



Roadside vegetation surveys in Western NSW, Spring 2023

Roadside corridors in western NSW retain important areas of native vegetation. These remnants can tell us about the combination of native plants that grow together in particular habitat niches, including trees, shrubs and ground covers.

This spring, botanists from the Remote Sensing and Landscape Science Branch in the NSW Department of Planning and Environment will be surveying selected roadside environments in the Western Lands Division as part of an ongoing effort to classify vegetation communities in the state, known as Plant Community Types (PCTs).

Teams will be working in the Local Government Areas of Cobar, Bourke, Central Darling, Wentworth, Balranald and Brewarrina. For further information about the survey program contact charles.huxtable@environment.nsw.gov.au

Survey data collection is an important component of the Integrated BioNet Vegetation Data program which delivers integrated classification and mapping for NSW biodiversity practitioners and land managers. You can learn more about the program at

<https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/nsw-bionet/integrated-bionet-vegetation-data-for-nsw>



A narrow roadside verge of the Myall Woodland threatened ecological community, north of Collarenebri. In this example, we recorded 48 native species within our standard plot size of 400 square metres using dimensions of 10m x 40m to fit the remnant. Photo: Daniel Connelly/DPE

Contents

Roadside vegetation surveys in Western NSW, Spring 2023	1
Opinion: Compliance pathways for unauthorised clearing of vegetation in road reserves	2
2023 ANET Conference – call for papers	3
Successful launch of NSW Imagery Hub	4
The case for restoring native grasslands to NSW road networks and TSRs.....	5
Glide poles: the great Aussie invention helping flying possums cross the road	6
Biosecurity Alert – Fire Ants	7

Opinion: Compliance pathways for unauthorised clearing of vegetation in road reserves

Road reserves, particularly in rural landscapes, can contain some of the better quality remnant native vegetation in a local context, and are precisely the reason the NSW Roadside Environment Committee and roadside vegetation management plans are established. So, what does your local council or roads authority do when unauthorised clearing takes place in road reserves or public spaces? Where compliance action is pursued, what legislation is relied upon and why?

With an increasing desire to be more present and effective in managing our environmental assets, and in light of increasing concerns about native vegetation on public land (including but not limited to road reserves) being adversely impacted by unauthorised actions, Clarence Valley Council investigated opportunities for the issuing of penalty notices and/or prosecution through common legislation available to NSW councils.

Both the *Local Government Act 1993* (the LG Act) and the *Roads Act 1993* provide opportunities, however the penalties are limited and often not substantial enough to match the severity of the unauthorised action and/or the advantage the offender may have gained from their actions. The LG Act enables issue of a \$220 penalty notice for damage to a tree, and typically no more than six such notices could be issued for a single event/offence even though dozens of trees may be damaged. Conversely, the Roads Act does not even have a penalty notice for failure to obtain a section 138 approval, and if prosecution through a local court is pursued for an offence against the Act, the maximum penalty is 10 penalty units, or \$1100. Again, often not commensurate with the scope of the offence and hence, unlikely to be something a council would pursue given the small potential return relative to effort and legal costs.

Clarence Valley Council consequently resolved last year to put a motion to the NSW Local Government Conference seeking LGNSW to lobby for a review of the penalties under these Acts with a view to making them more relevant to contemporary expectations around protection of the environment and to enable local authorities to more effectively manage their assets. That motion was endorsed at the Conference, though achieving legislative change remains a significant challenge.

No doubt this challenge, and we hope the concern, is shared by most local councils across the state, and we are keen to know whether this is something other councils are successfully tackling. Alternatively, if your council would like to see appropriate penalties available to more effectively manage unauthorised clearing and habitat degradation on public lands, including road reserves, then it would be great if that support could be relayed to LGNSW and/or the NSW Government to add weight to the need for regulatory review.

We are keen to hear from the brains trust! If you have some leads that you would like to share then please contact either myself on phone 6643 0234/email – scott.lenton@clarence.nsw.gov.au or Council's NRM and Projects Coordinator, Reece Luxton, on phone 6641 7241/email – reece.luxton@clarence.nsw.gov.au.

2023 ANET Conference – call for papers



EIANZ and ANET are thrilled to bring you ANET 2023 which will be held at the Te Pae Christchurch Convention Centre on 27 - 29 November 2023.

ANET is the premier event for ecologists, transport planners, regulators, construction and operation professionals, and the local community to engage on the interactions between transportation and ecology. The conference will include two days of technical presentations, posters, panels, workshops and trade displays, and a one-day field trip to Kaikoura.

Call for Papers now open!

Healthy and resilient ecosystems also play a vital role in disaster risk reduction and natural (or 'green') infrastructure can help provide communities and nature with resilience to these hazards. Conversely, poorly located and designed transport infrastructure can exacerbate ecological consequences and cost billions to repair or rebuild following natural disasters. The transport infrastructure we plan, design and build today must both support and promote resilient and functioning ecosystems, and ensure that it can withstand and recover from future shocks. ANET and the Environment Institute of Australia and New Zealand invites professionals, academics and students to submit abstracts for ANET 2023.

Abstracts are invited on the following important questions to be discussed at ANET 2023:

- How do linear infrastructure and transport networks affect the resilience of natural ecosystems to future shocks and stressors?
- How can existing and future infrastructure support and enhance ecosystem health and biodiversity conservation?
- How can transport planning, design, construction and operation assist in the recovery and restoration of endangered species, populations and ecosystems after natural disasters?
- What role does the community play in the planning and design of ecologically-sensitive linear infrastructure, as well as restoration and recovery after shocks and disasters?

If you are interested in submitting a paper or poster or would like to propose a session at the conference, please prepare a brief abstract and submit it via the link below **by Friday 1 September 2023**.

More information and registration details here:
<https://www.eianz.org/events/event/ANET2023>

Successful launch of NSW Imagery Hub

The Spatial Imagery Services Team are thrilled to announce the successful launch of the NSW Imagery Hub for NSW Government agencies.

With an impressive turnout of 421 attendees joining virtually, the webinar served as an enlightening platform to unveil the NSW Imagery Hub's vision, mission and program objectives. It offered comprehensive insights into the diverse range of services the Imagery Hub offers, including access options, training opportunities, and compelling case studies.

Attendees were introduced to a myriad of products available from the Imagery Hub, with the focus of this session being on the NSW Government's subscription to Planet (<https://planet.com/>).

The Imagery Hub will have a direct impact on the monitoring, response, recovery and rehabilitation of natural disaster events. It will help understand long term impacts and changes in landscape after events to inform future actions across NSW.

A link to the recording is here: <https://vimeo.com/847826216>

For more information, contact spatial.imagery@environment.nsw.gov.au



Planet SkySat 50cm tasking - Splendour in the Grass July 2023

The case for restoring native grasslands to NSW road networks and TSRs

Australian road networks are extensive (over 800,000 km). In arid/semi-arid landscapes, native vegetation is common on road verges, however, in arable landscapes, while some are reservoirs for rare native vegetation, most roadsides are dominated by exotic weeds (presenting complex and costly management issues).

By contrast, in the USA, decades of government regulation have created the impetus for road authorities to restore native grasslands (prairies) along vast tracts of roadside, with commensurate biodiversity, management and amenity benefits.

While such foresight and activity has been lacking in Australia, a recently published paper in the journal *Ecological Management and Restoration* titled 'Restored roadside grasslands provide an exciting template for road network conservation (Gibson-Roy & Carland 2023) provides some hope. It describes the outstanding success of two long-term restored Victorian roadside grasslands from a project established in the early 2000s, which applied what were at the time newly developed site preparation, direct-seeding and seed production approaches to replace historic non-endemic roadside block tree plantings with diverse native grassland.

Another key project outcome was its demonstration of the feasibility of reintroducing threatened species as part of those restorations (i.e., Button Wrinklewort, Clover Glycine, Hoary Sunray, Yam Daisy).

Another project feature was the low biomass the restorations produced (~1.3 t per hectare), which was in stark contrast to nearby Phalaris dominated roadsides (~13 t per hectare).

Long-term monitoring of these restorations provided compelling evidence that it is feasible to restore high-quality, low-biomass, species-rich native grasslands on previously exotic-dominated roadsides. These outcomes are equally relevant to NSW and its network of TSRs and rural roads which are currently largely weed dominated or under threat, suggesting that instead they should represent broad canvases for ecological restoration to create extensive corridors of native grassland, displaying biodiversity values, visual amenity, and much reduced maintenance requirements and fuel load attributes.



Left. Direct seeding cleared ex-linear roadside tree planting with native grassland species. Right. Established, species-rich, long-term persistent roadside native grassland

Glide poles: the great Aussie invention helping flying possums cross the road

Next time you're road-tripping along the east coast, keep an eye out for a little-known Aussie invention piercing the skyline: glide poles. For Australia's gliding possums, or gliders, they're the next best thing since tall trees.

These tall timber structures, with timber cross arms near the top, give gliders a way to cross big roads. They can shimmy up a pole on one side of the road and then leap to another (and another) to get to the other side.

After witnessing the earliest experiments with glide poles decades ago, it's heartening to see the design refined and replicated up and down the east coast.

The world's largest gliding marsupial, the greater glider, was listed nationally as endangered a year ago this month. That's because their populations had declined by 80% in just 20 years. As land-clearing and bushfires continue to destroy old growth forests with tall trees and hollows, gliders need all the help they can get.

Glide poles are one of many structures designed to provide safe road crossing opportunities for wildlife.

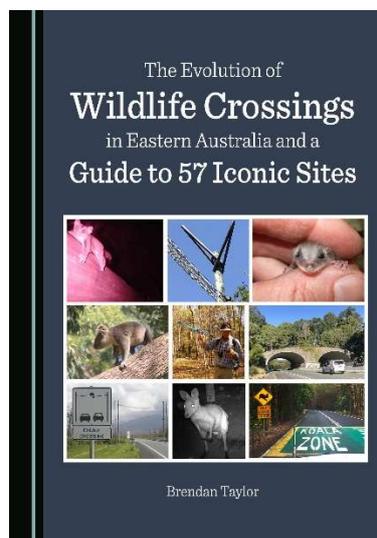
Pipes and box culverts can provide safe passage under the road, while land bridges and rope canopy bridges offer an alternative pathway over the road.

When combined with fencing, these structures reduce roadkill, provide access to resources on both sides of the road, and enable gene flow.

Author: Brendan Taylor

Source: The Conversation <https://theconversation.com/glide-poles-the-great-aussie-invention-helping-flying-possums-cross-the-road-209033>

Check out Brendan's new book: *The Evolution of Wildlife Crossings in Eastern Australia and a Guide to 57 Iconic Sites* <https://www.cambridgescholars.com/product/978-1-5275-0142-3>



Biosecurity Alert – Fire Ants

Red imported fire ants (fire ants) are invasive introduced ants that cause serious social, economic, and environmental harm. They are aggressive and have a severe, burning sting.

Fire ants are not known to occur in New South Wales, but currently infest a large area of South-East Queensland with nests found very close to the NSW border. This proximity makes fire ants one of the highest biosecurity risks to NSW.

Fire ants are a prohibited matter under the *NSW Biosecurity Act 2015*. Their possible movement is regulated under the NSW Biosecurity (Invasive Ant Carriers) Control Order 2023. The NSW Control Order defines 'fire ant infested areas' as being land within a Queensland fire ant biosecurity zone AND land within a 5km buffer around known fire ant nests.

The following things are considered 'fire ant carriers' for the purposes of the order:

- organic mulch
- soil and anything with soil on it
- baled material
- potted plants
- turf
- agriculture or earth moving machinery
- mining and quarrying materials.

Interstate Biosecurity Certificate or equivalent must accompany 'fire ant carriers' that have been procured from a Fire Ant infested area and brought into NSW.

For required actions and more information go to:

<https://www.dpi.nsw.gov.au/biosecurity/insect-pests/fire-ants>



CHECK OUT THE REC's WEBPAGE

<https://www.transport.nsw.gov.au/operations/roads-and-waterways/committees-communities-and-groups/committees-and-groups/roadside>