

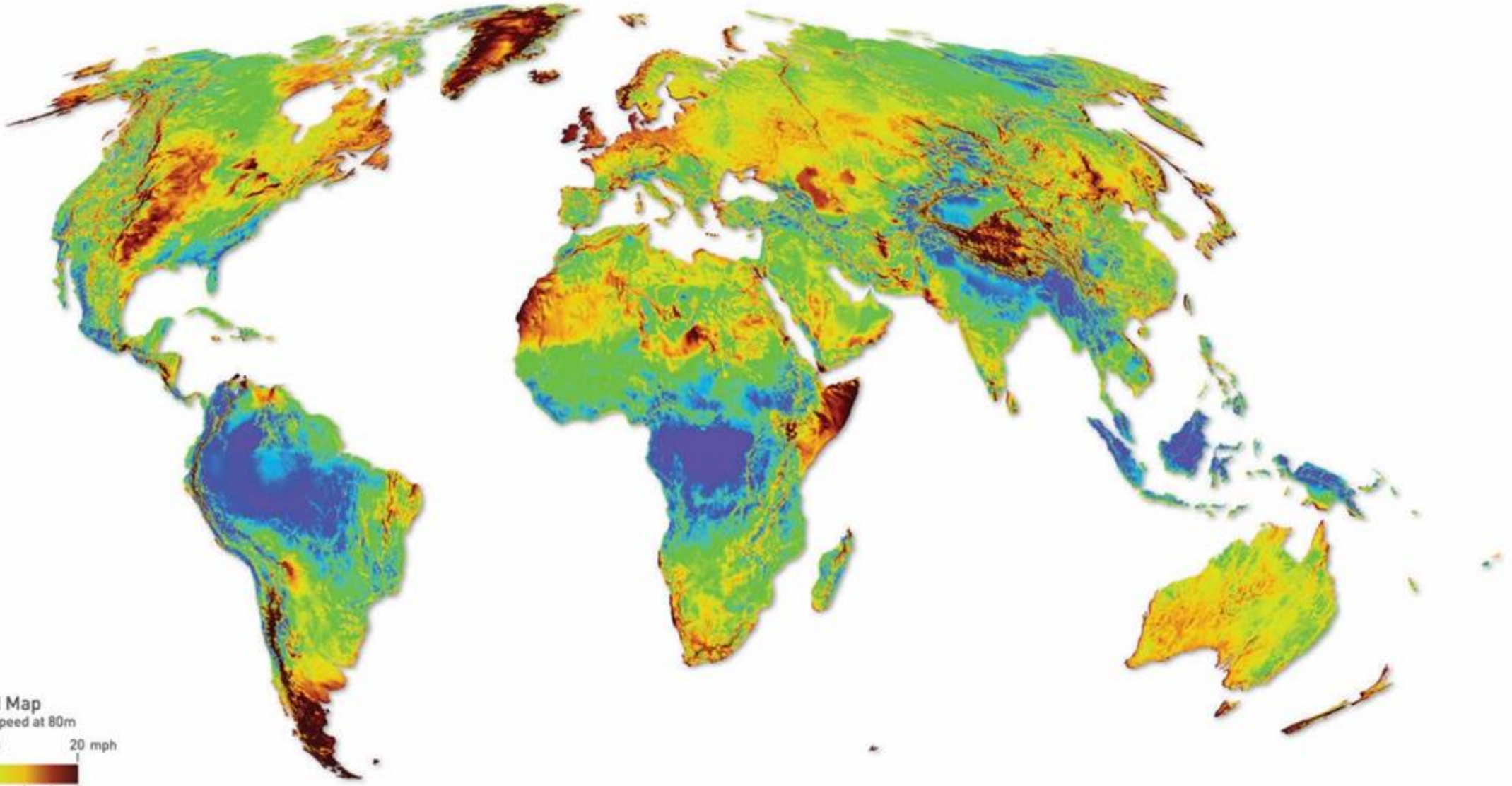
# ECOLOGY LAB 6

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Mohamed Sabbar

# Wind as an Ecological Factor

- **Wind** is the flow of gases on a large scale. On the surface of the Earth, wind consists of the bulk movement of air. In **meteorology**, winds are often referred to according to their **strength**, and the **direction** from which the wind is blowing. winds have various names associated with their average strength, such as **breeze**, **gale**, **storm**, and **hurricane**.
- Wind is caused by **differences** in the **atmospheric pressure**. When a difference in atmospheric pressure exists, air moves from the **higher** to the **lower** pressure area, resulting in winds of various speeds. **Wind direction** is usually expressed in terms of the direction from which it originates. **For example**, a northerly wind blows from the north to the south



5km Wind Map  
Mean Wind Speed at 80m

7	13	20 mph
3	6	9 m/s

# Role of wind in the natural world and environment

- 1- Erosion
- 2- Desert dust migration
- 3- Effect on plants
- 4- Effect on animals
- 5- Sound generation

# Wind speed measuring devices

- An anemometer is a device used for measuring wind speed. The term is derived from the Greek word **anemos**, which means wind, and is used to describe any wind speed instrument used in **meteorology**
1. **Vane style anemometer**
  2. **Helicoid propeller anemometer**
  3. **Hand held anemometer**
  4. **Digital anemometer**

# Wind speed measuring devices



Vane style of  
anemometer



Helicoid propeller  
anemometer  
incorporating a wind  
vane for orientation



Hand-held low-speed  
vane anemometer



Hand-held digital  
anemometer