ECOLOGY LAB 4

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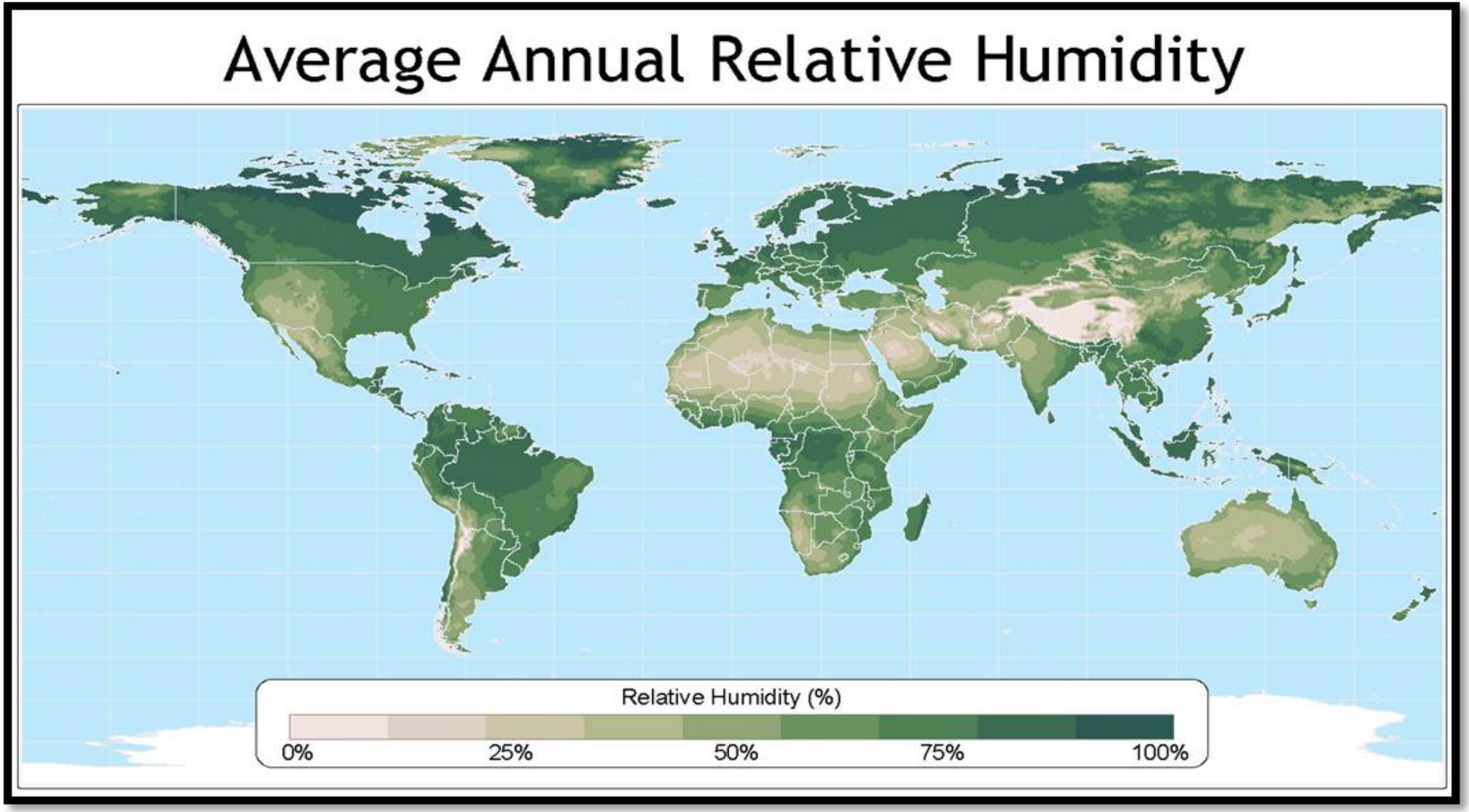
Humidity as an Ecological Factor

- **Humidity** is a term used to describe the amount of water vapor present in air. Water vapor, the gaseous state of water, is generally invisible to the human eye. Humidity indicates the likelihood for precipitation, dew, or fog to be present. Three primary measurements of humidity are widely employed: absolute, relative and specific.

Measurements of humidity

- **Absolute humidity** describes the water content of air and is expressed in either grams per cubic meter or grams per kilogram.
- **Relative humidity**, expressed as a percentage, indicates a present state of absolute humidity relative to a maximum humidity given the same temperature.
- **Specific humidity** is the ratio of water vapor mass to total moist air parcel mass.

Average Annual Relative Humidity

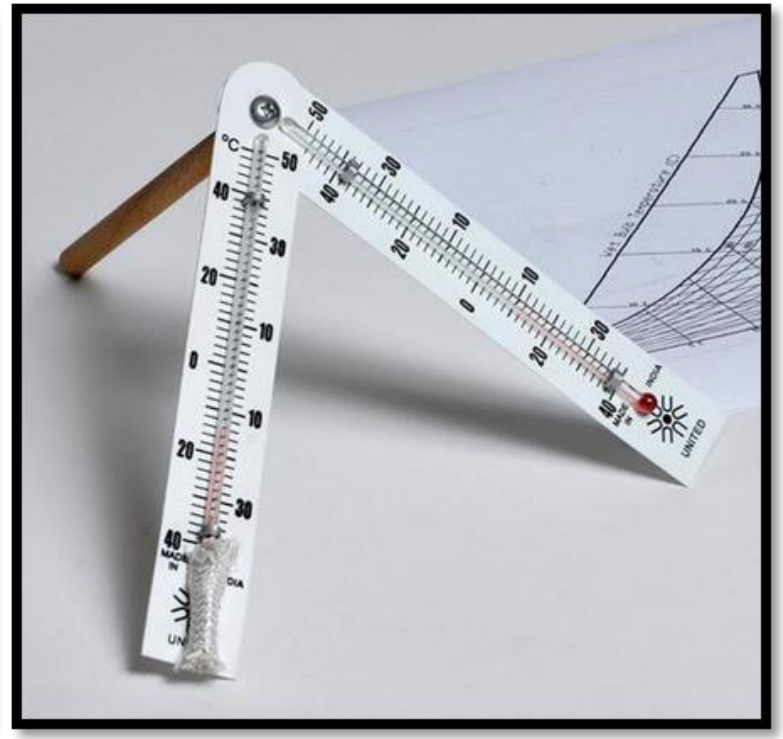


Effects of Humidity

- Humidity is one of the fundamental abiotic factors that defines any habitat, and is a determinant of which animals and plants can thrive in a given environment. The human body dissipates heat through perspiration and its evaporation. Processes as transpiration, absorption of water etc. are influenced by atmospheric humidity. Humidity, thus, plays an important part in the life of plants and animals.

Humidity measurement method & devices

1- Psychrometer: The device consists of two thermometers - wet and normal. Analyzing the difference between the readings of thermometers determine the dew point.



Humidity measurement method & devices

2. Dew-point hygrometer: Cooling small mirror placed in the sample gas stream. With photocell, fixing education mirror dew is governed by its temperature. Measuring the temperature, determine the dew point. .

Humidity measurement method & devices

3. Hygrometer infrared. By measuring, the absorption of infrared radiation is the absolute humidity.

Humidity measurement method & devices

4- Hair hygrometer. In such hygrometers will measure fat human hair extensions and defined humidity