Environment, Climate Change & Water

New England Peppermint (Eucalyptus nova-anglica) Woodland on Basalts and Sediments in the New England Tableland Bioregion

Introduction

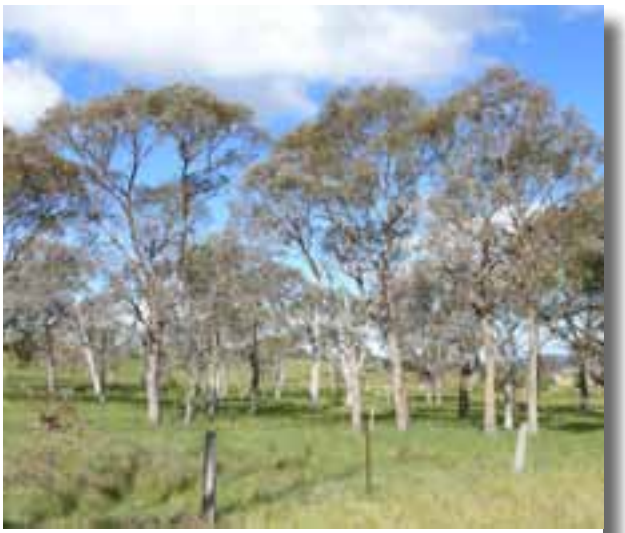
These guidelines provide background information to assist landholders to identify remnants of 'New England Peppermint (*Eucalyptus nova-anglica*) Woodland on Basalts and Sediments in the New England Tableland Bioregion' (known here as New England Peppermint Woodland). For more detailed information, refer to the NSW Scientific Committee Determination Advice at www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10558

What is an endangered ecological community?

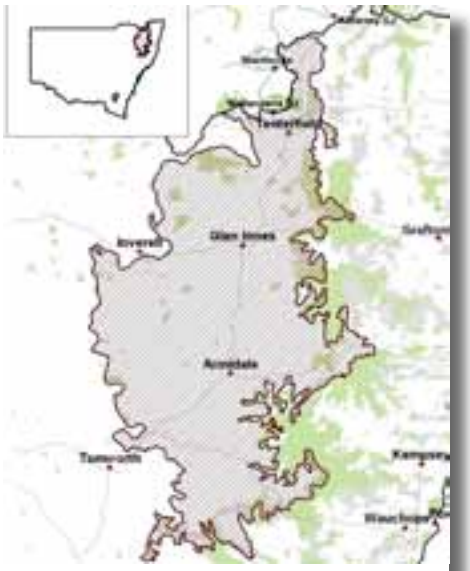
An ecological community is a unique and naturally occurring assemblage of plants and animals. The presence of an ecological community can be determined by factors such as soil type, position in the landscape, climate and water availability, all of which influence species composition.. An endangered ecological community (EEC) is an ecological community listed under the *Threatened Species Conservation Act 1995* as being at risk of extinction unless threats affecting these areas are managed and reduced.

What is New England Peppermint Woodland?

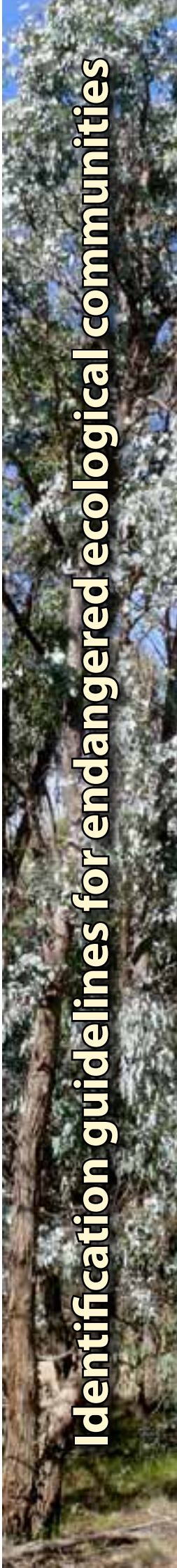
New England Peppermint Woodland is typically an open forest or woodland that occurs at high elevations on valley flats and depressions that are subject to cold air drainage. Soils are poorly drained loam-clays derived from basalt, fine-grained sedimentary or acid volcanic substrates. The tree layer, when present, is usually 8 to 20m tall and dominated by New England Peppermint (*Eucalyptus nova-anglica*), occasionally in association with other tree species including mountain gum (*E. dalrympleana* subsp. *heptantha*) and Blakely's red gum (*E. blakelyi*). The shrub layer is either sparse or absent. There is a dense ground layer of various grasses and herbs.



New England Peppermint Woodland – near Deepwater Image from NSWVCA database, courtesy of Botanic Gardens Trust, Sydney. Photograph: P Richards



Potential occurence of New England Peppermint Woodland



Where is New England Peppermint Woodland found?

New England Peppermint Woodland is found on the New England Tablelands. It is known from the Dumaresq, Guyra, Inverell, Severn and Tenterfield Local Government Areas, but may occur elsewhere on the New England Tablelands. For instance, it is now known to occur south of these areas in the Namoi Catchment Management Area.

Why is it important?

Only a very small area (less than 10%) of the original distribution of New England Peppermint Woodland remains, and much of this is in poor condition. A large proportion of the remainder of this community is threatened by ongoing clearing for agriculture, unsustainable grazing by stock, pasture improvement practices, eucalypt dieback and invasion of the understorey by exotic weeds.

Description of the community

The tree layer

The common canopy species is New England Peppermint, with occasional mountain gum or Blakely's red gum. In some remnants the tree layer may be absent or very scattered as a result of previous disturbance and dieback.

The shrub layer

The shrub layer is absent or very sparse. When present, shrubs such as beard heath *(Leucopogon fraseri),* urn-heath *(Melichrus urceolatus), Pimelea curviflora* var. *divergens, P. glauca,* peach heath (*Lissanthe strigosa),* viscid daisy bush *(Olearia viscidula),* tree violet *(Melicytus dentatus)* or bush pea *(Pultenaea microphylla)* may occur at low frequency.

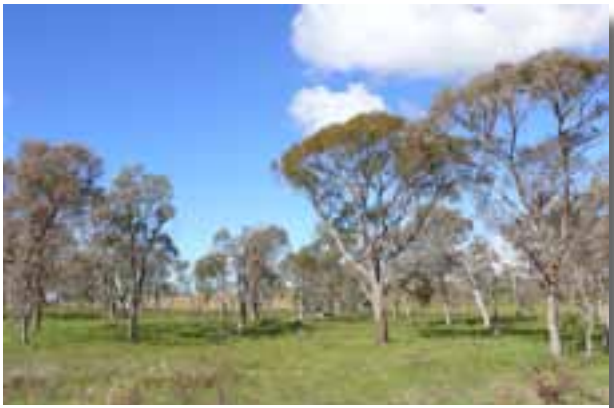
The ground layer

There is usually a dense ground cover of mixed grasses, herbs and forbs dominated by snow grass (*Poa sieberiana*), common woodruff *(Asperula conferta),* kangaroo grass (*Themeda australis),* the rush *Juncus filicaulis,* kidney weed *(Dichondra repens), Veronica calycina, Carex inversa,* bidgee-widgee (*Acaena novae-zelandiae), Rumex brownii, Acaena ovina, Desmodium varians,* native geranium *(Geranium solanderi* var. *solanderi),* tussock *(Poa labillardierei* var. *labillardierei), Cymbonotus lawsonianus, Lespedeza juncea* subsp. *sericea* and *Viola betonicifolia.*

Variation in the community

At heavily disturbed sites only some of the species which characterise the community may be present. For example, there is some variation in the structure of remnants due to different stages of regrowth after clearing or dieback. In addition, above ground plants of some species may not be present, but may be represented below ground in the soil seed bank or as bulbs, corms, rhizomes or rootstocks.

New England Peppermint Woodland – remnant woodland in background; derived native grassland in foreground, with the invasive shrub hawthorn (Crataegus monogyna)*; Wandsworth. Image from NSWVCA database, courtesy of Botanic Gardens Trust, Sydney. Photograph: P Richards*



New England Peppermint Woodland – with associate Blakely's red gum (right of centre). Image from NSWVCA database, courtesy of Botanic Gardens Trust, Sydney. Photograph: P Richards

Characteristic species

A list of canopy trees and shrub-layer plants that characterise a patch of New England Peppermint Woodland is provided in the Table below. Not all the species listed need to occur at any one site for it to be considered New England Peppermint Woodland, and there may also be additional species that are not included in the table.

Acaena ovina	*Acaena novae-zelandiae*
Ammobium alatum	*Aristida jerichoensis* var. *subspinulifera*
Asperula conferta	*Austrodanthonia racemosa* var. *racemosa*
Bothriochloa macra	*Bulbine bulbosa*
Carex inversa	*Cassinia quinquefaria*
Chrysocephalum apiculatum	*Craspedia variabilis*
Crassula sieberiana	*Cymbonotus lawsonianus*
Cymbopogon refractus	*Desmodium varians*
Dichelachne micrantha	*Dichondra repens*
Dichopogon fimbriatus	*Drosera peltata*
Echinopogon mckiei	*Einadia nutans*
Elymus scaber	*Epilobium billardierianum* subsp. *cinereum*
Eucalyptus blakelyi	*Eucalyptus dalrympleana* subsp. *heptantha*
Eucalyptus nova-anglica	*Euchiton gymnocephalus*
Geranium solanderi	*Glycine clandestina*
Gonocarpus micranthus	*Gonocarpus tetragynus*
Haloragis heterophylla	*Hibbertia cistoidea*
Hybanthus monopetalus	*Hydrocotyle laxiflora*
Hypericum gramineum	*Hypoxis hygrometrica* var. *splendida*
Juncus filicaulis	*Juncus subsecundus*
Juncus usitatus	*Kunzea parviflora*
Lachnagrostis aemula	*Lachnagrostis filiformis*
Leptorhynchos squamatus subsp. *squamatus*	*Lespedeza juncea* subsp. *sericea*
Leucopogon fraseri	*Lissanthe strigosa*
Lomandra multiflora subsp. *multiflora*	*Luzula densiflora*
Melichrus urceolatus	*Mentha satureioides*
Microlaena stipoides var. *stipoides*	*Olearia viscidula*
Opercularia aspera	*Oxalis exilis*
Oxalis perennans	*Oxalis radicosa*
Phyllanthus virgatus	*Pimelea curviflora* var. *divergens*
Pimelea glauca	*Plantago gaudichaudii*
Plantago hispida	*Poa labillardieri*
Poa sieberiana	*Poranthera microphylla*
Pteridium esculentum	*Pultenaea microphylla*
Rhodanthe anthemoides	*Rubus parvifolius*
Rumex brownii	*Schoenus apogon*
Scleranthus biflorus	*Solenogyne dominii*
Sorghum leiocladum	*Sporobolus creber*
Stackhousia monogyna	*Stellaria angustifolia*
Stylidium graminifolium	*Swainsona parviflora*
Themeda australis	*Veronica calycina*
Veronica plebeia	*Viola betonicifolia*
Vittadinia cuneata	*Vittadinia muelleri*
Wahlenbergia communis	*Wahlenbergia planiflora* var. *longipila*
Wahlenbergia planiflora var. *planiflora*	*Wahlenbergia queenslandica*
Wahlenbergia stricta subsp. *stricta*	

How can I identify an area of New England Peppermint Woodland?

The following is a list of key characteristics to help identify areas of New England Peppermint Woodland.

- Is the site in the New England Tableland Bioregion?
- Is the vegetation an open grassy forest or woodland with sparse or no shrubs?
- Does the tree layer contain mainly New England Peppermint?

If you answer yes to the above questions, the area is likely to consist of New England Peppermint Woodland. Where difficulties arise with decisions on whether particular sites are New England Peppermint Woodland, expert advice may be needed.

What does this mean for my property?

As a listed EEC under the *Threatened Species Conservation Act* 1995, New England Peppermint Woodland has significant conservation value and some activities may require consent or approval. Continuation of routine agricultural practices such as sustainable grazing is allowed. Please contact the Department of Environment, Climate Change and Water for further information.

Determining the conservation value of remnants

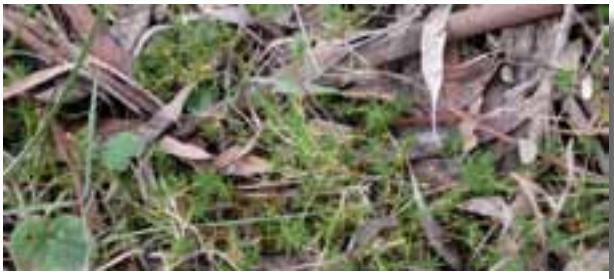
The degree of disturbance (i.e. condition) of many remnants can vary, from almost pristine to highly modified. It is important to note that, because nearly all of this community has been destroyed, even small patches or areas that have had past disturbance such as selective logging, fire, dieback or grazing may be important remnants of New England Peppermint Woodland and would still represent the EEC. Where difficulties arise when faced with decisions on whether particular sites are New England Peppermint Woodland, expert advice may be needed.

Retaining mature native vegetation or EECs for conservation purposes may attract incentive funding. Funding is allocated to landholders by the local Catchment Management Authority (CMA) according to the priorities set out in their Catchment Action Plan and strategies. For more information contact your local CMA or email: info@nativevegetation.nsw.gov.au

New England Peppermint Tree foliage Photograph: P Richards

New England Peppermint Woodland Photograph: P Richards

Snow grass Photograph: P Richards



Scleranthus biflorus *Photograph: P Richards*

For further assistance

This and other EEC guidelines are available on the DECCW website at threatenedspecies.environment.nsw.gov.au/tsprofile/home_tec.aspx or www.environment.nsw.gov.au/pnf/eecfielddidguidelines.htm

The resources listed below also provide information on NSW plants, native vegetation and EECs.

- Botanic Gardens Trust plant identification assistance: www.rbgsyd.nsw.gov.au/plant_info/identifying_plants/
- Department of Environment, Climate Change and Water threatened species profiles: www.threatenedspecies.environment.nsw.gov.au/tsprofile/home_species.aspx
- Information on bioregions of New South Wales: www.environment.nsw.gov.au/bioregions/Bioregions.htm
- NSW Scientific Committee Determinations: www.environment.nsw.gov.au/committee/ListofScientificCommitteeDeterminations.htm
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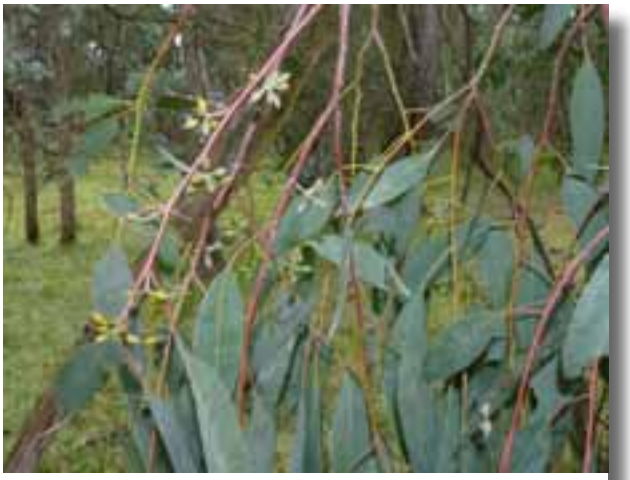
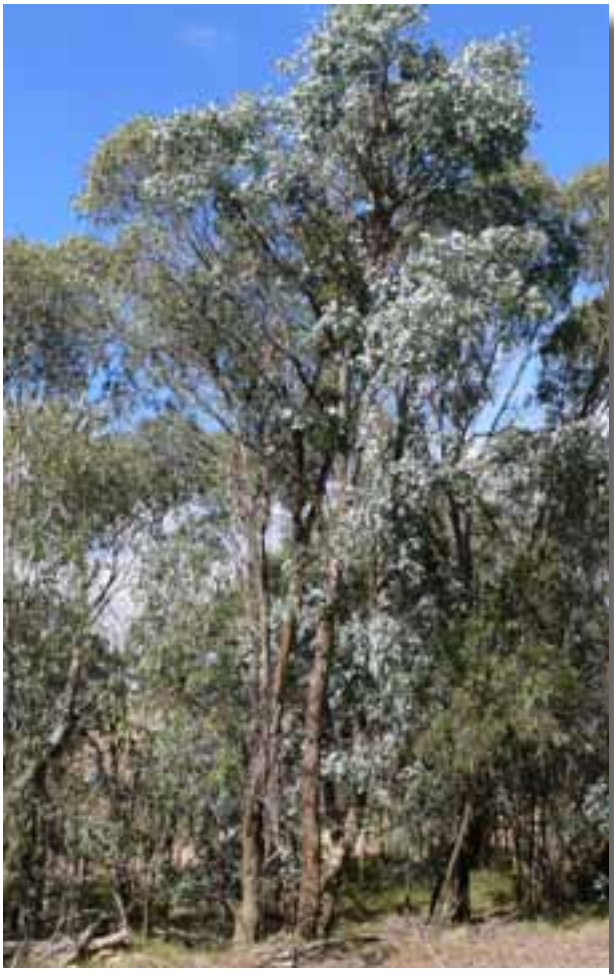
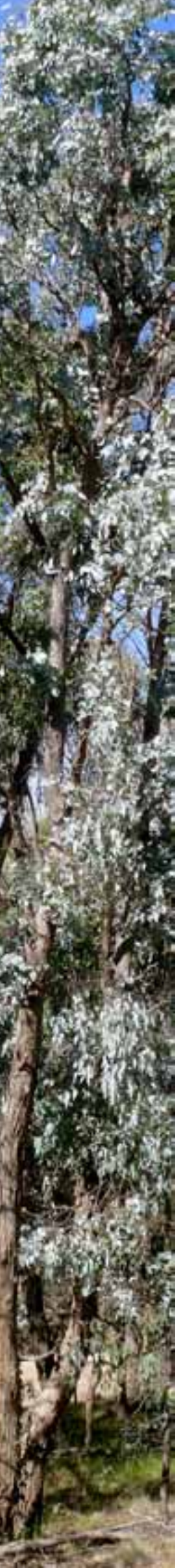


New England Peppermint Tree buds Photograph: P Richards

New England Peppermint Tree fruits Photograph: P Richards



New England Peppermint Tree Photograph: P Richards



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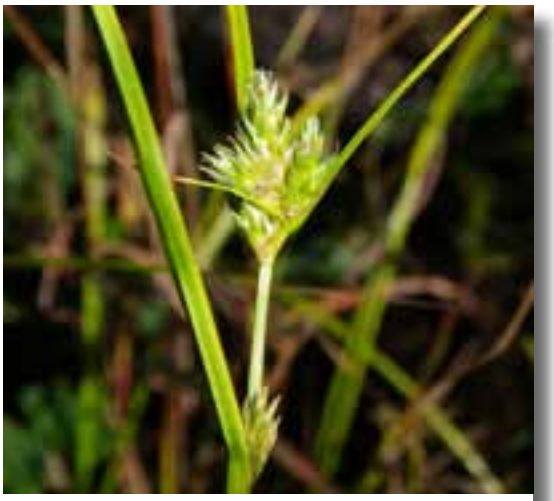

Carex inversa *Photograph: L Copeland*

Wahlenbergia communis *Photograph: L Copeland*

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