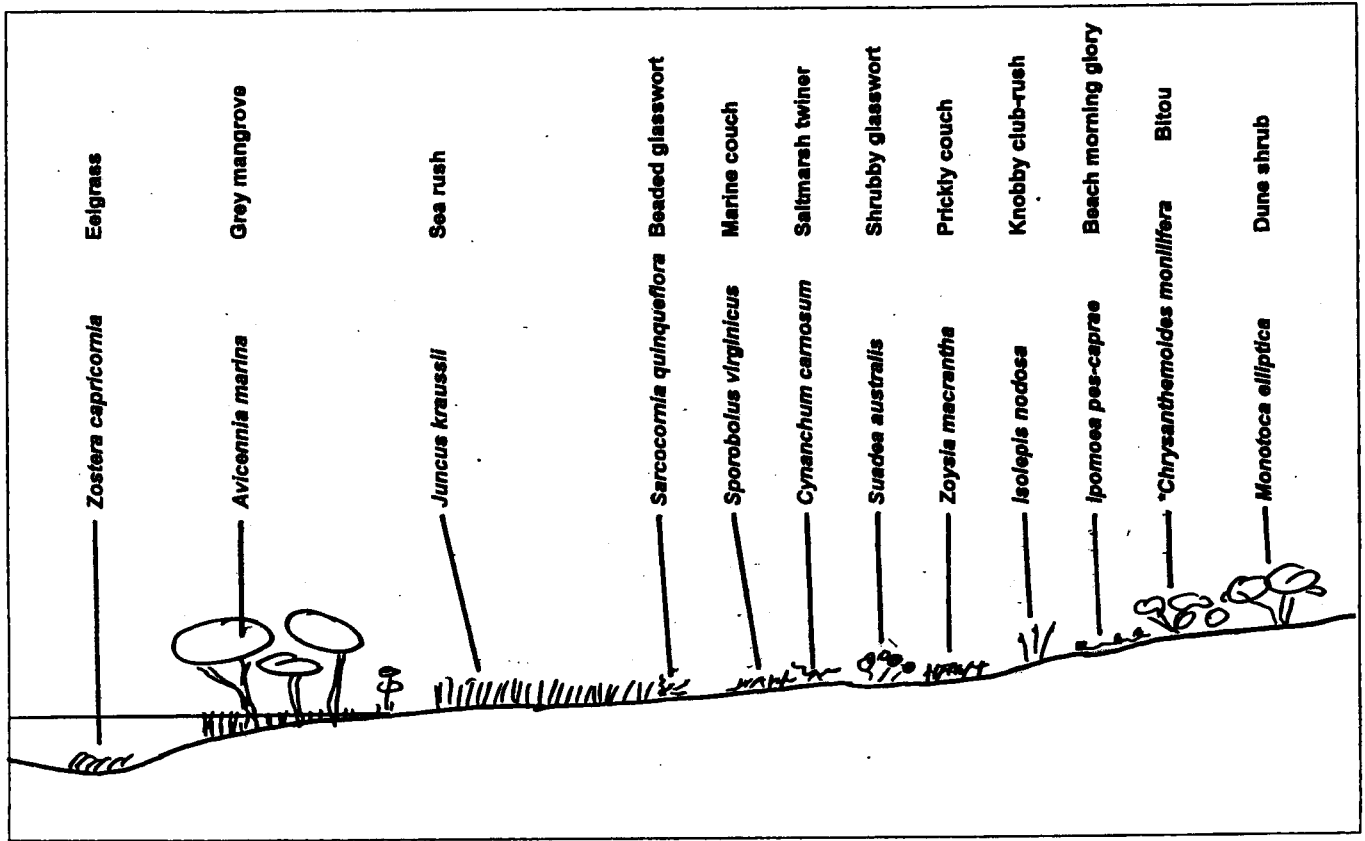
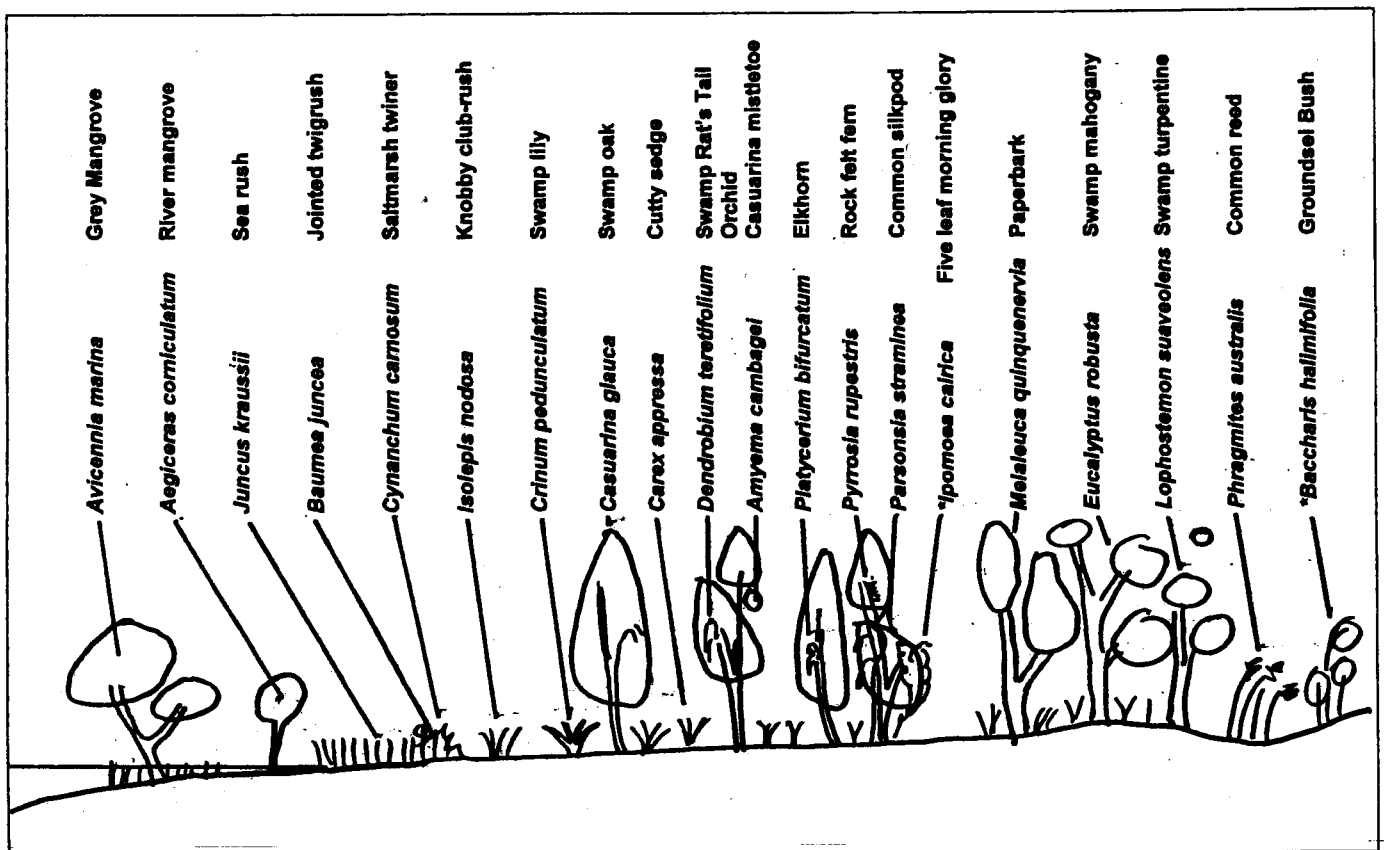


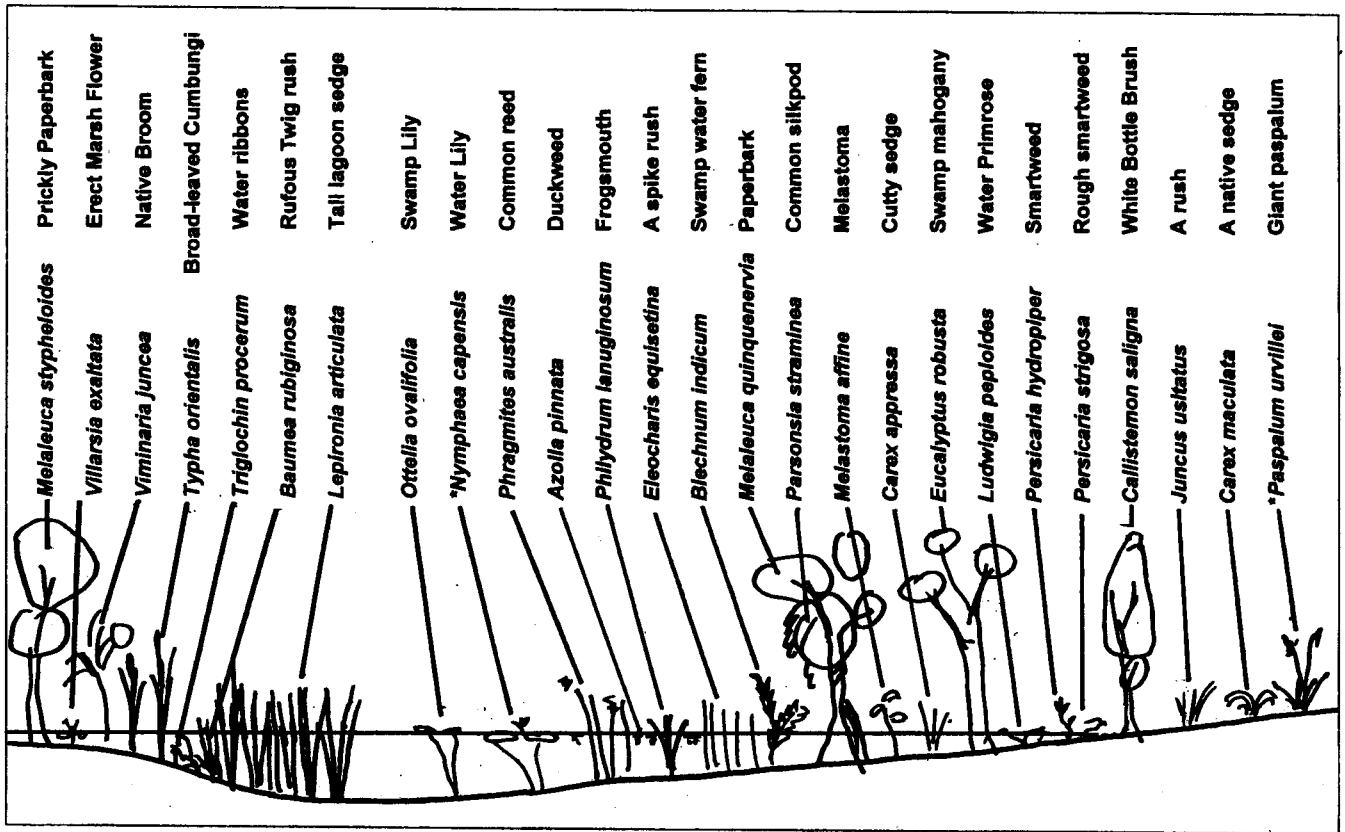
Common Wetland Species of the Bellinger Valley



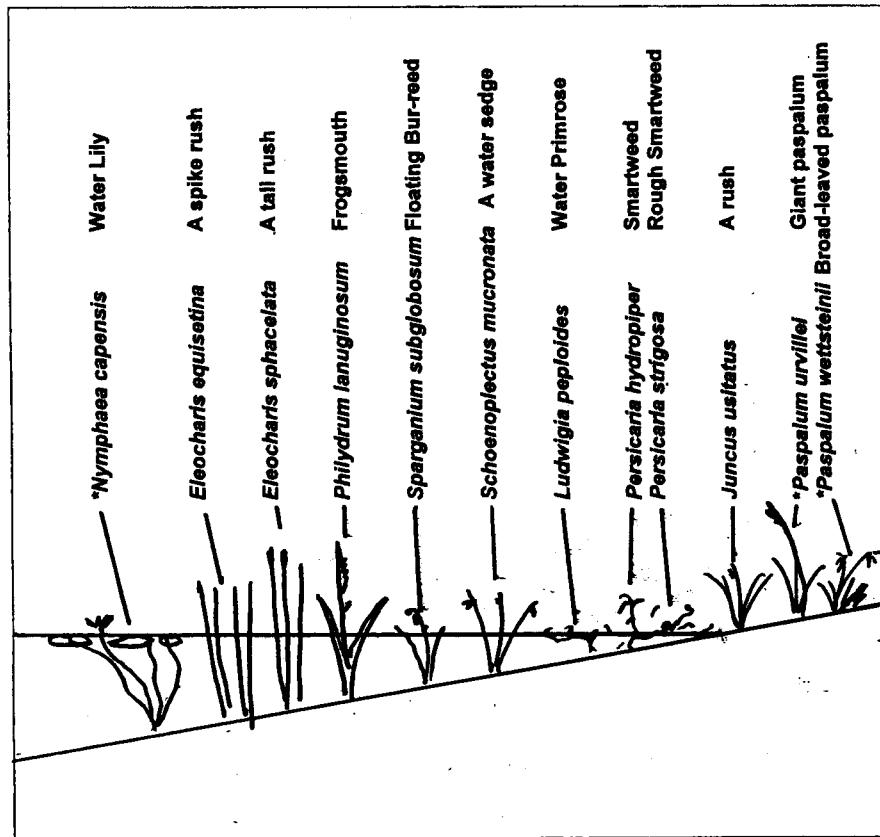
seagrass beds, mangroves & saltmarsh



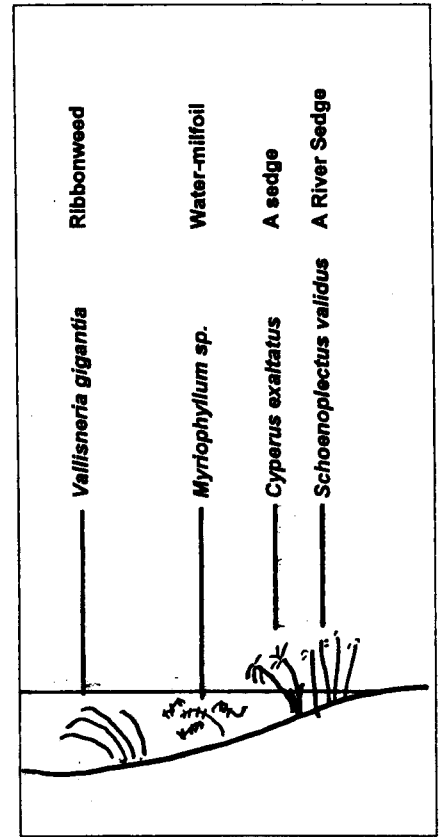
mangroves & swamp-oak forest



floodplain swamp



farm dam



freshwater river

- Melaleuca stypheloides* Prickly Paperbark
- Villarsia exaltata* Erect Marsh Flower
- Viminaria juncea* Native Broom
- Typha orientalis* Broad-leaved Cumbungi
- Triglochin procerum* Water ribbons
- Baumea rubiginosa* Rufous Twig rush
- Lepironia articulata* Tall lagoon sedge
- Ottelia ovalifolia* Swamp Lily
- **Nymphaea capensis* Water Lily
- Phragmites australis* Common reed
- Azolla pinnata* Duckweed
- Philydrum lanuginosum* Frogsmouth
- Eleocharis equisetina* A spike rush
- Blechnum indicum* Swamp water fern
- Melaleuca quinquenervia* Paperbark
- Parsonsia straininea* Common silkpod
- Melastoma affine* Melastoma
- Carex appressa* Cutty sedge
- Eucalyptus robusta* Swamp mahogany
- Ludwigia pepioides* Water Primrose
- Persicaria hydropper* Smartweed
- Persicaria strigosa* Rough smartweed
- Callistemon saligna* White Bottle Brush
- Juncus usitatus* A rush
- Carex maculata* A native sedge
- **Paspalum urvillei* Giant paspalum

- **Nymphaea capensis* Water Lily
- Eleocharis equisetina* A spike rush
- Eleocharis sphacelata* A tall rush
- Philydrum lanuginosum* Frogsmouth
- Sparganium subglobosum* Floating Bur-reed
- Schoenoplectus mucronata* A water sedge
- Ludwigia pepioides* Water Primrose
- Persicaria hydropper* Smartweed
- Persicaria strigosa* Rough Smartweed
- Juncus usitatus* A rush
- **Paspalum urvillei* Giant paspalum
- **Paspalum wettsteinii* Broad-leaved paspalum

- Vallisneria gigantea* Ribbonweed
- Myriophyllum sp.* Water-milfoil
- Cyperus exaltatus* A sedge
- Schoenoplectus validus* A River Sedge

MANAGEMENT OF NATIVE VEGETATION IN WETLANDS.

General

Wetland Plant Requirements

Each wetland species has its own special requirements as regards water depth, period of inundation, salinity and the soil and water chemistry, all of which can change very quickly with slight changes along a gradient.

Drainage

Changes to the drainage and soil structure can have quite dramatic effects on the native plant species. Drainage changes can completely alter the kind of wetland—its depth, its period of inundation, and the soil and water chemistry—and this changes the plant species that can survive.

Fencing

Provided they do not have serious weed invasion, most kinds of coastal wetlands (even those altered by drainage) can respond very well just to the fencing out of stock. This reduces adverse impacts on the soil surface and drainage, and on the condition and natural regeneration of native vegetation.

Planting

Because of the precise requirements of wetland species, planting of wetland species demands accurate species selection. Since in most cases nature will be better at this than you, planting is more often than not unnecessary. In most situations a *wait-and-see* approach is advisable.

Weeds

In several types of wetland there are few serious invasive weeds. Most of the weeds that require control occur on those portions of the wetland that are slightly higher.

Wetland Types

Salt marsh

Can be slow to recover after fencing, but usually native plant colonisation will occur unassisted. Weeds that may require control include Sharp Rush (*Juncus acutus*) and, particularly on slightly higher ground, Buffalo Grass and Groundsel Bush.

Mangroves

Mangroves usually respond well to the fencing out of stock. They regenerate naturally and weeds are not a problem. If need be Grey Mangroves can be planted directly as seed into intertidal mud.

Swamp Oak Forest

They usually respond well to fencing and regenerate naturally if seed bearing adult trees are present. Weeds that may require control include Groundsel Bush, Lantana, & Five-leaved Morning Glory, some exotic grasses

Swamp Paperbark Forest

Although more varied than Swamp Oak Forest, both in their structure and in their responses, they still respond well to fencing. Weeds include Lantana, Groundsel Bush, Wandering Jew, & Five-leaved Morning Glory

Floodplain Backswamp Sedgeland

Native sedges, rushes and ferns usually recover well when fenced. Weeds usually only occur on the edges, and include Groundsel Bush & Giant Paspalum,

Farm Dams

Farm dams attract their own specific suite of wetland species. Blue Water Lily is a very common exotic species in farm dams. Spread by waterfowl, it is difficult to eradicate and exclude. Most other species are native. Although natural colonisation will usually take place, especially if water levels are stable, farm dam species can be introduced by translocating some plants or soil from other healthy farm dams. However, be wary of introducing exotic pond species to farm dams. They may have serious weed potential in the dam itself and downstream.

Common Wetland Species of the Bellinger Valley by Wetland Type

Seagrasses

Herbs *Zostera capricornia* Eelgrass

Mangrove Community

Trees *Aegiceras corniculatum* River mangrove
Avicennia marina Grey mangrove

Salt Marsh

Herbs *Baumea juncea* Jointed twigrush
Isolepis nodosa Knobby club-rush
Juncus kraussii Sea rush
Sarcocornia quinqueflora Beaded glasswort
Sporobolus virginicus Marine couch
Zoysia macrantha Prickly couch

Shrubs *Suaeda australis* Shrubby glasswort

Twiners *Cynanchum carnosum* Saltmarsh twiner

Swamp Oak Forest

Epiphytes *Dendrobium teretifolium* Swamp rat's tail orchid
Platyserium bifurcatum Elkhorn
Pyrrosia rupestris Rock felt fern

Herbs *Baumea juncea* Jointed twigrush
Crinum pedunculatum Swamp lily
Einadia hastata Berry saltbush
Phragmites australis Common reed
Tetragonia tetragonoides Botany Bay greens

Mistletoes *Amyema cambagei* Casuarina mistletoe

Shrubs *Myoporum acuminatum* Mangrove boobialla

Trees *Casuarina glauca* Swamp oak

Vines **Baccharis halimifolia* Groundsel bush
**Ipomoea cairica* Five leaf morning glory
Parsonsia straminea Common silkpod

Floodplain Swamps

Herbs *Azolla pinnata* Duckweed
Baumea rubiginosa Rufous twig rush
Blechnum indicum Swamp water fern
Carex appressa Cutty sedge
Carex maculata A native sedge
Centella asiatica Pennywort
Cotula coronopifolia Waterbuttons

	<i>Cyperus polystachyos</i>	Bunchy flatsedge
	<i>Eleocharis equisetina</i>	A spike rush
	<i>Gahnia sieberiana</i>	Saw-sedge
	<i>Juncus polyanthemus</i>	A rush
	<i>Juncus prismatocarpus</i>	A rush
	<i>Juncus usitatus</i>	A rush
	<i>Lepironia articulata</i>	Tall lagoon sedge
	<i>Otelia ovalifolia</i>	Swamp lily
	<i>Paspalum distichum</i>	Water couch
	<i>Persicaria hydropiper</i>	Smartweed
	<i>Persicaria strigosa</i>	Rough smartweed
	<i>Philydrum lanuginosum</i>	Frogsmouth
	<i>Phragmites australis</i>	Common reed
	<i>Triglochin procerum</i>	Water ribbons
	<i>Typha orientalis</i>	Broad-leaved cumbungi
	<i>Villarsia exaltata</i>	Erect marsh flower
	* <i>Nymphaea capensis</i>	Cape waterlily
	* <i>Paspalum urvillei</i>	Giant paspalum
	* <i>Paspalum wettsteinii</i>	Broad-leaved paspalum
Shrubs	<i>Melastoma affine</i>	Melastoma
	<i>Viminaria juncea</i>	Native broom
Trees	<i>Callistemon saligna</i>	White bottle brush
	<i>Eucalyptus robusta</i>	Swamp mahogany
	<i>Lophostemon suaveolens</i>	Swamp turpentine
	<i>Melaleuca linariifolia</i>	Snow in summer
	<i>Melaleuca quinquenervia</i>	Paperbark
	<i>Melaleuca sypheoides</i>	Prickly paperbark
Vines	<i>Parsonsia straminea</i>	Common silkpod
Farm Dams		
Herbs	* <i>Nymphaea capensis</i>	Cape waterlily
	* <i>Paspalum urvillei</i>	Giant paspalum
	* <i>Paspalum wettsteinii</i>	Broad-leaved paspalum
	<i>Eleocharis equisetina</i>	A spike rush
	<i>Eleocharis sphacelata</i>	A tall rush
	<i>Juncus usitatus</i>	Common rush
	<i>Ludwigia peploides</i>	Water primrose
	<i>Persicaria hydropiper</i>	Smartweed
	<i>Persicaria strigosa</i>	Rough smartweed
	<i>Philydrum lanuginosum</i>	Frogsmouth
	<i>Schoenoplectus mucronata</i>	A water sedge
	<i>Sparganium subglobosum</i>	Floating bur-reed
	<i>Typha orientalis</i>	Broad-leaved cumbungi
Rivers (in stream)		
Herbs	<i>Carex longibrachiata</i>	Tussock (Cutty Grass)
	<i>Cyperus exaltatus</i>	A sedge
	<i>Myriophyllum sp.</i>	Water-milfoil
	<i>Schoenoplectus validus</i>	A River Sedge
	<i>Vallisneria gigantia</i>	Ribbonweed

*Non native species

Common Wetland Species of the Bellinger Valley by Family

FLOWERING PLANTS

MONOCOTYLEDONS (grasses, sedges, rushes, reeds, etc)

AMARYLLIDACEAE Onion Family	<i>Crinum pedunculatum</i>	Swamp lily
CYPERACEAE Sedge Family	<i>Baumea juncea</i> <i>Baumea rubiginosa</i> <i>Carex appressa</i> <i>Carex longebrachiata</i> <i>Carex maculata</i> <i>Cyperus exaltatus</i> <i>Cyperus polystachyos</i> <i>Eleocharis equisetina</i> <i>Eleocharis sphacelata</i> <i>Gahnia sieberiana</i> <i>Isolepis nodosa</i> <i>Lepironia articulata</i> <i>Schoenoplectus mucronata</i> <i>Schoenoplectus validus</i>	Jointed twigrush Rufous Twig rush Cutty sedge Tussock (Cutty Grass) A native sedge A sedge Bunchy flatsedge A spike rush A tall rush Saw-sedge Knobby club-rush Tall lagoon sedge A water sedge A River Sedge
HYDROCHARITACEAE Water Ribbons Family	<i>Otelia ovalifolia</i> <i>Vallisneria gigantia</i>	Swamp Lily Ribbonweed
JUNCACEAE Rush Family	<i>Juncus kraussii</i> <i>Juncus polyanthemus</i> <i>Juncus prismatocarpus</i> <i>Juncus usitatus</i>	Sea rush A rush A rush Common rush
JUNCAGINACEAE	<i>Triglochin procerum</i>	Water ribbons
ORCHIDACEAE Orchid Family	<i>Dendrobium teretifolium</i>	Swamp rat's tail orchid
PHYLIDRACEAE	<i>Philydrum lanuginosum</i>	Frogsmouth
POACEAE Grass Family	<i>Paspalum distichum</i> <i>Phragmites australis</i> <i>Sporobolus virginicus</i> <i>Zoysia macrantha</i> * <i>Paspalum urvillei</i> * <i>Paspalum wettsteinii</i>	Water couch Common reed Marine couch Prickly couch Giant paspalum Broad-leaved paspalum
SPARGANIACEAE	<i>Sparganium subglobosum</i>	Floating Bur-reed
TYPHACEAE Bull Rush Family	<i>Typha domingensis</i> <i>Typha orientalis</i>	Narrowleaved cumbungi Broad-leaved cumbungi

ZOSTERACEAE
Eelgrass Family

Zostera capricorni

Eelgrass

DICOTYLEDONS

AIZOACEAE

Tetragonia tetragonoides

Botany Bay greens

APIACEAE

Umbelliferous Family

Centella asiatica

Pennywort

APOCYNACEAE

Dogbane Family

Parsonsia straminea

Common silkpod

ASCLEPIADACEAE

Cynanchum carnosum

Saltmarsh twiner

ASTERACEAE

Daisy Family

**Baccharis halimifolia*
Cotula coronopifolia

Groundsel Bush
Waterbuttons

CASUARINACEAE

Casuarina Family

Casuarina glauca

Swamp oak

CHENOPODIACEAE

Beet Family

Einadia hastata
Sarcocornia quinqueflora
Suaeda australis

Berry saltbush
Beaded glasswort
Shrubby glasswort

CONVOLVULACEAE

Convolvulus Family

**Ipomoea cairica*

Five leaf morning glory

FABACEAE

Pea Family

Viminaria juncea

Native Broom

HALORAGACEAE

Milfoil Family

Myriophyllum sp.

Water-milfoil

LORANTHACEAE

Mistletoe Family

Amyema cambagei

Casuarina mistletoe

MELASTOMACEAE

Tibouchina Family

Melastoma affine

Melastoma

MENYANTHACEAE

Villarsia exaltata

Erect Marsh Flower

MYOPORACEAE

Myoporum acuminatum

Mangrove boobialla

MYRSINACEAE

Nutmeg Family

Aegiceras corniculatum

River mangrove

MYRTACEAE

Myrtle Family

Callistemon saligna
Eucalyptus robusta
Lophostemon suaveolens
Melaleuca linariifolia
Melaleuca quinquenervia
Melaleuca sypheoloides

White bottle brush
Swamp mahogany
Swamp turpentine
Snow in summer
Paperbark
Prickly paperbark

NYMPHAEACEAE	<i>*Nymphaea capensis</i>	Water Lily
ONAGRACEAE	<i>Ludwigia peploides</i>	Water primrose
POLYGONACEAE Dock Family	<i>Persicaria hydropiper</i> <i>Persicaria strigosa</i>	Smartweed Rough smartweed
VERBENACEAE Verbena Family	<i>Avicennia marina</i>	Grey mangrove

FERNS

AZOLLACEAE	<i>Azolla pinnata</i>	Duckweed
BLECHNACEAE	<i>Blechnum indicum</i>	Swamp water fern
POLYPODIACEAE	<i>Platycerium bifurcatum</i> <i>Pyrrosia rupestris</i>	Elkhorn Rock felt fern
	*Non native species	

This leaflet has been produced by R. Macleay as part of the Northern Rivers Catchment Management Authority's Biodiversity Conservation & Enhancement Project with the support of Bellinger Landcare.

