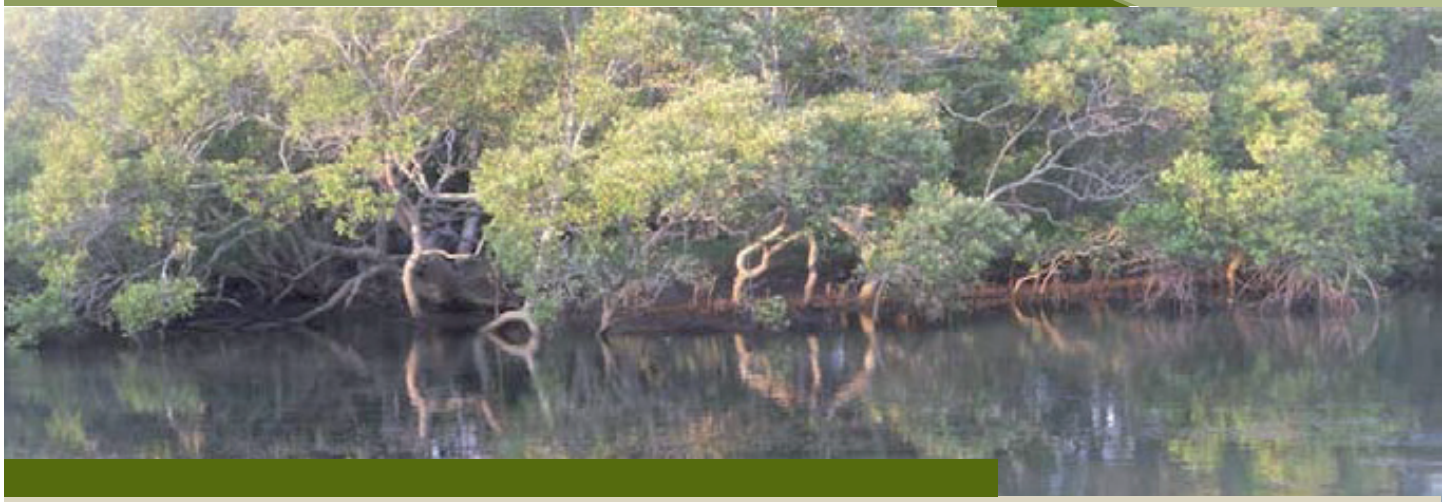
Mangroves

The term mangrove applies to both an individual mangrove plant and to the habitat in which it lives.



Mangrove habitat occurs on sheltered coastal rivers, estuaries and bays in the intertidal zone (between the average sea level and the high tide mark). Mangrove plants are unique in their ability to tolerate inundation by water with a wide range of salinities from fresh to seawater and anaerobic soils (low in oxygen).

Value of Mangroves:

Mangroves play an important role in our economic and social wellbeing and should be protected.
Mangroves:

- Support commercial and recreational fisheries.
- Provide habitat and food for fish and other animals.
- Trap, concentrate and recycle nutrients.
- Reduce water pollution and improve visual amenity.
- Prevent bank erosion.
- Support recreational, scientific and educational activities.

Threats to Mangroves:

Human activities have contributed to the degradation and loss of mangrove habitat. These impacts include:

- Removing mangroves to enhance views.
- Dumping of garden refuse and rubbish.
- Draining and filling for housing, industry and agriculture.
- Siltation and pollution of estuarine water.

Adaptations of Mangroves:

Mangroves are the only plants to survive successfully in the intertidal zone where the water and soil are very salty, there is little oxygen and conditions are difficult for the early development of seeds.

Salinity:

Mangroves have many ways of dealing with high salt levels in the environment. Most can tolerate high salt levels in their sap. Others excrete salt from pores in their leaves or accumulate salt in older leaves which fall from the tree.

Aeration and Support:

Many mangroves have aerial or prop roots and buttressed trunks for support in the shallow and unstable soil. The root system is shallow and extensive. Some plants have pneumatophores which are roots extending out of the soil which obtain oxygen from the air.

Propagation:

The seedlings of the mangrove germinate from the fruit while still attached to the tree. This is called vivipary and gives seedlings a better chance of survival when they leave the parent plant.

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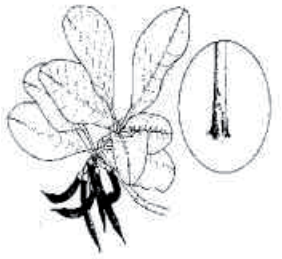
Mangroves continued . . .

Mangrove Identification in the Tweed:

There are 7 species of mangroves in the Tweed Estuary. The most common species are:

	Grey Mangrove (*Avicennia marina*) • Oval, glossy green leaves which are pale grey on the underside. • Green egg-shaped fruit with two seed leaves • Peg roots called pneumatophores • (pronounced nu-mat-o-fors)
	River Mangrove (*Aegiceras corniculatum*) • Oval leaves • Curved seeds with a pointed tip. • Small white flowers that smell like rotting bananas.
	Large-Leafed Orange Mangrove (*Bruguiera gymnorrhiza*) • Large leaves which occur as clumps • Green cigar-shaped fruit • Red flowers • Buttresses and knee roots
	Stilt Mangrove (*Rhizophora stylosa*) • Leaves have light green undersurface covered in brown speckles • Small white flowers • Fruit is long and pointed at one end • Stilt root

Other species found are milky mangrove (*Exoecaria agallocha*), the mangrove fern (*Acrostichum speciosum*) and the yellow mangrove (*Ceriops tagal*).

Mangrove Boardwalks:

You can access Tweed's mangrove forests without getting muddy. Visit a mangrove boardwalk.
These are located at:

- Minjungbal Historic site, Tweed Heads South.
- Keith Curran Park, The Anchorage.
- Philp Parade Walkway, Tweed Heads South.

Mangroves are protected under the Fisheries and Oyster Farms Act 1935. A permit is required from NSW Fisheries before removal of any part of a mangrove plant. NSW Fisheries actively encourages the planting of mangroves.

References and Further Information:

- C. Lovelock, 1993. Field Guide to the Mangroves of Queensland, AIMS.
- QLD DPI, 1989. Our Mangroves, Fisheries Branch, QLD DPI.
- SPCC, undated. A Guide to Mangrove Transplanting, NSW Fisheries.
- R.J. West, 1989. Mangroves Agfact F2.0.1, NSW Fisheries.
- Fisheries Research Institute, PO Box 21 Cronulla 2230 phone (02) 9527 8411.
- Industry and Investment NSW Fisheries, Bruxner Highway, Wollongbar 2477 ph: (02) 6626 1200.
- Tweed Council Natural Resources Management Unit (NRM) phone (02) 6670 2400.

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