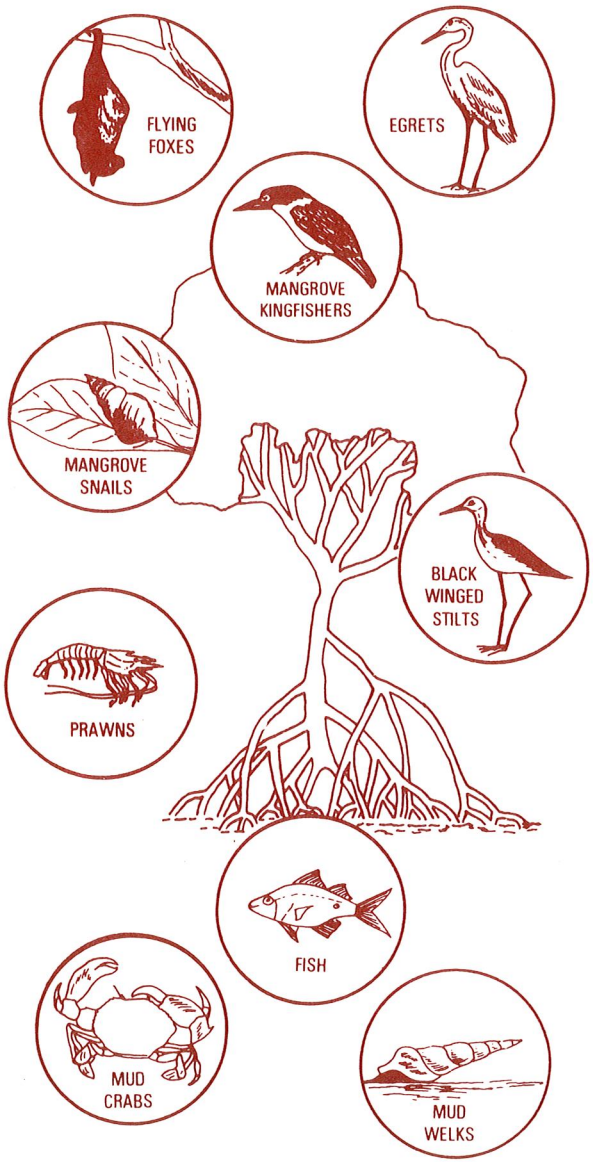
Mangroves support a wide variety of animals. Therefore, to ensure survival of these creatures their habitat (mangroves) must be protected.



FACTORS AFFECTING MANGROVE GROWTH

Several basic requirements need to be met before mangrove communities can successfully establish themselves. These include protected shores, tidal inundation, and a saline environment.
Zonation (banding of the vegetation) which is characteristic of some of these communities, is also influenced by other factors such as soil type, soil salinity, drainage and tidal frequency and duration. These zones are usually clearly visible by the contrasting leaf coloration of the dominant species in the region.

CAUSES OF DAMAGE

Industrial and urban development, road construction, tourism and various forms of recreation all contribute to disturbance and in some cases, the total destruction of these mangrove communities. The effects may be direct (eg. clearing and landfill) or indirect (eg. dust, oil pollution, movement of sediment and alteration of tidal flow). The impact of such disturbances can be minimised or eliminated by sensible engineering and good planning. Improved road design (adequate culverting), incorporating methods of dust suppression, workable and effective oil spill contingency plans, restriction of developments in and around mangroves, and the establishment of reserves for these communities, will ensure the survival of our precious mangrove communities.

For further information contact:

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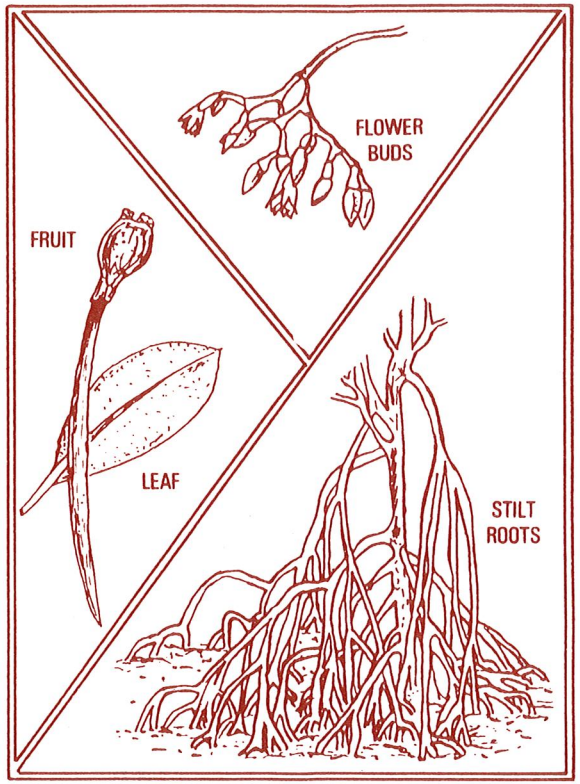
MANGROVES

A special part of the Pilbara coastline

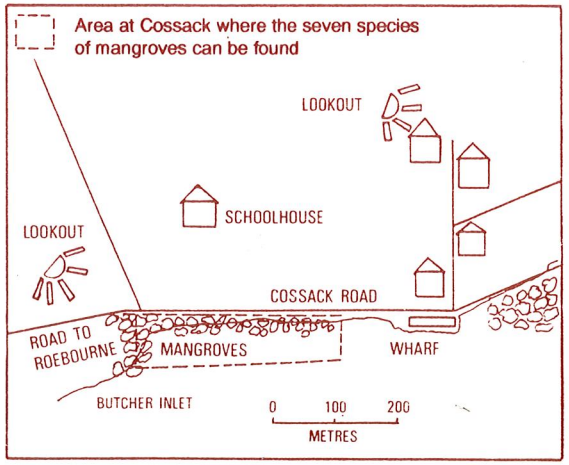


One of the more common mangroves found in the region - Rhizophora Stylosa

Mangroves are the characteristic littoral (between high and low tide) plant formations which inhabit sheltered tropical and sub-tropical coastlines. These plants have special features allowing them to survive in saline environments. Some of these features include salt excretory glands, salt exclusion mechanisms (salt filters), and pneumatophores (special air breathing roots).

Mangroves are very beneficial to a wide variety of fish, birds and other animals, including man. They act as a nursery, feeding and breeding grounds, and as buffer zones against wave action, thereby reducing erosion and storm surge damage to coastal areas.

There are seven species of mangroves found in the Pilbara region of Western Australia. All seven species can be found growing together along the shores of Butcher Inlet, near the historic town of Cossack. One of these species, Osbornia Octodonta (the myrtle mangrove), is at its southern limit at this location.



KEY TO THE PILBARA SPECIES

START

LEAF STALK SHEATHS THE STEM — PRESENT → **Aegialitis annulata - Club Mangrove**
* bushy shrub (1.5m), club-shaped stem
* ring-shaped leaf scars on stem
* alternate, leathery leaves, distinct veins
* bark dark grey in colour

ABSENT

AERIAL STILT OR PROP ROOTS — PRESENT → **Rhizophora stylosa - Stilt Mangrove**
* shrub or tall tree
* fruit green/brown to 50cm
* branches produce slender aerial roots
* leaves clustered towards end of stems

ABSENT

LEAVES OPPOSITE AND TINGED RED — PRESENT → **Osbornia octodonta - Myrtle Mangrove**
* dense shrub to 3 metres
* bark dark brown, stringy on mature stem
* leaves have translucent oil glands and have a eucalyptus smell when crushed

ABSENT

ALTERNATE GLOSSY LEAVES, BARK REDDISH BROWN — PRESENT → **Aegiceras corniculatum - River Mangrove**
* bushy shrub or tree
* smooth stem, bark brown with reddish tinge
* small curved fruits 4-6cm
* horizontally spreading root system

ABSENT

SLENDER PNEUMATOPHORES FROM LATERAL ROOTS — PRESENT → **Avicennia marina - White Mangrove**
* medium size tree, spreading leafy crown
* leaves opposite, white/grey underside
* smooth white bark on trunk
* orange/yellow flowers to 6mm diameter

ABSENT

TRUNK BUTRESSED OR FLANGED — PRESENT → **Ceriops tagal - Yellow-leaved Mangrove**
* leaf scars lack leaf traces
* leaves green to yellowish green
* smooth grey/white to orange/brown bark
* fruit green/brown, white-stalked flowers

PRESENT

LEAF SCAR — LEAF TRACES — STEM — PRESENT → **Bruguiera exaristata - Rib-fruited Mangrove**
* leaf scars with three leaf traces
* opposite, glossy green leaves
* knee-root pneumatophores
* bark rough, dark grey/brown in colour