CHAPTER-7
WEATHER, CLIMATE AND ADAPTATIONS
OF ANIMALS TO CLIMATE

NOTES

- **Weather:** a complex phenomenon that can vary or change from time to time. It is the state of the atmosphere at a particular place during a short period of time. It involves such atmospheric phenomena as temperature, humidity, rainfall (type of amount), air pressure, wind and cloud cover.

- **Elements of weather:** temperature, humidity, rainfall, wind speed etc.

- **Weather reports:** prepared by the Meteorological Department of the Government. The Department collects data on temperature, wind, humidity etc. and forecasts the weather. Short and medium range forecasts are more accurate.

- **Rain gauge:** instrument to measure rainfall which is basically a measuring cylinder with a funnel on top to collect rain water.

- **Maximum and Minimum thermometer:** special thermometers to record the temperature of a day. Maximum thermometer records the maximum temperature of a day. Minimum thermometer records the minimum temperature of a day.

- **Humidity:** It is a measure of moisture in the air.

- **Sun:** a huge sphere of hot gases at a very high temperature. All changes of weather are caused by the sun.

- **Climate:** the long term average condition of weather typically averaged over a long period of 25 to 30 years. The usual condition of the temperature, humidity, atmospheric pressure wind, rainfall and other meteorological elements in an area of the earth's surface for a long time.

- **Polar region:** countries or places those are located in both South Pole and North Pole of our earth that have extreme cold climate. Example Canada, Greenland, Iceland, Norway, Sweden, Finland, Alaska and Siberian regions of Russia.

- **Animals found in Polar Regions:** Polar bears, penguins, foxes, seals, whales, musk, fishes, oxen, reindeers and birds.

- **Tropical regions:** The tropical regions generally have a hot climate because of its location around the equator. Even in the coldest month the temperature is generally higher than about 15℃. During summer the temperature may cross 40℃. These regions get plenty of rainfall.

- **Tropical rain forest:** The important feature of the tropical regions is the tropical rain forests. The country which have hot climate due to its location around the equator but get enough rainfall to support the various life forms. 6% of the earth's surface which is covered by tropical rain forests. Examples India, Malaysia, Indonesia, Brazil, Republic of Congo, Kenya, Uganda and Nigeria.

- **Animals found in the tropical rain forests:** Monkeys, apes, gorillas, tigers, elephants, leopards, lizards, snakes, birds and insects.

- **Hot climate:** If we find that the temperature at a place is high most of the time, then it is said that the climate of that place is hot.

- **Wet climate:** If a region or a place receives rainfall for a major part of the year, then we can say that the climate is wet. Example: The North Eastern India.

- **Hot and dry climate**: If the temperature of a place is high during most part of year but the temperature is quite low in winter which last only for a few months then the climate of that place is said to be hot and dry. Example: The typical desert climate of Rajasthan and other western regions of India.

- **Hot and wet:** If there is heavy rainfall with high temperature on most of the days in the same place, then its climate is said to be hot and wet.

- **Adaptation:** The modifications of the features and the functions of the body according to the climatic condition are called adaptations.

- **Migration:** The seasonal journey taken by animals to escape extreme climatic conditions and in search of food is called migration. Migration is another means to escape the harsh, cold condition.