



DIPTEROCARPACEAE

N JEYKUMARAN
IFS 2019



Family

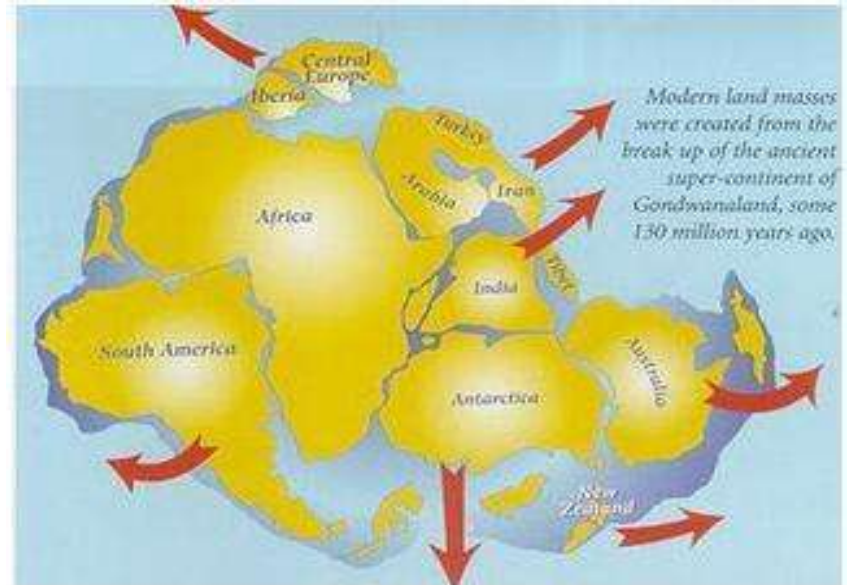
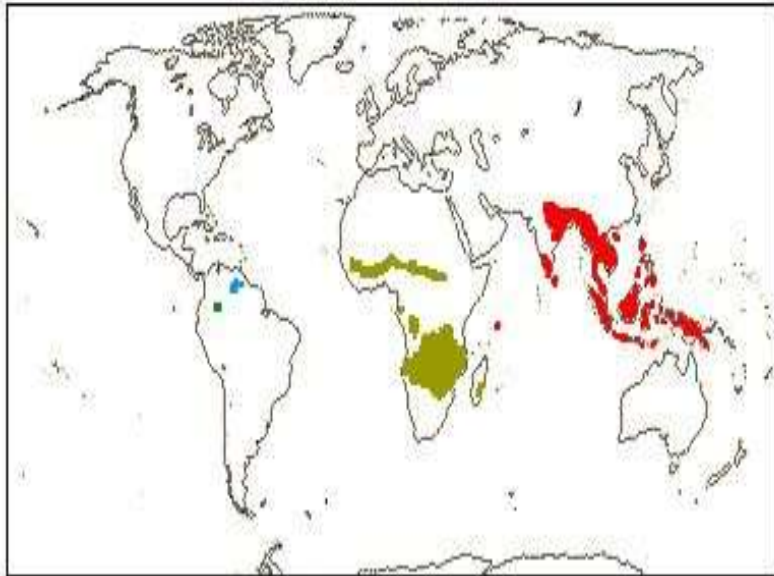


Taxonomic hierarchy

- Kingdom – Plantae
- Division – Phanerogams
- Class – Dicotyledonae
- Sub Class– Polypetalae
- Order – Malvales
- Family - Dipterocarpaceae

Distribution

(17 genera 690 species)



Marked Species



Shorea robusta



Hopea parviflora



Dipterocarpus indicus

Habit

- Intermediate shrubs to Emergent canopy trees
- Height 40-80 m
- Dipterocarp Forests
- Tallest Angiosperm 300 ft (approx)

89.5



Shorea faguetiana



Big Ben



Ecology

- Mesophytes
- Climax species
- Colonise secondary forests



Vegetative traits

- **Tap Root**
 - Deep
 - Branched
- **Stem**
 - Erect High
 - Woody
 - Buttress
 - Resin canal

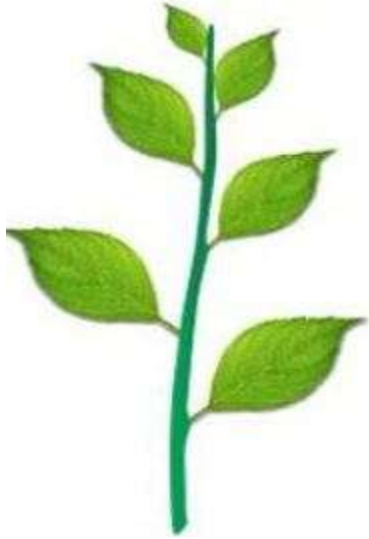




Leaf



Stipule
(Inter-petiolate)



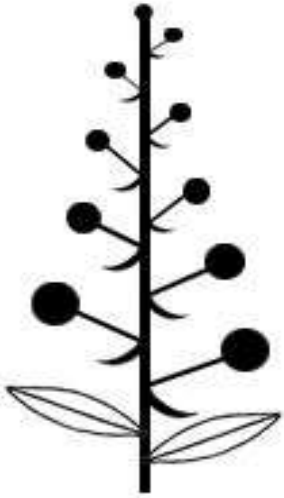
Alternate
&
Simple



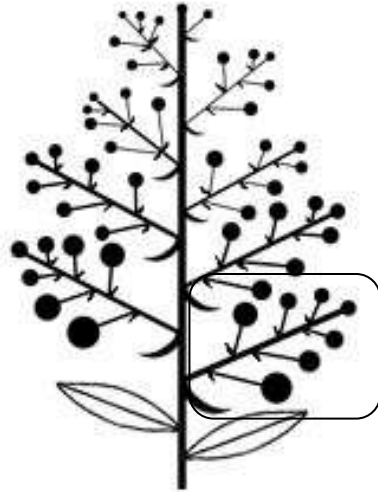
Coriaceous
(Leathery) & Entire
(Smooth margin)



Inflorescence



Raceme



Panicle-Compound raceme
(Usually)



Hopaea odorata



Flowers

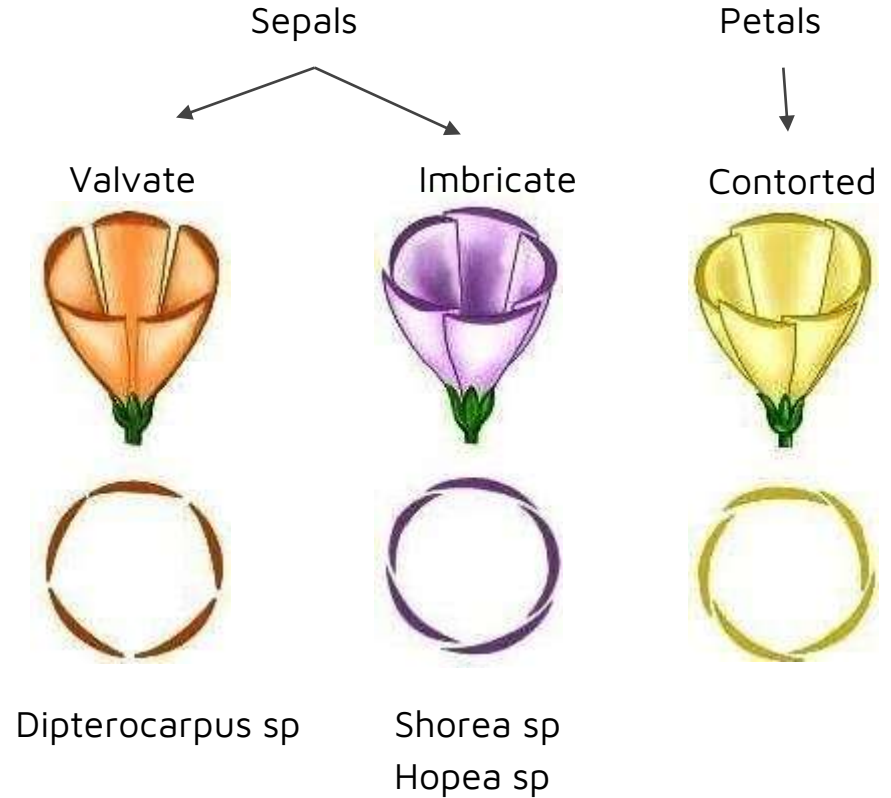
- Actinomorphic
- Complete
- Bisexual
- Bracteate
- Pentamerous
(5 Sepal
5 Petal)



Hopea ponga

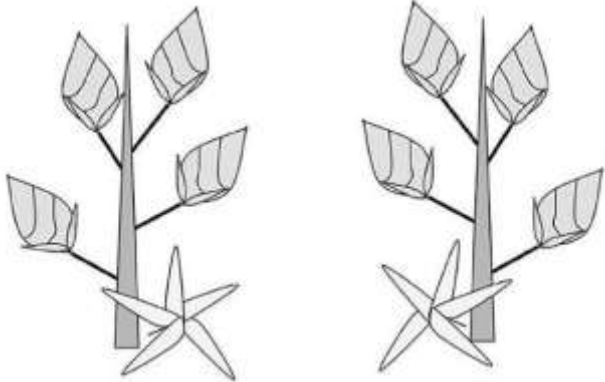
Calyx & Corolla

- Sepals/Petals 5 (Pentamerous)
- Poly/Gamo
 - sepalous/petalous
- Imbricate or Valvate Sepals
- Contorted petals

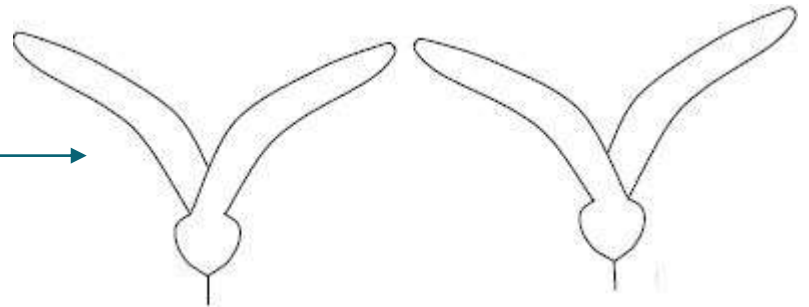


Accrescent Calyx

- Persistent
- Grows with fruit
- 2 wing
- Right Left Asymmetry

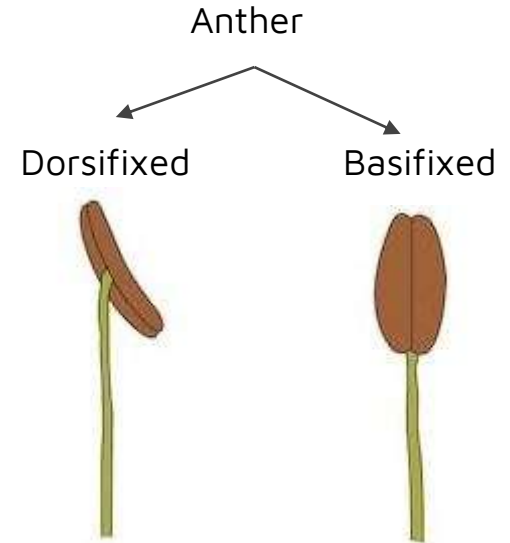


$$V < \sqrt{[2gH - (L^2)\Omega^2]}$$



Androecium

- Stamens 5-indefinite(>12)
- Exclusively fertile stamens
- Filaments short
- Anther
 - lobes unequal
 - Basifixed or Dorsifixed



Vateria indica

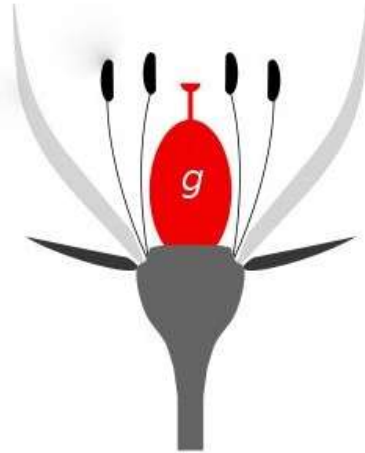




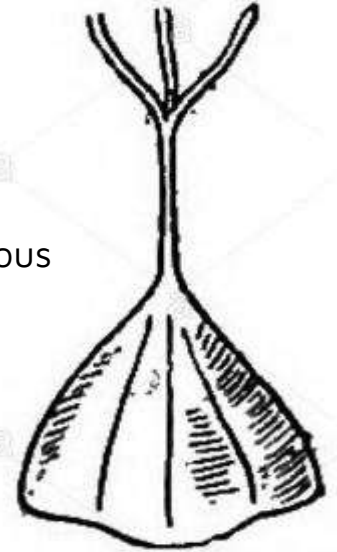
Gynoecium

- Usually 3 carpels
- Stigma > Stamens
- Ovules 2 in each locule

Superior



Syncarpous



Axile





Fruit and Seed

- Fruits

- Winged
- Indehiscent-Predation



- Seeds

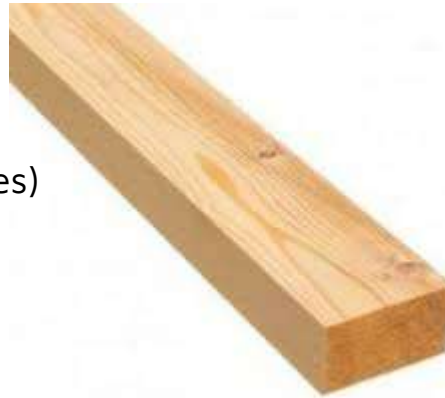
- Non endospermous





Economics

- Timber
 - Shorea robusta(ships)
 - Hopea parviflora(bridges)
- Dammar resin
 - Vateria indica
- Food
 - Sal butter



Sal butter



Dammar resin



Botany is
The art of
Insulting flowers
In Greek and Latin

Alphonse Karr
French novelist



Thank
You!

Acknowledgement

*Manoj Chandran IFS
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