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Latest news from the REC

- The REC is currently developing its strategic plan for 2013-2016. Any views on actions that could be included should be addressed to the REC Executive Officer (contact details below) by end of June 2013.
 - The REC is again sponsoring the Roadside Environmental Management Award as part of the 2013 Local Government Excellence in the Environment Awards. Entries open in June – go to <u>http://www.lgnsw.org.au/</u>

Mid-Western Regional Council's Roadside Marker Program

Almost a thousand fire-engine red guideposts were recently installed by Mid-Western Regional Council's Environment team indicating a road area of highly significant vegetation to Council road crews and contractors.

The guideposts are exactly the same as normal white reflective guideposts, but these ones are distinctly red, and instead of the usual reflector, they display a green, blue or yellow sticker.

A green sticker indicates a threatened species in the area, such as a Capertee Stringybark (*Eucalyptus cannonii*) or Ausfeld's wattle (*Acacia ausfeldii*).

A yellow sticker marks a high value area such as Box-Gum Woodland Endangered Ecological Community containing White Box - Yellow Box- Blakely's Red Gum trees.

A high concentration of easily transferable weeds is marked by a blue sticker on a red guidepost.

Each sticker also indicates the distance of the high significance area, where the area starts and ends as well as the class and subcategory of the area.



To make sure the project will continue to be effective for the long term, stickers on guide posts are UV protected to last for ten years in the elements, and individual markers will be monitored and replaced when needed. Periodic reviews will be undertaken to make sure guide posts and coloured stickers remain relevant to the areas they mark, and are updated as the environment changes.

Most guide post markers will be located out of towns, especially on back roads which have had minimal disturbance in the past.

The project builds on Council's roadside corridor mapping work undertaken over the previous two years which allowed it to identify the significant areas.

This project was funded by the New South Wales Government through its Environmental Trust.

Preserving the Small Purple Pea in rail corridors



The Small Purple Pea (*Swainsona recta*) is a slender, erect plant with a few rigid stems 20-30 cm high, with a woody root. Leaves are 5-7 cm long and flowers are purple or bluish, 5-6 cm long on a 10-27cm flower spike.

The Small Purple Pea grows in grassy woodlands, usually on hilly, undulating ground with sandy soils. It sprouts new leaves in autumn and winter and flowers in spring, mostly over two or three weeks in October. The seeds ripen in December to early January, and benefit from fire to germinate.

The Small Purple Pea is thought to live for up to 20 years. Over the last 60 years, the range of the Small Purple Pea has contracted to geographically separated populations in NSW. The populations are small and severely fragmented, and are highly susceptible to the impact of catastrophic events. Fewer than 4,000 individual plants now survive.

In the Country Regional Network (CRN) it exists in three known rail corridors: Tralee-Williamsdale, Mumbil-Sturt Town and Mandurama. The Tralee-Williamsdale site holds nearly a third of all the plants found in NSW. There is a conservation agreement in place with National Parks and Wildlife for these sites.

Activities associated with the railway line and easement maintenance, including actions such as herbicide use, constitute a major threat to the species. Farming activities – especially grazing or cropping - are also threatening processes. The CRN has a strong process in place to assist staff working in these corridors in identifying and preserving the Small Purple Pea.

For more details contact Amber Gibbins on (02) 4028 9409



Source: John Holland Country Regional Network

"Linking, Thinking and Acting": Roadside Vegetation in the Murray Region

A partnership of Riverina and Murray Regional Organisation of Councils (Ramroc), Murray CMA and local councils was successful in the recently announced Roadside Vegetation Implementation Project (NSW Environmental Trust funds administered by Local Government NSW).

As the title suggests, the project has three components:

- Direct seeding to enhance the status and connectivity of prioritised roadside remnants
- Education- signage identifying areas of significance; the establishment of three designated cross-region, interpretive sites for multi-level learning and visitation. There is also a sub-program of council management, operational staff training and community information
- Direct intervention, by an alliance of councils, to control *Galenia Pubescens* (carpet weed or coastal galenia in its native South Africa).

After three meetings, this partnership is creating synergies with LHPA, Murray Irrigation and the Riverina Noxious Weeds 'Red Guide Post'.

The area of the project has interesting dynamics: from snow to dust; the Murray River; Council areas that straddle catchment boundaries; Victoria and a "can do attitude".

For more details contact Martin Prestidge, Murray CMA on (02) 6051 2251

Mapping an invasive roadside weed in the Hunter Catchment

The Hunter-Central Rivers Catchment Management Authority (CMA) is undertaking a project to map the invasive environmental weed African Olive (*Olea europaea* subsp. *cuspidata*) across the Hunter catchment.

African Olive infests many roadside areas in the Hunter including the New England and Golden Highways. The initial stage of the project is a pilot test to see whether African Olive can be confidently detected using remote, high resolution imagery.

Different species of plants reflect different wavelengths of light – the test pilot will see whether African Olive has a specific spectral signature in the Hunter which can easily be seen on the latest ADS40 and SPOT imagery. A similar exercise was undertaken successfully in the Sydney area in 2009; however, the Hunter region has different native vegetation types, including remnant rainforest areas which

will need to be able to be distinguished from African Olive infestations.

Birds are the primary vector for African Olive distribution, which is why African Olive is commonly seen along roadsides, under telegraph wires and along railway lines where perching structures exist. These areas act as corridors for further spread into bushland areas.

Once in bushland, African Olive crowds out native shrubs and other vegetation by creating dense understoreys. Vegetation cannot grow under these canopies, resulting in exacerbated soil erosion, especially on slopes and ridges.

African Olive is a high priority weed for the Hunter-Central Rivers CMA due to its impacts on biodiversity, longevity (olive species can live for over 100 years) and seed production levels (up to 25,000 seeds per mature tree). On a positive note the seed viability duration of African Olive has been found to be only 2-3 years, and the trees start to produce fruits and seed at the relatively late age of around 5 years.

The CMA has been working on various partnership projects with other stakeholders, including local government, to tackle this invasive, aggressive weed.



Photo: African Olive treated by the basal bark method along Goorangoola Road near Singleton

For further information on the mapping project or African Olive contact CMA officer Lorna Adlem on (02) 4930 1030.

Dispersal of native Kurrajong and the exotic Peppercorn from paddock trees into adjacent roadside vegetation (Claire Coulson & Peter G. Spooner)

In many fragmented agricultural landscapes vertebrate seed dispersers can play an important role in determining the spatial distribution of plants. However, few studies have examined patterns of dispersal from isolated paddock trees into adjacent roadsides environments.

In this study, we investigated the factors which influence the occurrence and density of roadside populations of two vertebrate dispersed trees (Kurrajong *Brachychiton populneus* and Peppercorn *Schinus molle*), and the role of isolated paddock trees as a source of seed for dispersal.

The study was conducted in the Culcairn region of southern NSW. Native vegetation consists mainly of temperate woodlands (e.g. Grey box and Yellow box) which, due to past clearing, are mainly restricted to roadside reserves.

Results: Examination of the dispersal pathways for Kurrajong and Peppercorn

has revealed that isolated paddock trees are able to disperse to nearby remnants in roadside environments.

We identified two significant determinants of the presence of roadside Kurrajong and Peppercorn populations: (1) the presence of large old Eucalyptus 'perch' trees (> 200 cm girth) in the roadside, and (2) distance to nearest paddock tree of each species. Where large old trees were present in the roadside, the probability of occurrence for both study species remained very high, until distance to paddock tree reached approximately 800 m. We also found that populations of both species were denser on narrow roads, possibly due to disturbances from road management activities.

Management implications: Large 'perch' trees were an important predictor of the presence of roadside populations of both species, which highlights the functional importance of retaining large, old, hollow bearing trees in road reserves.

The results of our study provide criteria to enable roadside managers to either promote native Kurrajong or prevent incursions of exotic Peppercorn. These results highlight the potential for road networks to provide 'conduits' or corridors for the movement and potential invasion of vertebrate dispersed plant species.



Photo: Recruitment of Peppercorn in a roadside environment, with paddock tree of this species in the background (Claire Coulson)

For more details contact Peter Spooner: Institute of Land, Water and Society, School of Environmental Sciences, Charles Sturt University, PO Box 789, Albury, NSW 2640, Australia. Email: <u>pspooner@csu.edu.au</u>

Sydney Weed Alert: Sicklethorn

A newly emerging Asparagus weed, *Asparagus falcatus*, has recently caused a stir amongst weed managers on the east coast. The weed, commonly known as sicklethorn, is known to occur on the mid north coastal region of NSW and south east Queensland (in riparian areas of suburban Brisbane). Sicklethorn is a robust climber that prefers moist, semi-shaded growing conditions and as it looks unlike other Asparagus weeds that have naturalised in Australia it may not obviously strike people as a member of the *Asparagaceae* family.

Introduced into Queensland as a garden plant (which has since escaped in waterways), *A. falcatus* is native to western, eastern and southern Africa, Sri Lanka, the Canary Islands and the Mediterranean.

Leaves are shiny, dark green, often sickle shaped (hence the name!). Woody stems have hard, hooked thorns and are light grey in colour. Small white flowers are followed by fruit that ripens to red.



Whilst literature describes the plant as growing 2.5 - 3 m tall in its native range, anecdotally it grows to 6 metres in Australian conditions. Although originally from sub-tropical regions it will survive overnight temperatures of 2 degrees and `will grow for anybody'.

Sicklethorn has recently been found in Strathfield LGA (infestation was spreading in the M4 roadside corridor, is being eradicated by RMS contractors) and Pittwater LGA (a single plant controlled on a property in Warriewood light industrial area, also near a residential area).

If you spot it in the Sydney region, please contact Rosanna Luca, Sydney Weeds Action Project on 9895 7488

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 create roadside vegetation management plans, go to: www.rta.nsw.gov.au/rec

Please contact the REC Executive Officer (details below) if you wish to subscribe or unsubscribe.

