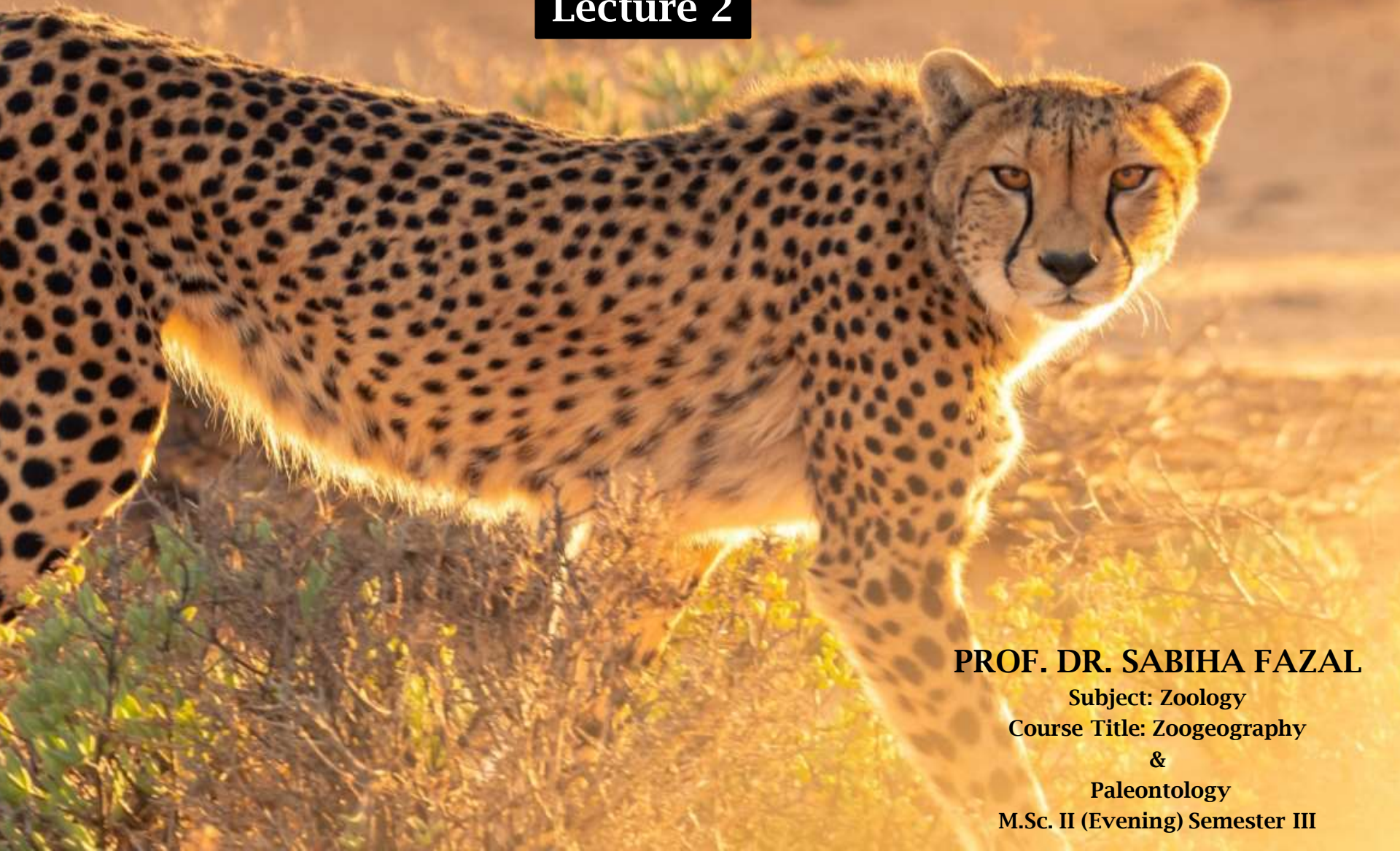


ANIMAL DISTRIBUTION

Lecture 2



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Subject: Zoology

Course Title: Zoogeography

&

Paleontology

M.Sc. II (Evening) Semester III

ASPECTS OF ANIMAL DISTRIBUTION

The background of the slide is a close-up photograph of a cheetah's face and neck, showing its characteristic spotted fur and intense gaze. The image is slightly blurred, giving it a soft, artistic feel. The cheetah is looking towards the right side of the frame.

Distribution of life on earth has three aspects.

Two of which are spatial (concerned with space)-
Bathymetric and Geographical.

One is durational (concerned with time) – Geological

BATHYMETRIC DISTRIBUTION:

Vertical distribution of organisms in space

Term mostly used for the distribution of animals in aquatic realm

Term “Altitudinal” distribution is used to denote the distributional of terrestrial organism

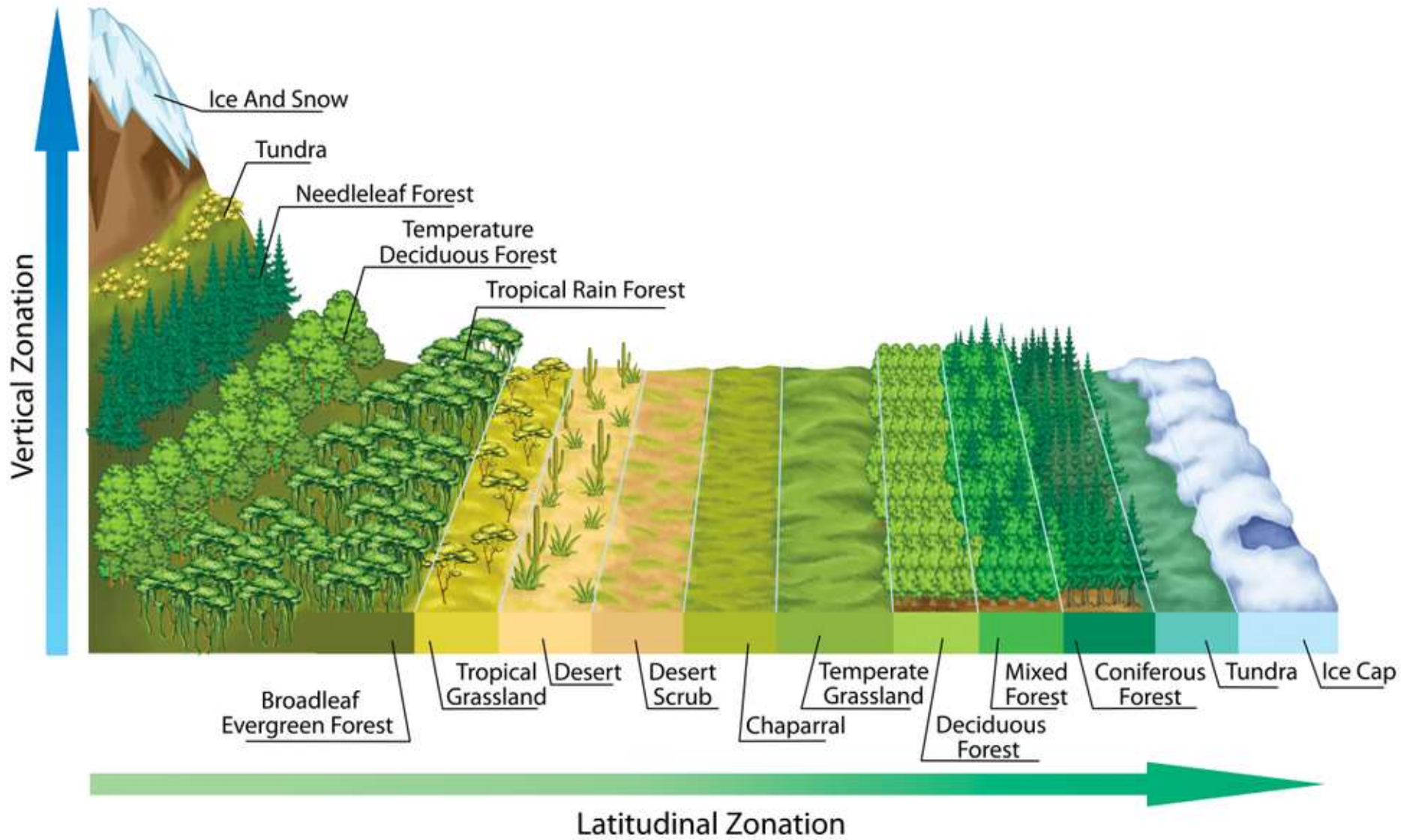
Passing from high peaks of mountains to the abyssal depth of sea (vertical axis), different types of habitats or ecosystem are present. Each exhibits different types of environmental conditions and different forms of life.

Three major realms of Bathymetric distribution

- Three major realms :
 - 1) Geobiotic
 - 2) Limnobiologic
 - 3) Halobiotic

GEOBIOTIC DISTRIBUTION:

- Altitudinal distribution of life on land from sea level to the summit the highest mountain.
- Progressive changes in temperature , light , rainfall and other climatic factors result in a series of life zones extending from the warm lowlands to alpine conditions of high mountains.
- The latitudinal life zones also show the similar general sequence.



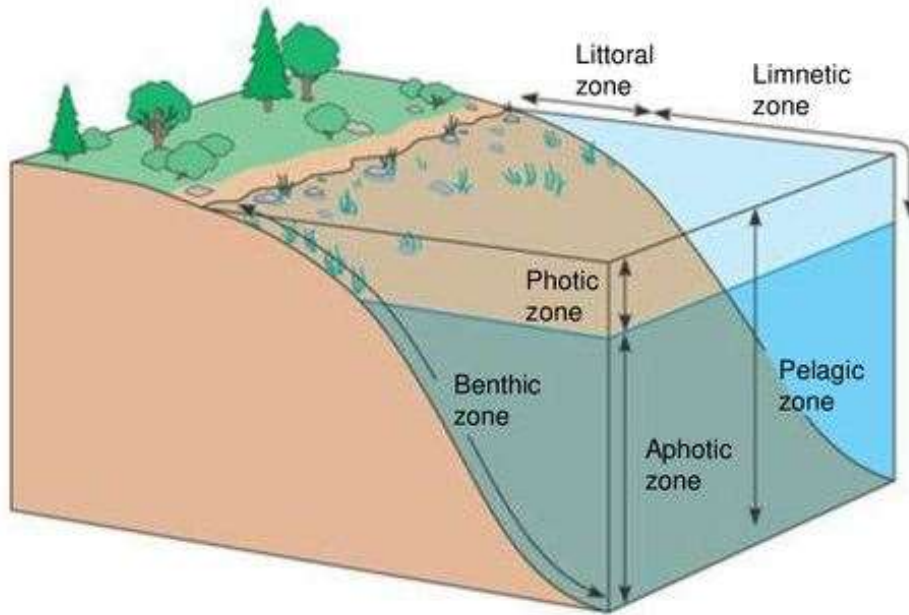
- Continental life zone formed by latitudinal arrangement of certain environmental factors are called **Biomes**.
- A Biome is an area possessing a particular set of climatic conditions (its own distinctive temperature and rainfall regime and its diurnal and seasonal changes) which results in a particular type of vegetation and animal life.
- Tundra , Alpine , Forest, Grassland, Savannah and Desert are examples of some important terrestrial Biomes.

LIMNOBIOTIC DISTRIBUTION:

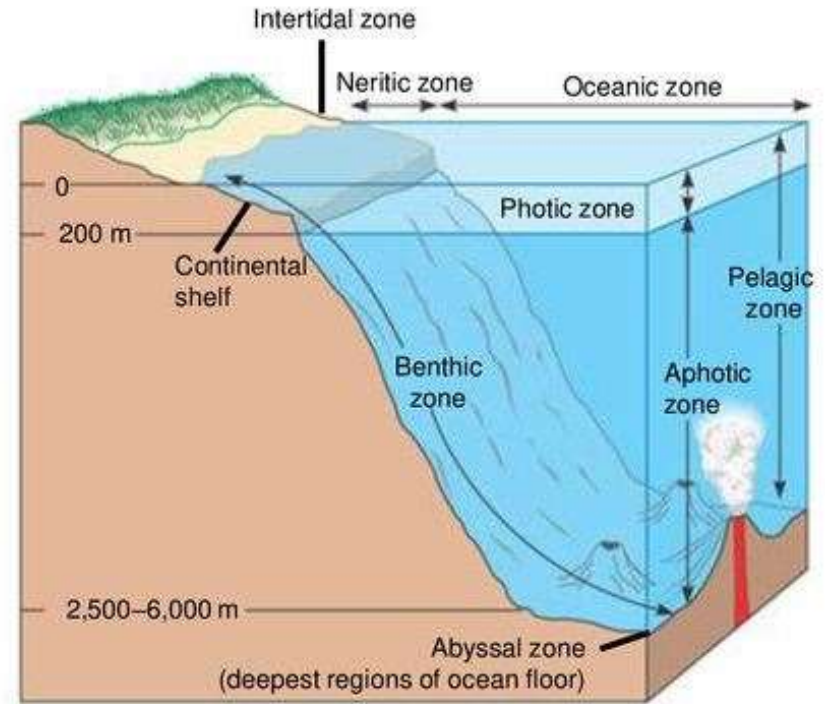
- Vertical distribution of organisms in fresh water habitat such as lakes, rivers, streams and ponds.

HALOBIOTIC DISTRIBUTION:

- Vertical distribution of organisms in marine habitat



(a) **Zonation in a lake.** The lake environment is generally classified on the basis of three physical criteria: light penetration (photic and aphotic zones), distance from shore and water depth (littoral and limnetic zones), and whether it is open water (pelagic zone) or bottom (benthic zone).



(b) **Marine zonation.** Like lakes, the marine environment is generally classified on the basis of light penetration (photic and aphotic zones), distance from shore and water depth (intertidal, neritic, and oceanic zones), and whether it is open water (pelagic zone) or bottom (benthic and abyssal zones).

GEOGRAPHIC DISTRIBUTION

- It deals with the horizontal distribution of animals and plants.
- **BIO-GEOGRAPHY** is study of biota .
- **PHYTO-GEOGRAPHY** is the study of distribution of plants.
- **ZOO-GEOGRAPHY** is study of distribution of animal life.

GEOLOGICAL DISTRIBUTION

A cheetah is the central focus of the image, shown from the chest up. Its head is turned slightly to the right, and its eyes are looking towards the camera. The cheetah's fur is covered in its characteristic dark spots. The background is a soft-focus savanna landscape with dry grass and some green foliage under a warm, golden light, suggesting a sunset or sunrise.

- Distribution of life in the past Geological periods and the present times.
- Geological distribution is very important for understanding the process of evolution.