

Name : Members of your team : 

# Mangrove Flora

## Information Sheet

### Around the Mangrove Boardwalk

#### Swamp fern

A fern associated with mangroves, the swamp fern is frequently seen growing on mud lobster mounds. The leaves are brownish when young. In fertile fronds, the lower surface of the leaves is completely covered with dark brown spores.

#### *Rhizophora sp.*

*Rhizophora sp.* has roots, which branch from the stem to form still-like structures to help prop up the tree in the soft substrate. The seedlings are shaped like little javelins, enabling them to stick to the substrate and take roots soon after dropping. They are also capable of withstanding long periods in saltwater, germinating at suitable sites away from the parent plant.

#### *Bruguiera cylindrica*

*Bruguiera cylindrica* has knee-like roots and can grow up to 25m tall. The bark has pores (lenticels) that allow for gas exchange, an adaptive feature to the low oxygen content in the mud. A special condition exists in many mangrove trees called vivipary, in which the seeds germinate while still on the parent plant.

#### Sea Hibiscus

Commonly found along sandy shores, this tree has maroon-centred yellow flowers. The leaves are considered 'cooling' and are used in controlling fevers.

#### Sea Poison

A big, spreading tree with large, shiny and dark egg-shaped leaves. The seeds and other parts of tree contain a poison and are used as fish poison.

#### *Ceriops tagal*

Another rare mangrove tree *Ceriops tagal* can be identified by its flattened stipule, inverted egg-shaped leaf and sharply angular seedling. It has kneed roots like *Bruguiera*. It is used for firewood and tannin is extracted from its bark for tanning.

#### Nipah

The fronds of this plant may grow to 9m in length. The large brown fruits are dispersed through water. The young seeds are soaked in sugar and eaten as a snack (attap-chee) and is also used in the local dessert ice kachang.

#### *Avicennia sp.*

*Avicennia sp.* has pencil-like breathing roots (also called pneumatophores) that protrude from the mud surface to help the tree breathe. The roots branched upwards from the main horizontal roots that grow below the soil.

These roots allow absorption of atmospheric oxygen

through specialized root cells known as lenticels. This adaptation is important, as the mud that the mangrove trees grow in is extremely low in oxygen, a condition called anaerobic.

#### Blind-your-eyes

*Exoecaria agallocha*, also called 'Blind-Your-Eyes' has white milky sap that will ooze out from broken parts of the tree. This sap can cause temporary blindness and skin irritation. It is also used as fish poison.

#### Sea Holly

A stiff, semi-woody plant that can grow up to 1.5 meters tall. Some of the leaves bear spines like those of the European holly. The leaves excrete salt, which can be seen as white crystals on the upper side of the leaves.

#### Sea Derris

A climber with pinnate leaves, the Sea Derris can choke trees in its quest to the canopy for sunlight. Look out for trees that have choke marks on them. They are likely to be made by this plant. It bears small pink flowers. The pod is flat and contains one seed. The roots contain a poison called saponin that is used to catch fish.



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