



## August 2015 Edition 23

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### Latest news from the REC

- REC Executive Officer Neil Dufty recently presented at a conference for local council works staff run by the Institute of Public Works Engineering Australasia (IPWEA). Mr Dufty spoke about ways to resolve the issue of road safety requirements such as clear zones with the environmental protection of roadside corridors.
- The REC visited the Murray region for its August meeting (see article below). The meeting was hosted by Murray Local Land Services and included presentations, and a fieldtrip to a variety of roadside and TSR sites.

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## Murray Local Land Services hosts August REC meeting

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Murray Local Land Services was pleased to host the NSW Roadside Environment Committee meeting in Albury on 10 and 11 August 2015. Committee members got to hear about and see the wide range of successful partnerships and projects being delivered on roadsides and travelling stock reserves (TSRs).

Key highlights and reflections from the tour and meeting included recognition of the:

- i. Immense value and history of the linear reserve network including roadsides and travelling stock reserves for pathways and connectivity across the landscape.
- ii. Challenges for public land managers to manage linear reserves with competing interests, in particular balancing productive, conservation,

- social and cultural values and uses of TSRs which receive no core funding to support management other than grazing permits.
- iii. Impressive outcomes for both biodiversity enhancement and productivity by actively managing grazing of reserves through use of travelling stock – a win for both the livestock owners and the environment.
  - iv. Incredible partnerships and goodwill of so many key stakeholders working together, sharing knowledge and delivering projects including the Noxious Weeds Advisory Committees, Local Government, Local Land Services, Office of Environment and Heritage, Roads and Maritime Services and other agencies.
  - v. Need to continue to invest in the capacity and skills of land managers and contractors in accessing current information and best practice advice on linear reserve management.

Projects showcased included:

- **Red Guide Post Campaign** – a comprehensive cross local government project helping land managers work together to stop the spread of noxious weeds by alerting road users and roadside workers to areas of noxious weed infestation.
- Murray Local Land Services – **‘Connected Corridors Project’** funded by the Australian Government’s National Landcare Program and NSW Catchment Action to improve native vegetation connectivity in the central Murray region - supporting revegetation, environmental weed control and active management of native vegetation on both private and public land.
- **More than just a long paddock** – managing biodiversity on TSRs in the NSW Riverina – an Australian Government funded project on TSRs in the Murray and Riverina LLS that is improving the biodiversity outcomes of over 8000ha and 60 TSR sites by direct seeding understorey; controlling environmental weeds; reducing invasive pests including rabbits, foxes and Noisy Miners, and utilising strategic grazing with travelling stock to actively manage and improve sites.
- Award-winning **“Roadside Vegetation Implementation Project- Linking, Thinking and Acting: Roadside Vegetation in the Murray Catchment”** – a regional project involving 12 councils and a range of projects to increase awareness of the value of roadside vegetation through Council staff and contractor training, signage, developing Murray Roadside Management Guidelines; on-ground works including enhancement through direct seeding of 142km of medium conservation value roadsides and environmental weed control completed for 180ha of roadsides to control carpet weed (*Galenia pubescens*).

Source: Murray LLS media release

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### **Lachlan region Roadside Vegetation Management Plan project pays off**

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A project to support the development of Roadside Vegetation Management Plans (RVMPs) in the Lachlan catchment has given invaluable support to local Councils in the preservation and protection of these important areas of remnant bushland.

Central Tablelands Local Land Services (formerly the Lachlan Catchment Management Authority) has worked with 12 local Shire Councils since 2008 to implement RVMPs, to highlight the importance of maintaining the roadside environment, while dealing with competing demands such as road construction, recreational use, bushfire management, weed control, and road safety.

"It's not an easy job to sift through the multiple Acts that impose rules and regulations on how we manage the roadside reserves and crown land under local government authority," said Brian Parker from Blayney Shire Council.

"The advice and support we have received to develop these RVMPs has been extremely helpful, and we have saved money by implementing work practices that also achieve better environmental outcomes."

The Lachlan CMA worked with councils to create an RVMP template, helped fund the completion of biodiversity audits, and organised a series of Roadside Management training workshops to assist in the development of RVMPs.

At this time the Lachlan CMA was the only funding source providing support to councils to develop or update these plans.

Central Tablelands Local Land Services brought the project to a conclusion by employing a consultant to work with smaller councils to finalise and implement their RVMP's.

All of the councils involved in the project now have RVMPs in operation, ensuring the protection and preservation of valuable bushland and native plant species that line the vast network of public roads across the Lachlan region.

For more information contact Senior Land Services Officer, Casey Proctor on 02 6341 9318 or email: [casey.proctor@lls.nsw.gov.au](mailto:casey.proctor@lls.nsw.gov.au)



*Council staff attended an RVMP training workshop in Hillston in 2012*

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### **Coolatai Grass management in an urban roadside environment**

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Coolatai Grass (*Hyparrhenia hirta*) is a native of tropical and temperate Africa, Mediterranean Europe, and areas of west Asia. In NSW it is generally known as Coolatai Grass after the area where it was introduced from South Africa as a pasture grass in the 1890s.

Coolatai Grass is a long lived summer active perennial that forms dense tussocks and grows to 1.5m in height. It is extremely drought resistant, can make growth on small falls of rain, is well adapted to fire, can flower within 90 days of germinating, and grow in a wide range of soil types. It is one of the most serious threats to fragmented areas of native ecosystems and also invades relatively undisturbed ecosystems.

Strathfield Local Government Area in suburban Sydney covers an area of approximately 26 square kilometres. Within this area, there are a number of major transport corridors that run parallel or crisscross including Parramatta Road, Centenary Drive/Homebush Bay Drive, the M4 motorway, the Western train line, and the rail freight line that goes to the Chullora Rail Yards and the Enfield Interlogistics Centre.

Apart from an isolated minor occurrence on a resident's nature strip, Coolatai Grass in Strathfield occurs at its western boundary where Centenary Drive crosses the Western rail line, Parramatta Road and the M4 corridor. The outbreak is disbursed on Council land, Roads and Maritime Service (RMS) managed land, and NSW Railcorp property. Coordinating an adequate response to the outbreak has been difficult but a recent success is reported below.

As a result of new medium density development on its western boundary, Council staff have made major headway in removing Coolatai Grass from areas within its control. However, a heavily infested area nearby could not be safely accessed, which lead to liaison with the RMS to clarify whether the responsibility for control lay with them. Within the Sydney basin, the RMS has outsourced the maintenance services of their state road network and roadside assets to third parties. The state road assets located with the Strathfield Local Government Area are largely managed by the Leighton Boral Amey joint venture (LBA). In the area concerned, Marsupial Landscape Management is engaged by LBA to undertake vegetation control and maintenance.



*Marlborough Road Coolatai pre treatment*

In the process of seeking to outsource the road stewardship service, the RMS sought innovative methods. Leighton Boral Amey and Marsupial Landscape Management have been able to demonstrate innovative roadside vegetation management including the use of GPS tracking and recording of site specific vegetation services.



Strathfield Council officers met with staff from Marsupial Landscape Management to ensure the scope of work was understood and that any apparent site constraints that may impact the quality of the work could be discussed. For example, initial works were undertaken at night as low traffic volume was an important consideration.

This site has now been placed on a maintenance schedule for monthly visits until the Coolatai Grass is eradicated. Upon each service, a site report will be sent to stakeholders including Council, LBV and RMS.

In a limited resource environment, ongoing liaison and engagement between these stakeholders will be critical to achieve successful management of Coolatai Grass in Strathfield. It is hoped the positive momentum from this cooperation will also assist with engaging other landholders who have Coolatai Grass in the vicinity.

More details from Alex Mackenzie, Strathfield Council, phone (02) 9748 9651

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### **Collaboration for the Conservation of the Small Purple-pea**

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John Holland Rail Pty Ltd (JHR) as an approved "Rail Infrastructure Manager" under contract from the New South Wales Government Transport for NSW (TfNSW) Country Rail Contracts (CRC) operates and maintains the Country Regional Network (CRN). The CRN comprises over 5,000 kilometres of operational and non-operational rail line.

JHR is collaborating with the NSW Office of Environment and Heritage (OEH) to conserve a number of Small Purple-pea (*Swainsona recta*) populations found at the Tralee rail easement (Tuggeranong and Bombala rail line). The Small Purple-pea is listed as Endangered under NSW, ACT, Victorian and Commonwealth legislation.



*Small Purple-Pea*

One of the management issues associated with the Tralee Small Purple-pea population is the risk of erosion to the cutting ridge of which the Small Purple-peas are growing on.

Cutting stabilisation works have been undertaken with guidance of OEH. The works were constrained by working at heights and difficult access for plant and materials. Given the sensitive nature of the site it was determined that

engineering a retaining wall or undertaking reshaping of the cutting ridge would pose an unacceptable risk to the Small Purple-pea population. As such, staked coir logs were employed to stabilise the eroding cutting edge. Given the coir logs were light weight and could be manipulated around the uneven eroding edge, it was deemed the most practical method to eliminate heavy machinery use and disturbance to individual Small Purple-pea plants. Approximately 50m of cutting was stabilised and to date there has been no further loss of plants of the edge.

The conservation project has cost \$19,938 and was fully funded by TfNSW CRC. The conservation works have been recognised by OEH and feature in a recovery program video on the Saving our Species video gallery.

Source: <http://www.environment.nsw.gov.au/savingourspecies/sosvideos.htm>

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### **Tackling Invasive Woody Weeds in Tamworth LGA**

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Tamworth Regional Council (TRC) Noxious Weeds Unit, working under the NSW Weed Action Plan [WAP], recently nominated several high risk pathways within the Tamworth LGA that are considered most at risk for the spread of both noxious weeds and non-native invasive species. These pathways are mainly high use roads and highways, stock routes, railways and major watercourses, which all have the potential of weed distribution through the movement of machinery, stock and water.

TRC Senior Weeds Officer, Steve Geddes approached North West Local Lands Service [NWLLS] regarding the possibility of forming a partnership to commence a project that would involve the removal of invasive non-native plants from a nominated high risk pathway.

NWLLS responded by approving funding for a program for the removal of invasive non-native woody weed species from a high profile high risk pathway to enhance the existence of native species through less competition.

The high risk pathways selected for the project are the main road from the Tamworth LGA border with Gwydir LGA north of Barraba through Manilla to Tamworth and from the Tamworth LGA border with Liverpool Plains LGA at Currabubula on the Werris Creek Road. Both roads have a high movement of vehicles and machinery in and out of the Tamworth LGA as well as being stock routes.

The declared noxious weeds on both of these roads are of a low density due to continued annual control by TRC weeds staff and NWLLS field staff, but invasive non-native species including African Olive, Pistachio, Centaury Plant, Firethorn, Pyracantha, Cotoneaster, Feral Fruit Trees and the recently declared noxious weed Honey Locust, are of a medium to high density in some areas along these roads.

The TRC weeds unit has commenced a three year program to remove these plants with work started on Honey Locust control north and south of Barraba, Pyracantha between Manilla and Attunga, and African Olive and Centaury plant from Tamworth to Duri. From September, work will commence on the remaining identified species. It is envisaged that by Autumn 2016, these plants will be back to a low density mainly new seed germination which will be controlled annually in conjunction with the required noxious weed control program. The end result gives

a high profile site extending over two main roads with wide corridors containing many native species that will have less competition from invasive species.

Steve Geddes considers this to be an excellent example of two agencies [TRC and NWLLS] forming a partnership to achieve a result in protecting our native environment, and restricting the movement of invasive plant species. Discussions are currently underway to add further pathways this project in the near future.



*Honey Locust being controlled in linear reserves at Barraba*

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## **2015 NSW Landcare and Local Land Services Conference**

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The 2015 NSW Landcare and Local Land Services Conference will be held from the 1-3 September, at Turners Vineyard in Orange, NSW. The Conference is being hosted by Landcare NSW and Central Tablelands Local Land Services, and is being coordinated in partnership with local Landcare and community groups and the Department of Primary Industries.

This conference is the premier event to showcase sustainability, Landcare and volunteering across NSW and includes the annual Landcare Muster and the NSW State Landcare Awards.

Don't miss this chance to gather with around 300 people from Landcare and community groups, farmers, Aboriginal groups, industry and government representatives from across NSW and Australia.

The theme for the Conference is 'From the Ground Up' – Celebrating the International Year of Soil. Conference topics will focus on the environment and

sustainable natural resource management and will include sustainable agriculture, community, building Landcare/succession and Governance.

Source: [www.nswlandcareconference.com.au](http://www.nswlandcareconference.com.au)

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### **Squirrel Glider Nest Boxes and Habitat Feed Trees at Bendick Murrell**

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March was a productive month for the signature Environmental Squirrel Glider Project. March saw the installation of another 30 nest boxes that were constructed by the Cowra Men's shed. This has bolstered nesting habitat in the rail corridor at Bendick Murrell in addition to the 30 nest boxes constructed by the Young Men's Shed and installed in February.

Monitoring of the nest boxes has commenced by Mid Lachlan Landcare and there is evidence that the boxes have been investigated by arboreal marsupials given the accumulation of debris in the boxes.

Seedlings of native nectar feed shrubs are well underway at Weddin Community Native Nursery in Grenfell. The seeds from almost twenty species of native plants (predominately Wattle species) were collected by the Kangarooie Landcare Group from the rail easement and will be planted adjacent to the nest box locations to increase the amount of forage plants for threatened Squirrel Gliders.

The project is considered extremely important in sustaining the local Squirrel Glider population. The Weddin Community Nursery and the volunteers are all very excited to be part of the project. The project involves collaborating with community groups in the Cowra, Young and Grenfell local government areas.



*John Holland Rail's Chris Weston with Mid Lachlan and Young Landcare, Lachlan Valley Tree Services installing a nest box background*

For more details contact Amber Grant, Environment Manager, Country Regional Network on (02) 4028 9409



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## TSRs being leased

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To cover the costs of the Travelling Stock Reserves (TSRs), the Local Land Services, which manages them, has been offering new long-term leases. Others are by the month, and the routes can be leased to move or graze stock.

In the Riverina, the Local Land Services recently called for tenders for annual grazing permits of one to five years, with options to extend, along the travelling stock reserves in Wagga Wagga, Narrandera, and Gundagai.

In places like Walgett, many farmers are leasing paddocks adjoining their own properties, often because they are much greener. In the north-west region of the Local Land Services, about 27 per cent of stock routes are available for lease compared with only 7 per cent in 2011.

Members of the National Parks Association prefer occasional grazing by cattle and sheep on the routes to long-term use by local farmers. Ecologists such as Peter Metcalfe, who has been campaigning to preserve the biodiversity of the stock routes for nearly 25 years, argue that they protect remnant habitat and threatened species.

Mr Metcalfe has sighted rare orchids on the stock routes that are rarely found elsewhere. Because of clearing and fertilisation, many farms no longer contain the same species or biodiversity that flourish in the adjacent stock route. "It is very noticeable in one stock route that runs north-east of Armidale," he says. "In paddocks adjoining there are no wattles, but in the TSR there are at least 10 species of wattles."

The stock routes had survived occasional grazing. "They've been looked after that way for over 100 years, with stock being driven through or grazing, but not staying there and grazing it out. That's the danger of what's happening."

Source: Sydney Morning Herald <http://www.smh.com.au/environment/un-climate-conference/the-traditional-drovers-life-may-soon-die-out-along-with-the-long-paddock-20150604-ghgxcq>

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## More than just a long paddock

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For the past three years the travelling stock reserves (TSRs) in the Riverina have had the benefit of a project aimed at improving the biodiversity of these wonderful and often unique landscape reserves while ensuring they remain open to the public for all permitted and prescribed activities.

The project is called "Enriching biodiversity in the NSW Riverina Bio-region by managing the TSR Network for nature conservation". The project is

funded by Murray Local Land Services and the Australian Government.

To assist with the project, changes in grazing strategies have been employed over the reserves and these subtle adjustments in grazing timing and duration have helped direct seeding works establish. The project also employs a wide range of invasive species control programs to help manage and reduce the range of pests affecting the reserves included in the project.

Unfortunately, all the reserves in the district cannot be included in the project so some 240 assessments were undertaken across the area to help determine reserves for priority and inclusion. The intended outcomes are to improve around 10% of the medium and low conservation value reserves to a higher condition state involving approximately 8,000 hectares.

At present, the project is on target to achieve this result but there are still two years to completion and always another site beckoning for help. Monitoring the project is a simple program of photo points and transects and the regular use of seasonal bird surveys over 80 sites.

There is always room for new methods and technologies and some have been employed in the project already. One new method is controlling Noisy Miner populations where they are recorded as the dominant species within the reserve. Another is the use of long term camera traps to monitor animals moving through sites during control programs and grazing events.

At a little over half way through the five year term of the \$3 million project, the increase in biodiversity is clearly possible and with the continued efforts of the Local Land Services staff, the financial support of the Australian Government and the goodwill of the TSR users success should be achievable.

Source: Murray Local Land Services

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### **Herpetofauna at Risk from Roads**

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Roads can have many detrimental effects on natural habitats and their fauna, ranging from altered microclimate to road kills. Animals which move slowly or are attracted to the road surface are particularly threatened.

Researchers studied herpetofauna road mortality in a Cerrado ecosystem in central Brazil. They sampled 51 km of state roads during 26 days distributed between dry and wet seasons in 2010 and recorded 109 dead individuals of 34 species of amphibians and reptiles. Including animals found alive on the road, they recorded 159 individuals across 39 species (estimated richness: 48). This number represents about 50% of the herpetofauna species richness expected to occur in a Cerrado site in central Brazil based on a concomitant species inventory.

The study indicates that roads can cause high mortality rates for the Cerrado herpetofauna. The authors consider that this problem requires urgent attention since economic growth is largely based on agriculture in the Cerrado and construction of more roads is planned to improve harvest transport.

For the full article go to

<http://www.ingentaconnect.com/content/bhs/thj/2015/00000025/00000003/art00003>

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## Death on the road

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“Perhaps the most fundamental impact we can have on wildlife is killing it. We can be very opinionated on the rights and wrongs of killing animals; for instance, hunting is a very emotive issue. One cause of death of wildlife that we might not think about that much but which has attracted attention from researchers is road traffic (Jaeger et al. 2005, Coffin 2007, Fahrig & Rytwinski 2009). Road kill is one of the commonest causes of death for urban wildlife (Bateman & Fleming 2012) but is also a major cause of death for animal populations in rural or relatively undeveloped areas.

If life gives you lemons, make lemonade. What can road kill tell us about evolution, animal populations, and behaviour?” Bill Bateman & Lauren Gilson (Western WEB blog)

Read on at <http://wwblog.com/2014/12/29/death-on-the-road/>

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## NSW Environmental Trust Grant Programs Now Open

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### Saving Our Species Partnership Grants

The NSW Environmental Trust is inviting Expressions of Interest for Round 2 of its Saving Our Species (SoS) Partnership Grants Program (Expressions of Interest close **28 September 2015**).

Grants are available for partnerships working to secure threatened species in the wild. Round 2 will target landscape-managed species as a priority.

Partnerships can include government, the community, NGOs and industry. A total of \$3.6 million is available for grants between \$300,000 and \$1,000,000 to fund and support coordinated partnerships that will run for 10 years.

Go to the Trust’s website for more information about SoS Partnership Grants and application materials:

<http://www.environment.nsw.gov.au/grants/SOSPPartnerships.htm>.

### Restoration and Rehabilitation Program Grants

The NSW Environmental Trust is inviting applications to the 2015/16 round of its Restoration and Rehabilitation Grants Program (Applications close **18 September 2015**).

A total of \$5.3 million is available to the following organisations for projects working to protect, conserve and restore our natural environment:

- \$2 million for projects by community organisations
- \$2 million for projects by government entities
- \$1.3 million for projects by owners and managers of NSW State Heritage Register-listed properties for environmental works and activities.

Grants of between \$5,000 and \$100,000 are available.

Go to the Trust's website for more information about the Restoration and Rehabilitation Grant Program and to access application materials:

<http://www.environment.nsw.gov.au/grants/restoration.htm>.

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## 20 Million Trees Competitive Grants Round Two

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The Australian Government is seeking applications from eligible groups or individuals interested in undertaking a tree planting project as part of the 20 Million Trees Programme. Applications are invited for projects seeking funding between \$20,000 and \$100,000 (GST exclusive). This is the second 20 Million Trees Competitive Grants Round.

Projects must involve revegetation activities that establish native trees and associated native understorey species. Priority will be given to projects that support nationally listed threatened species and threatened ecological communities.

Applications will be accepted from eligible individuals, landholders, community groups, Indigenous groups, non-government organisations and state, territory and local government agencies.

Projects may occur on public and private land; in urban, peri urban and regional areas across Australia.

### Key dates

Round Two is now open for applications.

Applications open: 7 August 2015

Applications close: 2.00pm AEST (Canberra time) **16 September 2015**

Round Two projects must commence before 30 June 2016 and must be able to be completed by:

- 30 June 2017, for Projects seeking grant funding of \$20,000 to \$59,999 (GST exclusive); or
- 30 June 2018, for Projects seeking grant funding of \$60,000 to \$100,000 (GST exclusive).

More details at <http://www.nrm.gov.au/national/20-million-trees/competitive-grants-round-two>

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## Austral Ecology Special Issue: Ecosystem Risk Assessment

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The Terrestrial Ecosystem Research Network (TERN) connects ecosystem scientists and enables them to collect, contribute, store, share and integrate data across disciplines. Collectively this increases the capacity of the Australian ecosystem science community to advance science and contribute to effective management and sustainable use of our ecosystems.

TERN's Long Term Ecological Research Network (LTERN) has been centrally engaged with the development of a global ecosystem risk assessment protocol. The IUCN developed this protocol to support a global Red List of Ecosystems, analogous to criteria that support the IUCN Red List of Threatened Species. The



IUCN Council formally endorsed the Red List of Ecosystems criteria in mid-2014. By contributing advanced scientific methods and data, LTERN has helped place Australia at the forefront of this important global innovation.

The recent special issue of Austral Ecology showcases the application of LTERN expertise and data in providing detailed risk assessments for a diverse selection of Australia ecosystems from the coast to the central deserts, the tropics to the temperate regions and from the mountains to the sea. In applying the IUCN criteria to these ecosystems, researchers aimed to: (1) identify the defining features of their systems and the processes that threaten them, (2) evaluate trends in key variables relevant to the persistence of the ecosystems, and (3) assess the risk of ecosystem collapse in the 21st century.

It is initiatives such as these, and the data that enables them, that help to position Australia to make intelligent responses to emerging environmental challenges because effectively adapting to environmental change is critical to a healthy, sustainable and prosperous Australia.

LTERN's David Keith is the guest editor of the special issue, which also features articles authored by a number of other TERN users, researchers and collaborators. In addition, much of the research contained in the issue's articles was undertaken at TERN's research sites using our national network of research infrastructure.

The special issue can be accessed here <http://www.tern.org.au/Austral-Ecology-Special-Issue-Ecosystem-Risk-Assessment-bgp3811.html>

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*The aim of this newsletter is to share information about the management of NSW linear reserve environments and profile the NSW Roadside Environment Committee (REC). For more information on the REC, including how to develop roadside vegetation management plans, go to:*

<http://www.rms.nsw.gov.au/about/what-we-do/committees/roadside-environment-committee.html>

*Please contact the REC Executive Officer if you wish to subscribe or unsubscribe.*



NSW  
Roadside  
Environment  
Committee

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