

## Climate

Climate is combination of temperature, moisture, pressure systems, wind patterns, land-water relationship, elevation and transient storms. These ultimately are driven by the circulation of the atmosphere and ocean.

Koppen system devised with consideration of absolute rainfall, rainfall distribution, absolute temperature, temperature range and seasonal changes, and degree of evaporation. Generally letters go alphabetic from the equator to the poles. Know the major characteristics, and the nuances that make sub-groups within each group.

### Koppen Climate System

- A tropical: wet, monsoon, dry w/s
- B dry: desert/steppe, low/mid latitude
- C humid mid-latitude mild winter
  - Includes 'west coastal' climate
- D humid mid-latitude severe winter
- E polar tundra, ice cap
- H highland cooler, moister than local lowland area

### A Tropical climates

- NEVER COLD
- Rain forest—always wet
- Monsoon—extreme seasonal rainfall
- Savannah—very dry months

### B Dry climates

- EVAPORATION POTENTIAL EXCEEDS PRECIPITATION
- Desert has more evaporation compared to rainfall than steppe
- Low latitude deserts always warm
- Mid latitude deserts can be quite cold

### C Mild mid-latitude climate

- MILD WINTER
- Humid
- Hot/warm summer
- Marine west coastal climate is a unique subdivision, that extends far poleward of other mild climates

### D Severe mid latitude

- SEVERE WINTERS
- Humid continental cold winter
- Subarctic not warm in summer

### E Polar climate

- TOO COLD FOR TREES
- Tundra some month is above freezing
- Ice cap no months are above freezing