

# PLANT COMMUNITY FIELD GUIDE



Coastal Sheltered-Apple  
Peppermint Forest



Map  
Unit  
11



# HCCREMS Extant Vegetation Mapping

Vegetation communities this guide have been classified and mapped according to Hunter Central Coast Regional Environment Management Strategy (HCCREMS) Vegetation Survey, using Mapping Units (MU). For more comprehensive and up-to-date information on this survey please contact HCCREMS.

<http://www.hccrems.com.au>

When you are starting out regenerating a bushland site, it may be that you don't know a lot of native species, but if you can provide a council vegetation officer, community support officer or local native plant nursery with some of the information from the Field Data sheet, it is likely that they would be able to identify the broader vegetation community.

The Site Orientation Booklet in this series has a useful contact list including:

Coastcare Officers

Landcare and Community Support Officers

National Parks Officers

Land Managers

# Field Data Sheet

Habitat Type: <i>please circle</i>			
River bank	Wetland	Floodplain	Drainage line
Open Forest	Closed Forest	Rainforest	Disturbed / Grazed (Livestock)
Shrub(2-4m)	Heath (< 2m)	Grassland	Other:
Position on Slope : <i>please circle</i> Watercourse   Flat   Lower Slope   Upper Slope   Crest   Dune			Altitude in metres
Geology		Aspect: <i>please circle</i> N   NE   E   SE   S   SW   W   NW	
Soil Description			
Colour	Type	pH	Sand  Clay   Loam
Vegetation Description			
Vegetation community, association, type		Weed Invasion: <i>please circle</i> High   Medium   Low	
Dominant upper storey species		Species diversity: <i>please circle</i> High   Medium   Low	
Dominant middle storey species		Species diversity: <i>please circle</i> High   Medium   Low	
Dominant lower storey/groundcover species		Species diversity: <i>please circle</i> High   Medium   Low	

# Riparian Vegetation Communities

Of the Lower Hunter vegetation communities, the range of riparian vegetation communities is the most varied and complex.

Riparian communities tend to be linear as they follow the watercourse and so the species composition of such communities can vary greatly from the headwaters to the river or creek mouth.

Because of this also there will necessarily be some overlapping with vegetation communities discussed elsewhere:

- Map Unit 1a Coastal Warm Temperate- Subtropical Rainforest  
Tends to be in the upper catchment of coastal creeks and rivers e.g. Martinsville valley in the upper Dora Creek catchment.
- Map Unit 4 Littoral Rainforest  
May be in the lower catchment of creeks and rivers entering the sea or coastal lakes e.g. Glenrock Lagoon at the mouth of the Flaggy Creek catchment.
- Map Unit 40. Swamp Oak- Rushland Forest  
Occurs in the lower catchments of Lake Macquarie, Hunter River system, and Port Stephens.
- Map Unit 40a. Phragmites Rushland  
Occurs in the lower catchments of Lake Macquarie, Hunter River system, and Port Stephens.
- Map Unit 47. Mangrove Estuarine Complex  
Occurs in the lower catchments of Lake Macquarie, Hunter River system, and Port Stephens.
- Map Unit 47a. Saltmarsh  
Occurs in the lower catchments of Lake Macquarie, Hunter River system, and Port Stephens.



Swamp Oak- Rushland Forest



Mangrove Estuarine Complex

## Upper Catchment Riparian Communities

In the upper catchment of creek systems in the Lake Macquarie and Newcastle LGAs (i.e. Winding Creek, Flaggy/Little Flaggy Creeks, upper Cockle Creek, Blue Gum Creek, Styx/ Throsby Creeks, Wentworth Creek and Ironbark Creek, for example), vegetation community remnants resemble the following LHCCREMS profiles:

- Map Unit 5 Alluvial Tall Moist Forest  
These communities have been compromised by urban development, farming, mining, and urban infrastructure, such as power-line easements. The LHCCREMS profiles still form a useful guide for replanting, particularly in the mid-storey and understorey.
- Map Unit 11 Coastal Sheltered Apple-Peppermint Forest  
Again, these communities have been compromised by development.



## Lower Catchment Riparian Communities

In the lower catchments of Lake Macquarie, Newcastle, Port Stephens LGAs, where river/creek systems are still fresh water systems, the following LHCCREMS vegetation community remnants occur:

- Map Unit 36 Tomago Sand Swamp Woodland -confined to Port Stephens
- Map Unit 37 Swamp Mahogany- Paperbark Forest  
Discussed elsewhere with reference to wetland vegetation communities
- Map Unit 38 Redgum Rough Barked Apple Forest  
Occurs on the foreshores of Lake Macquarie
- Map Unit 41 Swamp Oak Sedge Forest
- Map Unit 42 Riparian Melaleuca Swamp Woodland
- Map Unit 42a Melaleuca Scrub
- Map Unit 44 Coastal Wet Sand Cyperoid Heath-  
occurs in Port Stephens
- Map Unit 46 Freshwater Wetland Complex

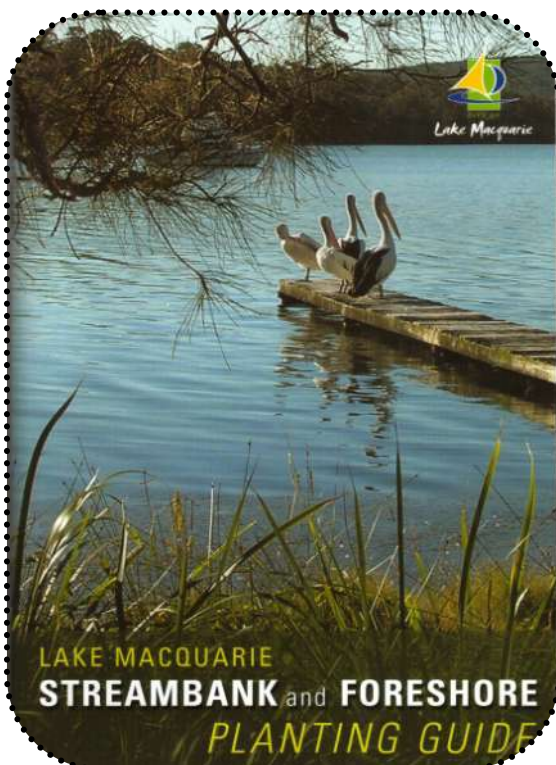
Below the above vegetation communities in the catchment the estuarine communities are found.



Melaleuca Swamp Woodland

These riparian vegetation communities can contain the following Endangered Ecological Communities:

- Endangered Ecological Community- Littoral Rainforest
- Endangered Ecological Community- Lowland Rainforest.
- Endangered Ecological Community- Saltmarsh
- Endangered Ecological Community- Swamp sclerophyll forest on coastal floodplain
- Endangered Ecological Community- Swamp Oak Floodplain Forest
- Endangered Ecological Community- Freshwater Wetlands



A useful guide to riparian planting in the Lake Macquarie LGA is the Lake Macquarie Streambank and Foreshore Planting Guide by the Lake Macquarie Catchment Management Committee April 2000, (updated 2005).

The information in this guide could be extrapolated to Newcastle and Port Stephens LGAs in combination with the LHCCREMS profiles to insure that only indigenous species were being planted.

# Description of An Upper Catchment Riparian Community

## MU11 .Coastal Sheltered Apple - Peppermint Forest

Abridged from [http://www.lhccrems.nsw.gov.au/biodiversity/mu11\\_14.html#mu11](http://www.lhccrems.nsw.gov.au/biodiversity/mu11_14.html#mu11)

Canopy Label: *A. costata* / *E. piperita*  
Structural Classification (Specht): Open Forest

### Description

Coastal Apple-Peppermint Sheltered Forest is dominated by *Eucalyptus piperita* in sheltered gullies in north and north eastern rises behind Lake Macquarie. *Angophora costata* is consistently present as a co-dominant or sub dominant canopy species. *Corymbia maculata* can be locally dominant. The mid-storey is characteristically comprised of *Allocasuarina torulosa* and in deeper gullies, *Pittosporum undulatum* and *Glochidion ferdinandi* above a shrubby layer of *Dodonea triquetra*, *Notolea longifolia* and *Rapanea variaibilis*. The ground layer vegetation comprises *Pteridium esculentum*, *Adiantum aethiopicum*, *Poa affinis* and a diversity of other herbaceous species.

Commonly Coastal Sheltered Apple-Peppermint Forest is found in gullies and valleys adjacent to ridges supporting Map Unit 15: Coastal Foothills Spotted Gum Ironbark Forest between Cardiff and Charlestown. Examples of this community also occur in Glenrock State Recreation Area. An outlying patch of this Map unit occurs in Medowie State Forest in Port Stephens Shire.

There are no similar Forest Ecosystems described in NPWS (1999a).

# Description of MU 11

## Coastal Sheltered Apple-Peppermint Forest

Stratum	Species	% within community	Common Name
Tallest	<i>Angophora costata</i>	100%	
	<i>Eucalyptus piperita</i>	71%	
	<i>Corymbia maculata</i>	28%	
	<i>Corymbia gummifera</i>	28%	
	<i>Casuarina glauca</i>	28%	
	<i>Syncarpia glomulifera</i>	14%	
	<i>Eucalyptus umbra</i>	14%	
	<i>Eucalyptus siderophloia</i>	14%	
Upper Mid	<i>Allocasuarina torulosa</i>	85%	
	<i>Pittosporum undulatum</i>	57%	
	<i>Glochidion ferdinandi</i>	42%	
	<i>Backhousia myrtifolia</i>	14%	
	<i>Melaleuca styphelioides</i>	14%	
Lower Mid	<i>Dodonaea triquetra</i>	42%	
	<i>Notelaea longifolia</i>	42%	
	<i>Rapanea variabilis</i>	42%	
Lowest (<1m)	<i>Pteridium esculentum</i>	85%	
	<i>Adiantum aethiopicum</i>	71%	
	<i>Poa affinis</i>	71%	
	<i>Pseudoraphis paradoxa</i>	71%	
	<i>Desmodium varians</i>	57%	
	<i>Entolasia marginata</i>	57%	
	<i>Lepidosperma neesii</i>	57%	
	<i>Oplismenus aemulus</i>	57%	
	<i>Pratia purpurascens</i>	57%	
	<i>Calochlaena dubia</i>	42%	
	<i>Dichondra repens</i>	42%	
	<i>Doodia aspera</i>	42%	
	<i>Entolasia stricta</i>	42%	
	<i>Viola hederacea</i>	42%	
Vines and Epiphytes	<i>Smilax glyciophylla</i>	71%	
	<i>Geitonoplesium cymosum</i>	42%	
	<i>Muehlenbeckia gracillima</i>	14%	
	<i>Eustrephus latifolius</i>	100%	

A picture guide to plants in  
MU 11- Coastal Sheltered Apple-Peppermint Forest

Tall trees

*Angophora costata* Smooth barked Apple



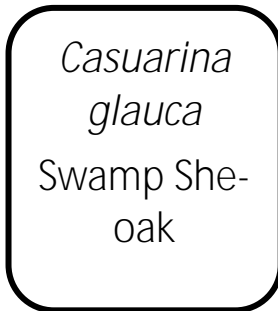
*Corymbia maculata*  
Spotted Gum



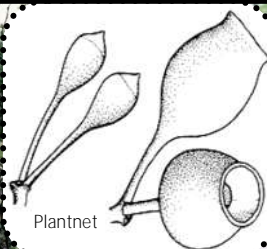
*Eucalyptus piperita*  
Sydney  
Peppermint



*Casuarina glauca*  
Swamp She-oak



*Corymbia gummifera*  
Red Bloodwood



# Upper Mid storey



*Allocasuarina torulosa*  
Forest She-Oak



*Glochidion ferdinandi*  
Cheese Tree



*Pittosporum undulatum*  
Sweet Pittosporum



*Backhousia myrtifolia*  
Grey Myrtle



*Melaleuca styphelioides*  
Prickly-leaved Paperbark

# Lower Mid

*Dodonaea triquetra*  
Hop bush



*Notelaea longifolia* Mock Olive



*Rapanea variabilis* Muttonwood

# Vine

*Eustrephus latifolius*  
Wombat Berry



Lowest < 1m



*Pteridium esculentum*  
Bracken Fern

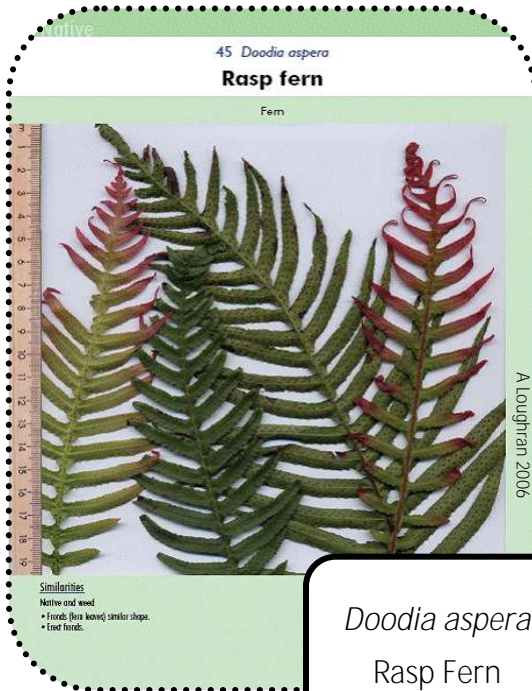


*Adiantum aethiopicum*  
Maidenhair Fern



*Oplismenus spp* Basket Grass

*Entolasia stricta*



*Doodia aspera*  
Rasp Fern



*Viola hederaceae*  
Native Violet



## References

Hunter Councils Inc (2003) Lower Hunter and Central Coast Regional Environmental Strategy [http://www.lhccrems.nsw.gov.au/biodiversity/mu11\\_14.html#mu11](http://www.lhccrems.nsw.gov.au/biodiversity/mu11_14.html#mu11) (Accessed 07.01.08)

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## Image Credits

All plant photographs unless otherwise stated are by Peter Saunderson, TIN volunteer.

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Page 5-Littoral Rainforest <http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10867> (accessed 10/8/07)

Page 5-SaltMarsh <http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10866> (accessed 10/8/07)

Page 5-Freshwater Wetland– Michael Murphey <http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10929> (accessed 10/8/07)

Page 5-Streambank & Foreshore Planting guide (2005) Lake Macquarie Catchment Management Committee. Lake Macquarie City Council

Page 9 Corymbia gummifera : Trunk/sap pic Marita Macrae [http://www.pittwater.nsw.gov.au/environment/plants\\_\\_and\\_\\_animals/native\\_animals/sugar\\_glidern](http://www.pittwater.nsw.gov.au/environment/plants__and__animals/native_animals/sugar_glidern) (accessed 9/8/07)

Page 9 Corymbia gummifera Gumnuts-Plantnet, Tree D. Hardin Dec 2004 ©Royal Botanic Gardens & Domain Trust, Sydney Australia <http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Corymbia-gummifera> (accessed 9/8/07)

Page 9 Eucalyptus piperita Photo H. Jolley Mar 2003 ©Royal Botanic Gardens & Domain Trust, Sydney Australia <http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&photo=31&file=23/633/324161.jpg> (accessed 9/8/07)

Page 12 Oplimemus and Doodia: Ann Loughran (2006) Native plant or Weed-Pick the Differ-

ence. Dept Primary Industry ISBN 0 7313 0598 1

## Useful people

The Site Orientation Booklet in this series has a useful contact list including

Coastcare Officers

Landcare and Community Support Officers

National Parks Officers

Land Managers



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