

ECOSYSTEM

2004

August

Thursday

5

concept:-

- The term ecosystem was first proposed by A.G. Tansley in 1935.
- He defined ecosystem as "the system resulting from the integration of all the living and non-living factors of the environment."
- He recognized that an ecosystem includes not only organisms but also physical factors of the environment.
- This term is comprised of two words 'eco' and 'system'.
- The eco means environment while the system means a complex of several inter-related species.
- More recently, the term ecosystem has been defined by P. Odum (1971) as "the basic functional unit of organisms and their environment, interacting with each other and within their own components."
- According to S. Mathavan, "The ecosystem is the sum total of living organisms, the environment, and the processes of interaction between the various units of the system."
- An ecosystem may be as small as a lake as large as the entire earth, the biosphere.

SEPTEMBER						
S	M	T	W	T	F	S
		1	2	3	4	
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Appointments

6

August

Friday

Wk-32 219-147

2004

Dynamic ecosystems are more common as ecosystems are often driven by seasonal changes and as unexpected environmental impacts can occur.

⇒ Structural components of an ecosystem

There are two major components of an ecosystem - A. abiotic and B. biotic.

(A) Abiotic components:-

The term abiotic refers to all kinds non-living elements of the ecosystem which are essential to the dynamics and stability of the ecosystem. It consists of the following:-

(i) Inorganic substances:-

Some inorganic elements are vital for the synthesis of organic compounds and play an important role in the dynamicity of the ecosystem.

These are S, C, H, N, P, O elements. They keep on circulating in the ecosystem in the form of biogeochemical cycles. In these cycles they are first utilized by the producers.

Appointments

AUGUST

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

2004

2004 (ii) organic substances:

August
Saturday

7

Wk-32 220-146

08.00
09.00
10.00
11.00
important organic substances include amino acids, proteins, lipids, carbohydrates and highly organized molecules like DNA, RNA and A.T.P. molecules. These organic components are basic structured and functional components of all living organisms of the ecosystem.

12.00 (iii) Climatic factor:

13.00
14.00
15.00
They are also called physical factors of the ecosystem. Rainfall, temperature, wind, water, soil, light, moisture, pH e.t.c. They play an important role in the dynamism and stability of the ecosystems.

16.00 (iv) Habitat:

17.00
18.00
It is a place where an animal lives. Life is not possible every where on the planet. Hence a space on the earth which is able to contain life is essential for an ecosystem. Sunday 8
EX - sea, pond, lake, ditches, forest, village, cropland e.t.c.