gujarat

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National park

National park

- National parks are also established for the protection of flora and fauna.



- They are protected areas intended to provide a natural habitat with all natural resources to the animals where they can freely roam and use the habitat.
- These areas are extended and diverse enough to protect the entire ecosystem including the flora, fauna, historic objects and the natural landscapes.
- The National Parks of India are as follows:

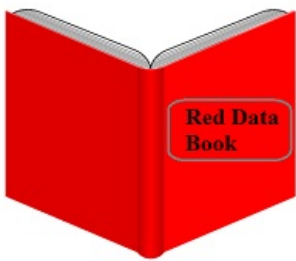
National Park	State
Ranthambhore National Park	Rajasthan
Corbett National Park	Uttarakhand
Bandhavgarh National Park	Madhya Pradesh
Periyar National Park	Kerala
Kaziranga National Park	Assam
Sunderbans	West Bengal
Kanha National Park	Madhya Pradesh

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Red data book

Red data book

- The source book that is used to keep a record of endangered species of plants, animals and other species existing within the territory of the state or country is called red data book.
- There are red data books for plants, animals and various other species.
- It is maintained by the International union for the Conservation of Nature Resources (IUCN).
- It contains the most updated information of the global conservation status of species.



Migration

- Birds and animals travel from their own habitat to a different habitat due to several reasons at a certain period of the year.
- This phenomenon is called migration and the species that migrate are called migrators.
- They migrate to avoid suffering from thrilling heat or cold that imparts a tremendous impact on the availability of food for certain species.
- Birds and animals leave such harsh conditions and look for some different habitat where they can stay comfortably and have food to survive.
- They also migrate to find a suitable habitat to lay eggs and raise their young due to improper and inhospitable conditions in their natural habitat.



Migrating Birds

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Ways to conserve the biosphere

Ways to conserve the biosphere

A healthy biosphere is very important for the healthy sustenance of the living beings living in it. It is our moral duty to protect our environment, keep it healthy and clean and behave well with the other living organisms of the biosphere.

Every species in the biosphere is interdependent on one other. Therefore, extinction of any species can put the healthy living of the other species at stake.

Some of the major steps that must be taken by the human beings at the earliest are as follows:

1. Recycling of papers

- Papers are made of paper pulp. Therefore, increased use of paper means increased demand for trees. This results in cutting of more number of trees which is not at all a healthy sign for the biosphere. Therefore, we should use papers economically.
- We should recycle the used papers and use them again in order to reduce the cutting of trees.



2. Reforestation

- Another important initiative that must be taken as a responsible living being is to plant more and more trees. We already discussed the devastating consequences of deforestation. Therefore, keeping those consequences we should plant more and more trees and reduce the rate of deforestation.
- Even if the deforested land is kept unused it can regenerate re-establish itself and turn into a forest once again.
- If we take care of the nature, the nature will also take a good care of us. So love your surrounding and protect the nature.

