



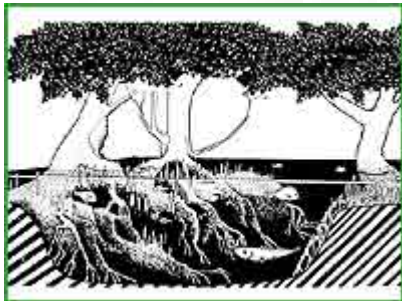
SALTWATER & SURVIVAL

Mangroves are trees which are suited to a life in saltwater by being able to get rid of the salt and obtain oxygen for their roots. Salt secreting mangroves such as the Grey and River Mangroves are able to concentrate and exude the salt through special glands on their leaves. The salt crystals which you can see on their leaves are washed off during rain. The Grey Mangrove has developed specialised air breathing roots (pneumatophores) which grow out of the water-logged soil into the air. During low tide they let enough air in to last the next tidal cycle. The River Mangrove has a very shallow root system that plays a similar role.



TREES BEARING LIVE YOUNG

After flowering, the two mangrove species in Jervis Bay produce seed that grow on the parent tree for 10-12 months. Unlike most land plants the offspring are developed and ready to grow when they fall from the tree. After floating about in the saltwater for a few days the seedlings strand and eventually stand themselves up. Many thousands of seedlings establish themselves each year but most die after a few years under the canopy of their parents. If an old tree dies there are plenty of seedlings to take its place.



COMMERCIAL IMPORTANCE

Mangrove habitats act as an important nursery for many economically important fish species caught by both the recreational angler and commercial fishermen. Species include bream, blackfish, mullet, flathead, whiting and red bream. It has been estimated that over 70% by value of the commercial fish catch in New South Wales is made up of estuarine-dependent fish.



FEEDING GROUNDS

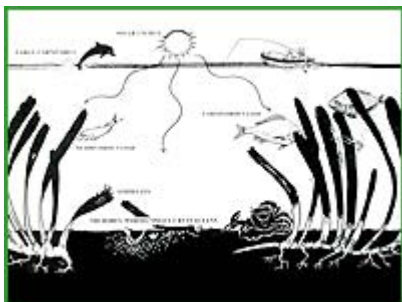
Over 150 species of birds have been identified in or around the wetlands of Jervis Bay, some of these are migratory waders, such as godwits and sandpipers which fly from Japan and Siberia to the wetlands of south-eastern Australia each year.

The most common permanent species include White Ibis, White Egret, Nankeen Night Heron, Grey Teal, Little Pied Cormorant, Black Cormorant, White Breasted Sea Eagle and White Face Heron.



LIFE IN THE MUD

The muddy surface beneath you abounds with life of all shapes and sizes. The smallest are the bacteria that form pink and white patches on the mud. Slightly larger are the microscopic plants called micro-algae that often form a green mat on the surface. The larger visible brown algae are the seaweed Neptune's Necklace (Hormosira). One of the larger animals is the Fiddler Crab (Grapsid) that lives in a network of burrows. If the tide is out and you stand still you will see them sifting the mud for food. Whelks also search the mud for microbes and detritus. These muddy ecosystems are home to seven species of crabs and twenty species of fish.



SEAGRASSES

Seagrasses are marine flowering plants. Three different types are found in the waters of Jervis Bay. The broad leaved strapweed (Posidonia) forms extensive beds in the bay. The oval leaved paddleweed (Halophila) is also common, but less conspicuous. The third is the narrow leaved-eelgrass (Zostera) found mainly in the creeks. Seagrasses play a vital role in the marine environment by providing shelter and feeding areas for a variety of marine life such as crabs, prawns and shellfish.



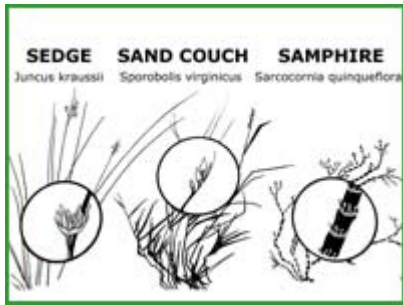
ABORIGINAL HISTORY

For thousands of years Aboriginal groups occupied the Jervis Bay area, harvesting many marine animals as the major part of their food supply. Middens along the shores of Currumbene Creek indicate that they collected oysters, whelks, bream, flathead etc from the estuary. The fish were speared with multi - pronged spears in the shallows or from bark canoes, sometimes at night with the aid of bark torches.



THE RIVER MANGROVE

The River Mangrove (*Aegiceras corniculatum*), found throughout Australian and Asian mangrove ecosystems, is generally a small shrub, often with several small trunks, and no peg roots. The leaves are glossy green above and paler underneath and occur alternately along the stem. The flowers are white and clustered together. The fruit is small, curved and viviparous (germinates on the tree), and normally falls in winter. The River Mangrove usually occurs behind the Grey Mangroves near the salt marsh areas.



SALTMARSH

Salt marshes occur between the mangroves and the high tide level. The salt marsh plants are covered by high tides once or twice a month and become covered in salt crystals as they dry. They are an important buffer between the land and the estuary, providing habitats for marine snails, crabs and birds. Jervis Bay salt marshes provide summer feeding grounds for migratory birds such as the curlews, godwits and sandpipers.

