Grey Mangrove (Avicennia marina subsp. australasica)

Robyn Howard What a wonderful and interesting tree! It is the only mangrove which ranges from South Australia, Victoria and Tasmania to Cape York (Qld), and it also grows through coastal S. E. Asia. It occurs in the farthest tidal zones up creeks and rivers, in bays, even on the landward side of mangrove forests. It has the ability to cope with more fresh water than most mangrove species.

All mangroves in Australia are fully protected, even when dead. In the past and in some areas outside Australia, the timber of the Grey Mangrove has been valued but no matter how highly prized the timber may be, it cannot equal the value of the living species in pioneering new banks, stopping erosion, filtering urban run-off and creating habitat.

The speciality of mangroves is in having the capability to thrive in compacted mud in salty tidal situations. *Avicennia marina* deals with the salt problem by partial exclusion when taking up moisture, and by exuding salt through the backs of its leaves. Crab burrows amongst the mangroves help aerate the soil and take some oxygen to the root systems, but the main adaptation for dealing with the finely packed silty mud is the pneumatophore. Pneumatophores protrude upwards from the mud and are able to obtain oxygen directly from air. In turn, algae attach to these "peg-roots" providing food as well as a protective habitat for the crabs (and small fish during inundation).

Flowers appear on the tree from February to June, with fruit developing until December, allowing time to form leaves and be ready to grow immediately it drops. This special ability is known as vivipary, and a successful seedling will take root within 2 days, another special method to assist mangroves in dealing with their harsh conditions.

Grey Mangroves may attain a height of 25 metres, and are quite a handsome tree. They are long-lived in suitable conditions and some old specimens develop "aerial" roots from trunks and branches. **Photos – Flowers, fruit, seedlings, tree, old tree, pneumatophores**.

