

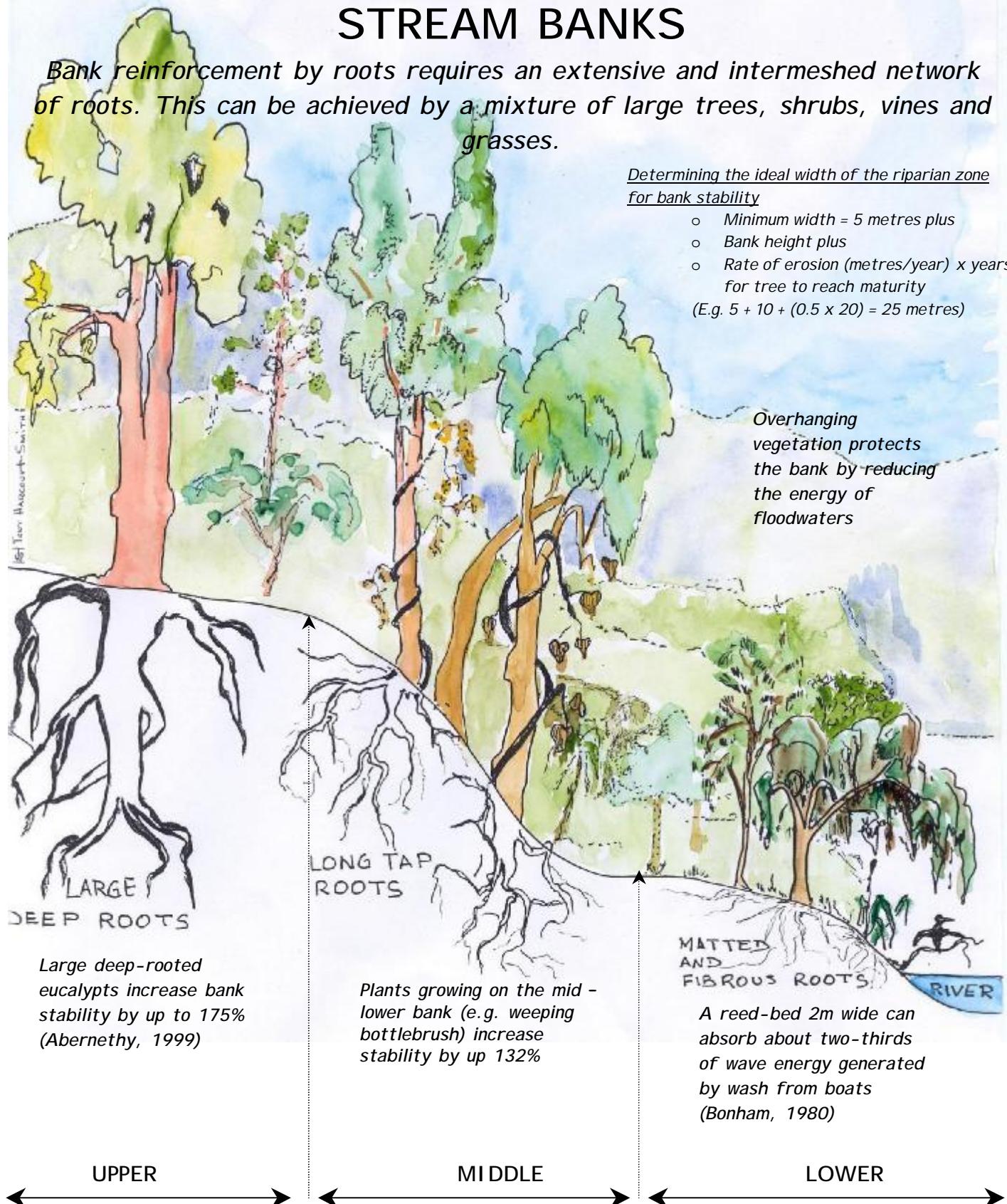
STABILITY & LOCATION OF SPECIES ON STREAM BANKS

Bank reinforcement by roots requires an extensive and intermeshed network of roots. This can be achieved by a mixture of large trees, shrubs, vines and grasses.

Determining the ideal width of the riparian zone for bank stability

- Minimum width = 5 metres plus
- Bank height plus
- Rate of erosion (metres/year) x years for tree to reach maturity
(E.g. $5 + 10 + (0.5 \times 20) = 25$ metres)

Overhanging vegetation protects the bank by reducing the energy of floodwaters



Riverbank Vegetation has a major impact on bank stability, channel shape and health of the waterway. Vegetation reduces flow velocity, improves bank stability by binding bank material, filters nutrients, traps sediments, moderates water temperature fluctuations and light conditions, improves habitats for all in-stream inhabitants and enhances social amenity.

This is a small selection of native scrub plants which occur along the freshwater lower reaches of the Mary River

Top bank	Middle bank	Lower bank
<i>Araucaria cunninghamii</i> - hoop pine	<i>Acacia aulacocarpa</i> - brown salwood, <i>Alphitonia excelsa</i> - soap tree	<i>Callistemon viminalis</i> - weeping bottlebrush
<i>Argyrodendron trifoliolatum</i> - brown tulip oak	<i>Alyxia ruscifolia</i> - chain fruit	<i>Casuarina cunninghamii</i> - river sheoak
<i>Cassia brewsteri</i> - Leichhardt bean, laburnum	<i>Aphananthe philippinensis</i> - rough-leaved elm	<i>Ficus coronata</i> - sandpaper fig
<i>Cupaniopsis parvifolia</i> - green leaved tamarind	<i>Arytera species</i> - native tamarinds	<i>Lomandra hystrix</i> - matrush
<i>Euroschinus falcata</i> - pink poplar	<i>Canthium odoratum</i> - shiny-leaved canthium	<i>Lomandra longifolia</i> - matrush
<i>Eucalyptus tereticornis</i> - blue gum	<i>Castanospermum australe</i> - blackbean	<i>Melaleuca linariifolia</i> - snow in summer
<i>Ficus macrophylla</i> - Moreton Bay fig	<i>Commersonia bartramia</i> - brown kurrajong	<i>Syzygium australe</i> - scrub cherry
<i>Flindersia australis</i> - crow's ash	<i>Cordyline species</i> - palm lilies	<i>Waterhousia floribunda</i> - weeping lily pilly
<i>Grevillea robusta</i> - silky oak	<i>Cryptocarya species</i> - native laurels	
<i>Lophostemon suaveolens</i> - swamp mahogany	<i>Diospyros species</i> - native ebonies	
<i>Mallotus philippensis</i> - red kamala	<i>Dysoxylum gaudichaudianum</i> - ivory mahogany	
<i>Melia azederach</i> - white cedar	<i>Elaeocarpus obovatus</i> - hard quandong	
<i>Parachidendron pruinatum</i> - snow wood	<i>Ficus fraseri</i> - sandpaper fig	
<i>Pittosporum rhombifolium</i> - diamond leaf pittosporum	<i>Ficus racemosa</i> - cluster fig	
<i>Polyscias elegans</i> - celerywood	<i>Flindersia schottiana</i> - bumpy ash	
<i>Pouteria pohlmaniana</i> - yellow boxwood	<i>Glochidion summatranum</i> - buttonwood	
<i>Sterculia quadrifida</i> - peanut tree	<i>Harpullia hillii</i> - tulipwood	
<i>Toona ciliata</i> - red cedar	<i>Hymenosporum flavum</i> - native frangipani	
	<i>Jagera pseudorhus</i> - foambark	
	<i>Mallotus claoxyloides</i> - green kamala	
	<i>Oplismenus aemulus</i> - creeping beard grass	
	<i>Pandorea pandorana</i> - wonga vine	
	<i>Pavetta australiensis</i> - pavetta,	
	<i>Streblus brunonianus</i> - whalebone tree	
	<i>Syzygium francisii</i> - giant water gum	Note: Some species occur in adjacent zones.
	<i>Tabernaemontana pandacqui</i> - banana bush	

For further information call:

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