

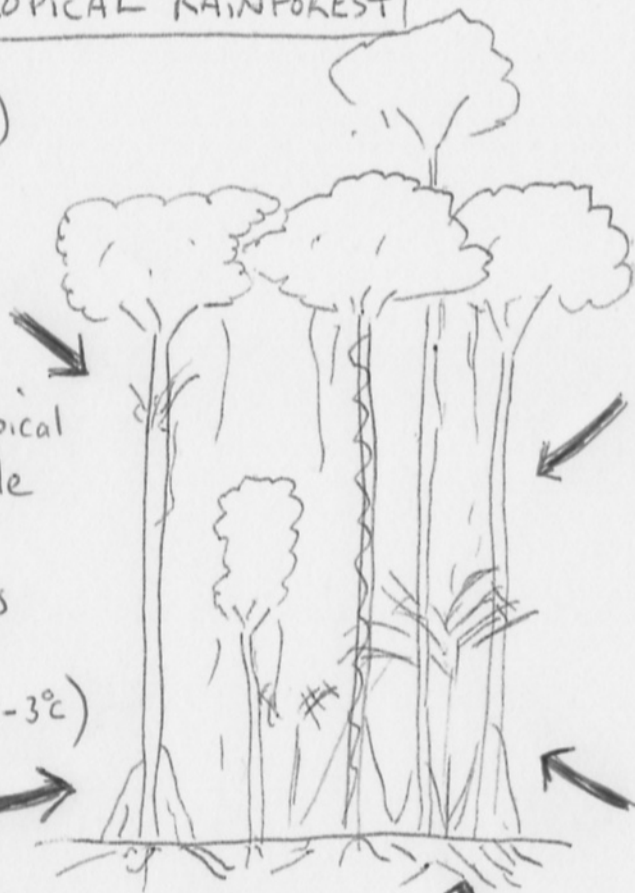
## TROPICAL RAINFOREST

### CLIMATE

- Equatorial climate (hot + wet)
- High rainfall > 2000mm pa
- No dry season, every month > 100 mm
- Daily convectional rainfall
- Located on the ITCZ. (Inter-Tropical Convergence Zone) Converging Trade Winds bring uplift and rain.
- Equatorial location, high temps all year, > 26°C each month.
- Low annual temperature range (1-3°C)

### STRATUM SPECIFICITY

- Each layer in the ecosystem has a specific role.
- Emergents
- Canopy - engine room of rainforest, most biomass, most photosynthesis
- Understorey
- Field layer (shrub) and litter (see decomposition)



### DECOMPOSITION

- Very rapid decomposition and recycling of organic matter in the litter layer
- Allows rapid uptake of nutrients by shallow roots of trees
- Bacteria and fungi efficient
- Mycorrhizal relationship between fungi and roots gives rapid uptake to plants

## FACTFILE

### PRODUCTIVITY

- High 2000 g/m<sup>2</sup>/yr due to climate and large leaf area causing high levels of photosynthesis
- High Biomass, (living matter) a measure of stored carbon
- Growing season - all year

### PLANT ADAPTATIONS

- Large leaves for photosynthesis
- Drip tips on leaves to shed water and prevent damage
- Waxy outer coating of leaves to prevent damage
- Tall trees to reach canopy
- Buttress roots at base of trees to keep trees erect
- Smooth thin bark to allow water stem flow
- Epiphytes, plants growing on trees
- parasitic plants, feeding on others
- Lianas growing on trees but rooted in soil