

Biodiversity

Presented by –

Deepak Kumar Kashyap

What is Biodiversity?

- The term Biodiversity was first coined by Walter G. Rosen in 1986.
- The word Biodiversity originates from the Greek word BIOS = LIFE and Latin word DIVERSITAS = VARIETY or DIFFERENCE.
- The whole word BIO DIVERSITY generally therefore means: VARIETY OF LIFE.
- Biodiversity is the degree of variation of life. It is a measure of the variety of organisms present in different ecosystems.

Types Of Biodiversity

- Species Biodiversity
- Genetic Biodiversity
- Ecosystem Biodiversity

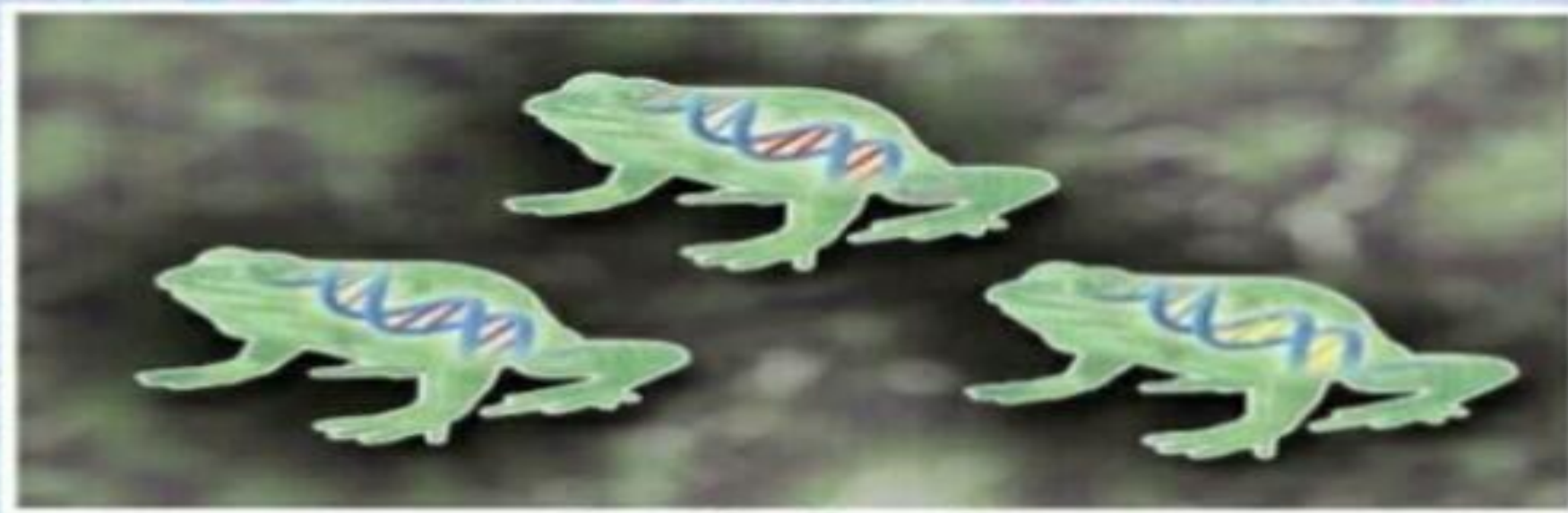
Species Biodiversity

- Species Diversity is the effective number of different species that are represented in a collection of individuals



Genetic Biodiversity

- Genetic diversity, the level of biodiversity refers to the total number of genetic characteristics in the genetic makeup of a species.



Genetic diversity

Ecosystem Biodiversity

- Ecosystem diversity refers to the diversity of a place at the level of ecosystems. The term differs from biodiversity, which refers to variation in species rather than ecosystems.



Ecosystem diversity

BENEFITS OF BIODIVERSITY

Consumptive value:

- Food/Drink
- Fuel
- Medicine
- Better crop varieties
- Industrial Material

Non-Consumptive Value:

- Recreation
- Education and Research
- Traditional value

THREATS TO BIODIVERSITY

Natural causes:

- Narrow geographical area
- Low population
- Low breeding rate
- Natural disasters

Anthropogenic causes:

- Pollution
- Hunting
- Global warming and climate change
- Agriculture



CONSERVATION OF BIODIVERSITY

- Biodiversity inventories
- Conserving Biodiversity in protected Habitats-
- *In situ* conservation
- *Ex situ* conservation
- Seed Bank, Gene Bank, Pollen Bank, DNA Bank



ZOO



Gene Bank



Tiger, Bandhavgarh National Park

Biodiversity Conservation

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graph TD; A[Biodiversity Conservation] --> B[In situ]; A --> C[Ex situ]; B --> D[Sacred groves and lakes]; B --> E[Biosphere Reserves]; B --> F[National parks, wildlife sanctuaries]; E --> G[Terrestrial]; E --> H[Marine]; C --> I[Sacred plant home garden]; C --> J[Seed Bank, Gene bank, Cryopreservation]; J --> K[Botanical garden, Zoological garden, Aquaria];
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In situ

Sacred groves and lakes

Biosphere Reserves

National parks, wildlife sanctuaries

Terrestrial

Marine

Ex situ

Sacred plant home garden

Seed Bank, Gene bank, Cryopreservation

Botanical garden, Zoological garden, Aquaria

BIODIVERSITY IN INDIA

Categories	No. of Indian Species	% of Indian species Evaluated	Species Threatened In India
Mammals	386	59	41%
Birds	1219	—	7%
Reptiles	495	73	46%
Amphibians	207	79	57%
Freshwater Fish	700	46	70%

Conclusion

- Biodiversity is our life. If the Biodiversity got lost at this rate then in near future, the survival of human being will be threatened. So, it is our moral duty to conserve Biodiversity as well our Environment. Long-term maintenance of species and their management requires co-operative efforts across entire landscapes. Biodiversity should be dealt with at scale of habitats or ecosystems rather than at species level.

Thank you