



COMMUNITIES FOR COMMUNITIES

Issue 4: June 2006



Update on ecological communities for March 2006 to June 2006

New Listing

White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grasslands

The White Box-Yellow Box-Blakely's Red Gum Grassy Woodlands and Derived Grasslands ecological community has recently been listed as critically endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This is the first broadscale ecological community listing under the new approach ([see article in Issue 2](#)).

The new approach takes into consideration the impact of degradation and regional variation in widespread ecological communities through the use of conditions classes. This means that only areas of Box-Gum Grassy Woodlands and Derived Grasslands that are in good condition trigger the protection provisions of the EPBC Act. While significantly degraded areas of vegetation are no longer part of the listed ecological community, this does not mean they are unimportant. A second condition class has been identified that represents areas that would respond to rehabilitation efforts. These areas may be eligible for funding through programmes such as the Natural Heritage Trust (NHT).

More information on how condition classes apply to Box-Gum Grassy Woodlands and Derived Grasslands, and other information on the ecological community can be found at: www.deh.gov.au/box-gum

More information on the new approach can be found at: www.deh.gov.au/epbc/publications/pubs/ecological-communities-listing-approach-factsheet.pdf

Box-Gum Grassy Woodlands and Derived Grasslands were formerly widespread along the western slopes and tablelands of the Great Dividing Range, throughout southern Queensland, NSW, the ACT and Victoria. Less

than 5% remains in good condition and much of this occurs in small isolated patches.

More than 400 native plant species have been recorded as occurring within the ecological community which also provides habitat for a large number of animals, including rare and threatened species such as Superb Parrots, Regent Honeyeaters and Squirrel Gliders.

Awareness of the plight of this ecological community is increasing as community groups and landholders get together to conserve and rehabilitate patches of Box-Gum Woodlands and Derived Grasslands. More than \$3,500,000 from the Australian Government's Natural Heritage Trust (NHT) has been spent on projects to manage, conserve and rehabilitate patches of Box-Gum Woodlands and Derived Grasslands. One of the NHT-funded initiatives has been the establishment of Conservation Management Networks (see article in Issue 3). Two networks have been set up in NSW and the ACT to support landholders and community groups in the management of their land and to share knowledge and to provide a link between researchers, government and land managers.

Listing of the Box-Gum Woodlands and Derived Grasslands under the EPBC Act does not prevent land managers from continuing to use their land in the same way they were before the EPBC Act came into effect, provided they have not changed or intensified their activities. Landholders wishing to undertake activities that are likely to have a significant impact on a listed ecological community must seek approval by making a referral under the EPBC Act.

Further information on referrals, assessments and approvals can be found at: <http://www.deh.gov.au/epbc>

Nominations open for public comment

New nominations for threatened ecological communities to be considered by the Threatened Species Scientific Committee are available on the Department's web site and are open for public comment. Information on current nominations is available at: www.deh.gov.au/biodiversity/threatened/communities/index.html

Technical Workshop for New England Tablelands Woodlands

In July 2005 the Department held a technical workshop in Armidale NSW. The focus of the workshop was three nominated ecological communities which were:

- New England Peppermint (*Eucalyptus nova-anglica*) Woodlands on Sediment on the Northern Tablelands;
- New England Peppermint (*Eucalyptus nova-anglica*) Woodlands on Basalt on the Northern Tablelands;

and

- Ribbon Gum (*Eucalyptus viminalis*) – Mountain Gum (*E. dalrympleana* subsp. *heptantha*) – Snow Gum (*E. pauciflora*) Open Forest – Tall Open Forest with a Grassy Understorey on Basalt on the NSW Northern tablelands.

The aim of the workshop was to produce definitions and descriptions of the nominated ecological communities and to define condition thresholds. The workshop defined two national ecological communities for assessment: the New England Peppermint Woodland and the Ribbon Gum-Mountain Gum-Snow Gum-Black Sallee Woodlands on Basalt.

New England Peppermint Woodlands

The New England Peppermint Woodlands ecological community brings together two of the original nominations, for the woodlands on basalt and on sediments, and includes a third woodland type that had not been nominated for listing - 'New England Peppermint-Snow Gum Open Forest on Granite and Leucogranite'. The workshop considered it appropriate to combine all three because:



New England Peppermint woodland - H Mills

(inset) Fringe Lily - P Komidar

- all three are threatened;
- all three have New England Peppermint (*Eucalyptus nova-anglica*) as a dominant or co-dominant overstorey species;
- the three woodlands types intergrade; and
- stakeholders will not need to identify the soil type a patch is on in order to determine whether or not it is part of the listed ecological community.

The ecological community occurs in the tablelands of northern NSW and southern Queensland, in the New England Tablelands Bioregion and the western-most parts of the NSW North Coast Bioregion.

Ribbon Gum-Mountain Gum-Snow Gum-Black Sallee Woodlands on Basalt

In defining the second ecological community for assessment, the workshop participants combined the remaining nominated community with another woodland type that had not been nominated for listing - 'Snow

Gum-Black Sallee Forest'. It was decided that the two forest types were sufficiently similar, in terms of understorey composition, to be assessed as a single ecological community, restricted to basalt-derived soils.

The defined ecological community has a tree canopy dominated or co-dominated by one or more of Ribbon Gum (*Eucalyptus viminalis*), Mountain Gum (*E. dalrympleana* subsp. *heptantha*), Snow Gum (*E. pauciflora*) or Black Sallee (*E. stellulata*). It occurs on basalt soils on the tablelands of the Great Dividing Range, between the Hunter Valley and the Queensland border. Whilst there may be a number of small occurrences of the ecological community in Queensland, basalt soils are largely restricted to New South Wales.

The outcomes of this workshop are available on the Department's web site and can be accessed at:

www.deh.gov.au/biodiversity/threatened/nominations/pubs/new-england-peppermint-report.pdf

and

www.deh.gov.au/biodiversity/threatened/nominations/pubs/ribbon-mountain-snow-gums-report.pdf

Technical Workshop for the Murray Valley Grassland of the Riverina Bioregion

A technical workshop was held in Deniliquin in February 2006 to obtain expert opinion on the nature, extent and condition of the nominated Murray Valley Grassland of the Riverina Bioregion ecological community.



Natural temperate grassland -H Mills

(inset) Bluebush - H Mills

The Murray Valley Grassland of the Riverina Bioregion is a type of natural temperate grassland that occurs from the south-western plains of NSW into the Northern Plain of Victoria. Whilst most grasslands are superficially similar, closer inspection reveals great variability in their composition across the Riverina. This variability is due to many natural and management influences, including the underlying soil types and the effects of grazing and past landuse.

Riverina grasslands are distinct from other temperate grasslands in their divergence from having Kangaroo Grass (*Themeda*) as the dominated species to a predominance of species of Windmill Grass, Plains Grass, Speargrass and Wallaby Grass (*Austrostipa*, *Austrodanthonia*, *Chloris* and *Enteropogon*). The spaces between

the grass tussocks are occupied by a range of colourful herbs, many from the lily, daisy and chenopod families. The ecological community provides habitat for a number of threatened plant and animal species, including the Winged Peppergrass (*Lepidium monoplocoides*), Slender Darling Pea (*Swainsona murrayana*), Plains Wanderer (*Pedionomus torquatus*) and the Striped Legless Lizard (*Delma impar*).

Workshop participants agreed that the NSW and Victorian components of the Riverina Bioregion shared similar climatic, soil and floristic characteristics. However, data presented at the workshop demonstrates floristic differences between the northern component of the Bioregion and the southern NSW and Victorian component of the Bioregion. Experts proposed that due to these floristic differences and differing levels of threat, the area of the nomination be split into two distinct ecological communities; Northern Riverina Bioregion Grasslands and Southern Riverina Bioregion Grasslands. The geographic boundary between these two areas is yet to be determined, but is likely to follow the northern boundary of the Murray Catchment Management Authority (CMA).

The outcomes of this workshop are open for public comment and available at: www.deh.gov.au/biodiversity/threatened/nominations/pubs/murray-valley-grassland-report.pdf

Littoral Rainforest and Vine Thickets of Eastern Australia

A technical workshop was held in Port Macquarie in September 2005 to obtain expert opinion on the nature and extent of Littoral Rainforest ecological communities. The workshop was based on a nomination for Mixed Microphyll/Notophyll Vine Thickets on Beach Ridges on Quaternary Coastal Dunes and Beaches in South Eastern Queensland.



Sea Acres Nature Reserve - S Maas

(inset) *Pandanus* - S Maas

Workshop participants found that the national ecological community actually extended in a north-south direction along the east coast of Australia (Qld, NSW and Victoria). In order to reflect the broader distribution of the ecological community in Australia, workshop participants considered that the term 'Littoral Rainforest and Vine Thickets of Eastern Australia' provides consistency across jurisdictions as well as ecological distinction from other rainforest types. This name was adopted for the nominated ecological community.

The Littoral Rainforest and Vine Thickets of Eastern Australia ecological community occurs along the eastern coastline of Australia in the Cape York Peninsula, Wet Tropics, Central Mackay Coast/Central Queensland, Brigalow Belt North, South Eastern Queensland, NSW North Coast, Sydney Basin and South East Corner Bioregions.

Littoral rainforests are a salt-hardy rainforest association that is naturally limited in extent and distribution. The ecological community is confined to coastal sites where the unusual conditions of fire-protection, high available moisture, available nutrients and free drainage coincide. It is typically found within 2 km of the sea or a large salt water body such as an estuary and is adapted to strong winds with a high salt content, with the canopy protecting less tolerant species and propagules in the understorey.

Characteristic plant species vary according to latitude and are also dependant to a degree on natural elements including substrate and nutrient inflow. Although the plant species occurring in this ecological community is diverse, a number of species are characteristic. These include Tuckeroo (*Cupaniopsis anacardioides*), Ebony (*Diospyros spp*), Yellow Tulip (*Drypetes deplanchea*), Canthium (*Canthium spp.*), Sandpaper Fig (*Ficus opposita*) and Small-leaved Fig (*Ficus obliqua*).

Littoral rainforests are crucial for providing a continuous food supply to fruit-eating species and are also significant refuge areas for migratory and nomadic birds including the Coxen's Fig Parrot (*Cyclopsitta diophthalma coxeni*) and the Double-eyed Fig Parrot (*Cyclopsitta diophthalma*).

The outcomes of the technical workshop are open for public comment and are available at: www.deh.gov.au/biodiversity/threatened/nominations/pubs/eastern-littoral-rainforest-report.pdf

Key Threatening Processes

What are Key Threatening Processes?

The EPBC Act protects nationally threatened plant and animal species and ecological communities. One way it does this is through the listing of key threatening processes. A process is defined as a key threatening process if it threatens or may threaten the survival, abundance or evolutionary development of a native species or ecological community.

A process can be listed as a key threatening process if it meets one or more of the following criteria:

- it could cause a native species or ecological community to become eligible for listing as threatened (in

any category other than conservation dependent); or

- it could cause an already listed threatened species or threatened ecological community to become eligible to be listed in another category representing a higher degree of endangerment; or
- it adversely affects two or more listed threatened species (other than those listed as conservation dependent) or threatened ecological communities.

When a key threatening process is listed under the EPBC Act, a decision is also made on whether a national threat abatement plan should be developed and put in place. Threat abatement plans allow for research, management, and any other actions necessary to reduce the impact of a listed key threatening process on native or threatened species or ecological communities. More information on key threatening processes can be found on the Department's web site at: www.deh.gov.au/biodiversity/threatened/ktp/index.html

Predation by exotic rats on Australian offshore islands listed as a key threatening process

'Predation by exotic rats on Australian offshore islands of less than 1000 km² (100,000 ha)' was listed as a key threatening process in March 2006.

The Black Rat, the Brown Rat and the Pacific Rat are introduced exotic species that inhabit many of Australia's offshore islands. The Black Rat is the most widespread of the three exotic rat species and all are recognised predators of Australian native wildlife. These three rat species have been recorded on at least 95 Australian offshore islands of less than 1000 km².

Exotic rats are opportunistic feeders; their diet at any one time generally reflects the availability of food in their environment. They eat both plant and animal matter all year round and are able to utilise a diverse range of food sources to facilitate colonisation of different environments. They are known to prey primarily on birds, small mammals, tortoises, lizards, large insects, land molluscs and plant seeds. In addition to their impact as predators, exotic rats may also exert an influence as competitors for limited food sources.

The presence of exotic rats on Australian offshore islands can have a more significant impact than on mainland Australia, due to the unique biodiversity and vulnerability of these island ecosystems.

Along with the listing of this key threatening process, a threat abatement plan will be developed to provide for coordination of current and future activities related to controlling the impacts of exotic rats. More information can be found on the Departments web site at: www.deh.gov.au/biodiversity/threatened/ktp/pubs/island-rats.pdf

News from around Australia

Woodland Watch: Protecting biodiversity in Western Australia's wheatbelt

Chris Curnow

Woodland Watch is a field-based conservation initiative, which recognises good woodland stewardship by farmers and other land managers, and promotes 'best-practice' woodland management. It is an initiative of WWF Australia and is funded through the Australian Government's Natural Heritage Trust.



Western Australia's Wheatbelt - C Curnow

(inset) Woodland Watch activities at 'Muntagin' - C Curnow

Historically, agricultural clearing in Western Australia's wheatbelt has placed significant environmental stress on some of the country's most biologically-rich woodlands. Salinity, rising watertables, uncontrolled grazing by domestic livestock and invasion of feral species has caused the area's woodlands to degrade through altered nutrient balances, competition and lack of natural regeneration. With less than three per cent of this valuable woodland left, it is crucial that effective woodland management is adopted by those that own and manage woodland remnants.

The good news is that a growing number of landholders in the wheatbelt are joining WWF's five-year-old Woodland Watch program to better protect and manage the area's remaining woodlands. A series of strong community partnerships formed under the Woodland Watch program is helping communities to manage woodlands under private ownership for the benefit of the area's rich ecology and long-term productivity. The discovery of thirty new native plant species, 28 new populations of rare or endangered plants and significant range extensions for at least 20 species during annual flora surveys conducted in WA Wheatbelt woodland remnants over the last five years, confirms that these temperate woodlands are among the most biologically diverse ecosystems in Australia.

The Woodland Watch program is now a leading delivery agent for two WA regional NRM groups. Both the Avon Catchment Council (ACC) and the Northern Agricultural Catchment Council (NACC) have chosen the project as a key delivery agent to achieve regional conservation outcomes as set by their respective Regional NRM Strategies. These regional conservation outcomes will expand beyond current woodland priorities to include other high priority ecosystems, and Woodland Watch is poised to assist in achieving further long-term private commitment to a broader suite of priority ecosystems.

Building on the successful model established by Woodland Watch over the last five years, new financial incentives funded through regional investment plans will be offered through a targeted grants scheme designed to encourage landholders with priority ecosystems into long-term conservation agreements, such as legal perpetual covenants on land title. The project aims to conserve the environmental integrity of WA's wheatbelt, which is considered globally as a biodiversity hot spot.

Upcoming events

Joint conference of the New Zealand Ecological Society and the Ecological Society of Australia



Ecology Across the Tasman
2006 Wellington – 28 August to 1 September

A joint conference of the New Zealand Ecological Society and the Ecological Society of Australia will be held in Wellington, New Zealand from 28 August to 1 September 2006. *Ecology Across the Tasman 2006* will enable people of all sectors of ecology to interact and exchange information and discuss current and envisioned developments in ecology. A four day scientific programme is planned, with opportunity for participants to offer papers or symposia on topics of their choice. There will also be exhibitions, social events and field trips to some of Wellington's distinctive ecological attractions, including Karori Wildlife Sanctuary, Matiu Somes Island and Kapiti Island.

An additional special symposium, *Restoring Australasia*, is sponsored by Victoria University, Massey University and Karori Wildlife Sanctuary. It seeks to highlight how the science of restoration ecology is being used to underpin ecological restoration in Australia and New Zealand, compare ecological restoration practice in the two countries, and identify potential areas for trans-Tasman collaboration. Presentations for inclusion in this symposium are invited.

Further information on the conference program, submission of papers, registration and field trips can be found at: <http://www.vuw.ac.nz/ecology06/index.html>