

Upcoming Events

Barham Landcare Federation Reserve Open Day and BBQ Sat. 20th April

Barham Landcare is currently in the process of re-incorporating after being in recession since 2003.

A meeting was held on the 28th Feb. with 20 people in attendance. The draft proposed objective of the association is the following;

“The Barham Landcare Group is predominantly, but not necessarily limited to, the maintenance and protection of existing Barham Landcare plots, in particular the Federation Reserve on East Barham Rd. and will link with other local wildlife, garden and NRM groups for mutual

support and activities”.

A BBQ will be held at the Federation Reserve at 11 am on Sat 20th April for a walk around the reserve followed by a BYO picnic lunch. All welcome. Contact Alan Mathers on 0354532238 for more information. BYO chair etc.

1st Local Flora / Fauna Photo Competition Winner



More details on Pg. 9

BestWool/BestLamb “Meeting Market Specifications”

What is the most economical lamb to produce, based on growth rate, feed eaten and lamb weight at slaughter?

How do you best meet the grid specifications without being penalised financially?

The Central Murray BestWool / BestLamb group will have the answers at Murrabit on Monday the 22nd April. The night starts at 7pm for dinner followed by a presentation from Peter Bailey, Project Manager, Red Meat Value

Chain & Lamb Specialist, Vic DPI. Also on site will be a representative from a large retailer who will outline what they are looking for in their products.

RSVP Rick Ellis on 0428 372 357.

Special points of interest:

- BARHAM LANDCARE LOOKING TO REFORM
- SOIL TEST INFORMATION AND KITS AVAILABLE
- OVERVIEW OF RICE FIELD DAY
- DRAFT MCMA CAP PLAN ISSUED FOR COMMENT
- SOIL BIOLOGY AND SOIL CARBON WORKSHOP INFORMATION
- SOLAR POWER AND IRRIGATION SYSTEM FIELD DAY

K-P Forest Community Bus Tours 21st April

Community members are invited on a final bus tour to inspect the completed structures of the Koondrook-Perricoota (KP) Flood Enhancement Project on Sunday

21st April 2013. A bus will leave from the KP Info Centre in Barham at 9.00am with a pick-up at the Bunaloo Community Centre at 10.00am. For more infor-

mation, or to book a seat, call Jamie Hearn at the Murray CMA on M. 0447 420 789 or Peter McDonald at Forests NSW on M. 0407 782 628.

Deniliquin Innovation Expo

The Deni Innovation Expo is being held on Friday 3 May and Saturday 4 May. A breakfast will be held to start the event. It will include

a ‘farm forum’ where a panel made up of farmers and industry experts will discuss how they see the future of farming in the

year 2020. For more information on the event, visit www.deniinnovationexpo.org.au or call T. 03 5881 3010.

What is Earlage? Find out in the next newsletter.



‘Yum Yum, feed me some corn to make into earlage’

"Tatilla Ryegrass is not a variety, but a brand for general ryegrass from the USA. You will not get consistent results and that is why it is cheap. It is well worth paying extra for known certified varieties given the additional yield"

**Dean Harrington,
Harrington Ag
Consulting**

Livestock Management Grazing Day

A Livestock Management Grazing day was held at Kerang on the 5th February with 33 people in attendance.

The information day covered;

- Grazing management systems by John Bowman, Vic DPI.
- Understanding soils to manage constraints to production, Declan McDonald, Vic DPI
- Enrich Project update, Peter Jessop, NSW DPI
- Local Service Business learnings, Ron Saunders, Landmark.
- Biosecurity in the Australian Grain Industry, Jim Moran, Vic DPI
- Central Murray Best-

Wool / BestLamb Demonstration Sites, Dean Harrington, Harrington Ag Consulting.

- Overview of the BestBeef and BestWool / BestLamb network by Sam Ellis, DPI Vic.

Some session notes can be obtained from Roger Knight if you would like more details.

Soil Biology Workshop

The NSW DPI and MCMA hosted a Soil Biology workshop was held at Moulamein on the 12th February with 18 people in attendance.

The program started off by looking at the role of soil organisms, the major groups and their function, followed by an overview of soil biology's role in improving nutrient availability, soil structure and reducing plant disease.

Some key points made about management actions that can increase or improve the soil environment for soil organisms, and ultimately soil health for agriculture, include the following;

Maintain ground cover: bare ground is prone to moisture loss, high temperatures and lacks a supply of organic material to feed soil organisms. Plants devote considerable energy to encouraging soil organisms by secreting sugars, vitamins and other organic compounds into the soil.

Minimise physical disturbance: Aggressive soil cultivation depletes organic carbon, dries out the topsoil, and destroys soil structure, fungal hyphae mats and macrofauna such as earthworms. Use reduced or no tillage where possible.

Maintain adequate moisture: Shelter belts, ground cover and soil organic matter all help to retain soil moisture.

Rotate crops or have mixed species plantings: Soil organisms need different root types to maintain a diverse community. They are then better able to resist disease organisms, decompose residues, cycle nutrients and maintain their activity throughout the seasons. Consider introducing a legume species with its associated rhizobia bacteria in the root nodules to convert atmospheric nitrogen to soil bound N.

Chemicals: Insecticides and fungicides applied to plants also affect insects and microbes in the soil, and some

leave long term residues eg. copper can accumulate and affect earthworms etc.

Apply fertilisers in small doses: apply fertiliser in small doses when the plant needs it.

Use organic fertilisers (eg. manures). Organic fertilisers provide micro-organisms with a stable food source which then provides long term slow release nutrients to the plants and have less impact on soil fauna populations.

pH: The ideal soil pH range for most soil fauna is between 5-8. Use amendments such as lime and gypsum to adjust the pH to within this range when necessary.

Drainage: Waterlogging encourages anaerobic bacteria that can damage root growth.

For more information go to the link <http://www.dpi.nsw.gov.au/agriculture/resources/soils/biology/soil-biology-basics>

"BENEFICIAL SOIL ORGANISMS PROVIDE INTEGRATED PEST AND PATHOGEN MANAGEMENT BY EATING OR OUT-EATING THE PESTS AND PATHOGENS"



Rice Field Day

A rice field day was held at the property "Narrawa", west of Moulamein on the 8th March with 33 people in attendance.

The following is a summary of topics covered;

1. **"Niche varieties get an agronomic boost"**, Peter Snell and Ben Ovenden, NSW DPI. Information provided on new varieties having the potential to be more economic to grow with shorter maturity and sizeable improvements in cold tolerance.

2. **"Stubble Management Awareness Program"**, Neil Bull and Daryl Gibbs, RGA. This session covered the rice stubble dilemma, incorporation of rice stubble, retaining stubble on the surface, and removal of stubble.

3. **"Lower Bay Accumulation of Rice Herbicides"**, Malcolm Taylor, Agropraisals. Results of research showed high levels of Magister injury in rice

due to lower bay accumulation, and more attention ought to be paid to the method of re-introducing floodwater into rice layouts to prevent power bay accumulation of this herbicide.

4. **"Residual herbicide combinations for drill sown rice"** Malcolm Taylor outlined the results of application rate trials of Magister and Stomp and combinations of the two on both rice injury rates and Barnyard grass control.

5. **"Challenges for residual herbicides in drill sown rice"** looked at an integrated approach to crop establishment and weed control, such as spreading header trails and ash with a levelling blade, rolling clods post seeding, rapid draining after flushing etc.

5. **"Snail Control—where to from here?"** Mark Stevens, NSW DPI. Information showed how soil organic

carbon levels in different soils affect copper sulphate effectiveness for snail control. High organic carbon levels in some soils could require twice the application rate of copper to achieve the same effectiveness for example. Other potential new chemical options were also discussed.

6. **"2013 Rice Nitrogen Update"** Brian Dunn, NSW DPI discussed recent N trials and how optimum rates varied considerably depending on soil type.

7. **"Rice delayed permanent water"**, NSW DPI. Results of delayed permanent water trials discussed learnings from irrigation frequency, permanent water, N management and weed control.

8. **"Seed treatments"** preliminary research results from Old Coree research station discussed.

9. **"Rice plant population, John Fowler"**, NSW DPI. Overview of proposed project looking at yield from different plant populations. The information will be valuable when determining whether to abandon, re-sow or stay with a crop with low plant numbers.

10. **"Grain quality selection pressure"** looked at the physical, compositional, cooking and molecular characteristics of rice in the breeding program.

Contact the RGA for more information.



Rice Field Day information being presented at "Narrawa".

Solar Power Information Session

The solar power irrigation pumping day was well attended after the Rice Field Day at "Narrawa" on the 8th March.

Attendees were told that the intended solar irrigation system design needs to look at the time of year your irrigation demand is, and this will form the most efficient location and aspect of the solar panels. For example, there

will be different position requirements to most efficiently capture sunlight for summer pump demand for rice production vs winter cereal irrigation with centre pivots / lateral spray systems.

Other discussion was around stationary systems vs tracking solar panel systems and the importance of solar panel quality. Not all solar panels are manufactured equally.

Other topics discussed the importance of installing a variable speed drive or soft starter on irrigation pumps to reduce power bills and that they generally have a pay back of less than 3 years on current electricity prices.

The day also covered irrigation best practice techniques for land layout, soil moisture monitoring

and improving the pump efficiency of existing systems.



Solar panels for 45kW irrigation pump site at "Narrawa"

Central Murray Best Wool Best Lamb - Soil analysis information night



A soil testing / fertiliser workshop was held by the Central Murray BestWool / BestLamb Group on Thursday 14th February 2013 at Murrabit with 18 people in attendance.

Vic DPI representative, Damian Jones and Dean Harrington covered soil nutrient sampling techniques and interpretation of test results for fertiliser application determination.

Samples had been collected from selected members and the results were tabled for review.

A refresher on soil sample test parameters and some examples of how the information was used includes the following;

Cation Exchange Capacity (CEC) is a sum of all the exchangeable cations, i.e. Aluminium + calcium + magnesium + potassium + sodium. The target for the CEC is greater than 20%.

Exchangeable Sodium Percent (ESP). This is percentage of sodium to the other cations. The ESP for one sample on the night was 7.09%. This was calculated by adding up all the cations (which totalled 20.73% - as per the CEC calculation above) and divide the sodium level by the sum. For this example, the sodium was 1.47 (meq/100g). So this is $1.47 / 20.73 * 100$ (to get %) = 7.09%.

The general classification for soils with less than 6% ESP is called non sodic, for soils 6-10% is classed as sodic, 10-15% is moderately sodic and 15-25% is strongly sodic. Adding gypsum (calcium sulphate) will displace the sodium ions in favour of calcium ions, improving the ESP (i.e. reducing sodicity), and increase the CEC (as the total sum of all the cations would increase).

“Think of a book placed in water when thinking about how gypsum works. All the pages in the book will open under water. When the water is removed the pages stick together and become hard and resist moisture penetration. Gypsum helps to hold the soil (or pages) together when wet, and helps to maintain a good soil structure (or book) when the soil is dry”

The higher the CEC the better the soil structure. Gypsum also improves the calcium to magnesium ratio (all soils should have a calcium to mg ratio of greater than 1:1).

When the soil structure and chemical balance improves, the cycling of nutrients improves.

Calcium: Ca should be >5 meq/100g and 65-80% of the total cations present.

sulphur: sulphur is essential for nitrogen fixation by legumes. S Levels should be greater than 4mg/kg.

Magnesium: Mg should be >1.6meq/100g and in the range of 10-20% of total cations

present. If >20% it may result in potassium deficiency.

Potassium: K should be >0.5meq/100g and in the range of 3-8% of total cations present. If >10% it may cause mg deficiency.

Aluminium: Al may be toxic to plants in low pH soils. Al should be <1% of the CEC.

Other key points made were;

Soil Testing: Don't sample too deep. This is one of the biggest mistakes people make. The ideal depth is 10cm. Making up a sample from multiple sub samples avoids the risk of getting an erroneous result from a fresh urine patch for example.

Soil test before lasering ground. There may be boron at depth which can then make contact with plant root zone. boron levels should not be over 2%, as it will affect plant growth and you will be limited to species that are more tolerant to elevated boron levels. Boron cannot be removed from the soil.

Sodium may also be at depth, especially if it has already moved lower into the soil profile via gypsum application. Again lasering might intercept this saline layer.

It takes several years for gypsum to displace sodium. A lot of water is needed to displace the calcium into the soil profile. 2.5tn/ha gypsum

“Think of a book placed in water when thinking about how gypsum works. All the pages in the book will open under water. When the water is removed the pages stick together and become hard and resist moisture penetration. Gypsum helps to hold the soil (or pages) together when wet, and helps to maintain a good soil structure (or book) when the soil is dry”

Damian Jones, Vic DPI

Central Murray Best Wool Best Lamb - Soil analysis information Continued

applied will need 3ML/ha water to shift. Any more will need more water.

Don't incorporate gypsum. Let the sodium ions attach to the calcium as it moves through the soil naturally.

Liquid lime (calcium carbonate) is a waste of money. Calcium ions are larger than the plant stomata pore, so it is not readily absorbed by the plant via the leaf.

Nitrate Nitrogen: If there is high nitrate nitrogen in the

soil test. you need to look out carefully for nitrate poisoning of stock. Firstly confirm the high nitrate level is not from a sampling error by doing a deep N to check the levels at depth to determine if there is any potential toxicity issues.

Oats is particularly affected. In winter, or on cloudy and foggy days the plant doesn't cycle nitrates, so you need to consider the withholding period after nitrogen is applied. Normally the withholding period is 30 days, but

you will need to add another day to this for each cloudy day to be safe.

Phosphorus: Need to convert Super / Phosphorus products to \$/Kg P. For example single super at \$325/tn = \$4.06/Kg P. MAP at \$620/tn = \$2.90/kg P and the freight bills are less.

"Don't sample too deep. This is one of the biggest mistakes people make. The ideal depth is 10cm."

Dean Harrington,
Harrington Ag Consulting

Soil Carbon Workshop

A soil carbon workshop was held at Barham on the 26th February hosted by the NSW DPI and Murray CMA.

Participants found out about the role of carbon in the soil, the land management practices that support soil carbon sequestration, and the outcomes from the MCMA Soil Carbon Research Project and future opportunities in soil carbon in a "carbon economy".

Key soil carbon messages:

1. Soil is a significant carbon sink. Carbon is the main element present in soil organic matter, on average making up 58% by weight.
2. Increasing soil organic matter can improve productivity by improving

soil structure, increasing nutrient cycling and encouraging diversity of organisms.

3. Farm productivity is closely linked to soil functions that depend on decomposition of organic matter which make nutrients available to plants and improves soil structure allowing the movement of air and water through the soil and assist with root growth.
4. Practices that generally increase the amount of organic carbon in the soil include stubble retention, pasture / legume phases in crop rotations, maintaining ground cover on grazing land, and improving plant production through nutrient management.

Results from the MCMA Soil Carbon Research Project conducted in the slopes to plains region of the Murray Catchment will be outlined in the next newsletter.



"INTRODUCING LEGUMES AND PERENNIAL PASTURES IS AN EXAMPLE OF GOOD A MANAGEMENT PRACTICE THAT CAN INCREASE THE CARBON SEQUESTRATION RATE .

Murray Catchment Action Plan

The MCMA would like your feedback on the final Murray Catchment Action Plan (CAP) and whether you agree with the vision, goals and associated strategies, targets and priority actions, or have any other comments.

The MCMA final draft is enclosed for feedback on <http://www.murray.cma.nsw.gov.au/cap2013.html> and is due by the 1st April.

The draft Murray Catchment Action Plan vision is: ***'People, Environment, production - A resilient catchment with healthy ecosystems and capable, productive communities - all adapting to a changing environment'***

To achieve this vision the goals are;

Goal 1, ***'People: to have viable, capable and culturally rich communities'***.

Goal 2, ***'Environment: A healthy and biodiverse environment with connected ecosystems that are understood, valued and respected'***.

Goal 3, ***'Production: Diverse and profitable local economies that are built on sustainable and adaptive businesses and production systems'***.

Goal 4, ***'Local Decisions: to foster capable and empowered local communities with supportive leadership'***

Goal 5, ***'Climate: Landscapes and communities adapted to climate variability and long term climate change'***

A summary of the priority actions for our local landscapes are;

Cadell:

- support management of red gum forests and internationally recognised wetlands through appropriate watering regimes and control of pests and weeds.
 - Work with irrigation communities to secure appropriate water sharing between environment and production
 - Work with governments to reduce red tape affecting local communities' decision making and priority setting
 - Help prepare the community for climate variability and longer term climate change eg. variable water supply and possible transition to less water in the future.
- Support continued management of Koondrook - Perricoota Forest Flood Enhancement Project such as with appropriate water regimes.

Mallee Kool:

- Improve habitat connectivity in the Edward Wakool system for native fish, flora and fauna.
- Effective control of pest animals and noxious weeds in partnership with public and private land managers eg. rabbits, foxes, carp, boxthorn.
- Promote opportunities for efficient irrigation industries and business diversification.
- Support local groups to enhance their involvement in decision making
- Support the Aboriginal community to re-establish connection to country through projects eg. Weraï Forest IPA
- Help prepare the community for climate variability and longer term climate change eg. variable water



Volunteer Grants

The Department of Families, Housing, Community Services and Indigenous Affairs. Volunteer Grants 2013 recognises the valuable work of Australia's volunteers. This initiative forms part of the Australian Government's ongoing commitment to organisations whose volunteers assist disadvantaged communities and encourage inclusion of vulnerable people in community life.

Funding of \$16 million is available to support and encourage volunteering. Eligible not-for-profit community organisations can apply for grants between \$1,000 and \$5,000 to:

- Purchase portable, tangible, small equipment items to help their volunteers
- Contribute to the reimbursement of fuel costs for their volunteers who use their own car to transport others to activities, deliver food, assist with medical appointments or help people in need
- Contribute to the reimbursement of transport costs incurred by volunteers with disability who are unable to drive
- Contribute to the cost of training courses and/or undertake background screening checks for their volunteers.
- Funding is limited and applications will be assessed and prioritised according to how strongly they meet the selection criteria. The selection criteria, eligibility requirements and other essential information about Volunteer Grants 2013 are provided at:

www.fahcsia.gov.au/our-responsibilities/communities-

[and-vulnerable-people/grants-funding/volunteer-grants-2013-application-guidelines](http://www.fahcsia.gov.au/our-responsibilities/communities-and-vulnerable-people/grants-funding/volunteer-grants-2013-application-guidelines)

Export Market Development Grants

The Export Market Development Grants (EMDG) scheme is a key Australian Government financial assistance program for aspiring and current exporters. Administered by Austrade, the scheme supports a wide range of industry sectors and products, including inbound tourism and the export of intellectual property and know-how outside Australia.

The EMDG scheme:

- encourages small and medium sized Australian businesses to develop export markets
 - reimburses up to 50% of eligible export promotion expenses above \$10,000 provided that the total expenses are at least \$20,000
- To access the scheme for the first time, businesses need to have spent \$20,000 over two years on eligible export marketing expenses.

For further information go to www.austrade.gov.au,

Phone Austrade on 13 28 78

Environmental Trust NSW Grants Program

The NSW Environmental Trust is an independent statutory body established by the NSW government to fund a broad range of organisations to undertake projects that enhance the environment of NSW. Its main responsibility is to make and supervise the expenditure of grants. The Trust is administered by the Office of Environment and Heritage (OEH).

The objectives of the NSW Environmental Trust are:

- to encourage and support restoration and rehabilitation projects
- to promote research into environmental problems of any kind
- to promote environmental education in both the public and private sectors
- to fund the acquisition of land for the national parks estate
- to fund the declaration of areas for marine parks and for related purposes
- to promote waste avoidance, resource recovery and waste management
- to fund environmental community groups
- to fund the purchase of water entitlements for the purpose of increasing environmental flows for the State's rivers and restoring or

rehabilitating major wetlands.

To find out more about the programs click on the grant opportunities in [blue text](#).

Education : Opens 16th March and closes 26th April 2013. Available funding \$5,000-100,000 (community groups).

Eco Schools: Opens 16th March and closes 17th May 2013. Available funding up to \$2,500 (60 grants).

Food Gardens in Schools: Opens 16th March and closes 17th May 2013. Available funding up to \$3,500 (20 grants).

Protecting Our Places: The aim of the program is to protect land that is culturally significant to Aboriginal people and to support education projects about the environment and its importance in Aboriginal life. Opens 16th March and closes 31st May 2013. Available funding up to \$2,000-\$35,000.

Coles Junior Landcare School Garden Grants

The Coles Junior Landcare Garden Grants program has been providing grants of up to \$1,000 to schools and youth groups to help create gardens in their grounds or community, such as bush tucker gardens, water wise gardens or veggie gardens.

Round 2 closes Friday 10th May.

Soil Health Monitoring kits



The Murray Catchment Management Authority (CMA) has developed a testing kit for encouraging landholders, school and university students, producer and Landcare groups to actively participate in monitoring changes to soil health over time.

The kits are to be used as an investigative and educational tool, primarily to assess soil physical properties and paddock health; they are NOT to be used as a substitute for laboratory analysis and should not be used to prescribe fertiliser and/or ameliorant applications.

The kits include procedures for:

- Understanding soils to manage constraints to production
- Measuring soil water infiltration
- Bulk density
- Soil Structure
- Soil texture
- Calculating earthworm populations
- Assessing soil aggregate stability
- Paddock groundcover

The monitoring kits allow individuals and groups to score

their results for each test against recognised soil health indicators. The score card included in the kit can be used to influence some management decisions to improve soil health (e.g. grazing management) and be kept as a reference for future monitoring.

The Murray CMA currently has 30 kits which are available for loan upon request. [To support the kit the MCMA also developed a manual which you can download by clicking here \(3.1MB\)](#). Or all the tests are available as YouTube videos which can be found by [clicking here](#).

Contact [Felicity Anderson](#) on 02 60512253.

Hit the bullseye

The pay-off from getting your livestock to meet the specifications of your target market is substantial.

Not meeting market specifications can cost a producer around \$4 per head for each lamb, and as much as \$70 per head for cattle.

An estimated 25% of cattle

in southern Australia and somewhere between 30% and 65% of lambs don't meet the specs of their target market.

Whether it's missing the requirements of an MSA, super-market, organic, EU or other market, livestock can be off-spec for a host of reasons. However, many of these factors can be better managed to

varying degrees through breed selection, genetics within the breed, nutrition, management and handling practices.

The tools and information are there to reduce non-compliance and improve bottom lines. Find out more at the next CMBW/BL meeting at Murrabit on the 22nd April.

Clean up and remove old batteries!

A recent case of cattle gaining access to old batteries leading to stock deaths is a stark reminder that stock managers need to be always alert to stock gaining access to potential poisons.

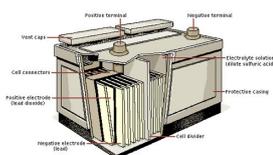
Old batteries can be a risk to stock. Remove any old batteries which may be laying around to avoid lead poisoning causing either death or residues in

stock. Most recycling centres will accept lead batteries. Old lead-based paint, especially where it is flaking, may be another source of lead.

Lead toxicity is characterised by neurological signs including staggering, muscle tremors, blindness, muscle twitching, bellowing, aggression and teeth grinding. Convulsions may be seen as death approaches.

Diagnosis of lead poisoning is based on clinical signs, elevated lead in blood or kidney, and finding a lead source. Post-mortem examination may show lead in the stomach.

Ensuring stock do not have access to lead sources prevents deaths and also minimise the risk of unacceptable residues in livestock products. Take time to clean up any old batteries.



NSW Murray - Biodiversity Management plan

The Murray CMA has issued the Biodiversity Management Plan (BMP) for the NSW Murray as "A guide to terrestrial biodiversity investment priorities in the central and eastern NSW Murray Catchment"

The Murray BMP uses a range of biodiversity planning information - including survey data, and the latest available vegetation mapping, innovative modelling, knowledge from existing plans and strategies, expert panels and community input - to identify opportunities to maintain and improve biodiversity in the catchment.

The Murray BMP was developed with community input after a series of community consultation workshops in

June and July, 2010, to allow the community to identify key assets and areas of high value in the catchment. 154 people attended the workshops and identified nearly 300 biodiversity assets and high value areas. Three panels of experts also contributed more than 200 assets to the list, bringing the total to nearly 500.

Workshop participants also identified threats to their nominated assets. The most common threats noted were weeds, flow regulation, pest animals and unsuitable grazing.

The Murray BMP identifies 30 priority management areas for threatened species, populations and eco-

logical communities and defines recovery management actions for each area.

In the local region there were four priority management areas identified in the Mello-Cunninyeuk area, the Moulamein area, Barham area, and Tullakool - Wakool area.

Iconic (I), threatened (T) or significant (S) species in the four local areas were the Southern Bell Frog (T), Painted Snip (T), Bush Stone Curlew (I,T), Grey Crowned Babbler (T), Gilbert's Whistler (T) and Yellow Gum (T).

Do you have threatened species on or close to your site? The presence of threatened species indicates that the site supports significant biodiversity. It

can also be an added bonus for attracting funding for habitat management. Chapter 5 of the Plan contains a map and lists management actions for the threatened or significant species.

You can find out about which threatened species might occur locally by accessing the NSW Office of Environment and Heritage Website at www.environment.nsw.gov.au/threatenedspecies

To view a copy of the Murray NSW Biodiversity Management Plan go to the MCMA website at www.murray.cma.nsw.gov.au/biodiversity-management-plan

Snap of the Month! - Murrakool Land for Wildlife Photo Competition

As discussed in the last edition, Murrakool Land for Wildlife are holding a photo competition for native flora and fauna found in the local region.

The prize for the best photo includes a Fauna book and "The Use of Locally-Native Trees & Shrubs in the Southern Riverina".

Michelle Morton from Kyalite has been busy taking some snaps and has submitted the winning photo which looks fantastic - thanks Michelle and keep up the good work. Michelle is the winner in this newsletter editions prize.

Other photo entries will be published in the next newsletter as well, so thanks to the entrants.

Remember, if you do not know the species of animal you have photographed it does not matter as we will endeavour to find out what it is and publish the photo in the Regional Landcare Facilitator Newsletter.

Send your photo's in to email: roger.knight@wmlig.org



Winning photo of a Jacky Winter submitted by Michelle Morton of Kyalite

Native Animals of the Local Area - Southern Bell Frog



Southern Bell frogs live in rice bays, where they breed over the summer months. It is believed that this habitat has assisted in the almost total preservation of the species in the riverina region.

The growling grass frog (*Litoria raniformis*), also commonly known as the southern bell frog, warty swamp frog and erroneously as the green frog is a species of ground-dwelling tree frog native to south-eastern Australia, ranging from southern South Australia along the Murray River through Victoria to New South Wales, with populations through Tasmania. This species' common names vary between states; the name southern bell frog applies to New South Wales, growling grass frog in Victoria and South Australia, and green and gold frog in Tasmania. This species has been introduced to New Zealand and the Riverland in South Australia, associated with the Murray River).

Physical description

The growling grass frog is a very large, ground-dwelling tree frog up to 10 cm (almost 4 in) from snout to vent. It is a

mottled bright green and bronze colour above, often with dark brown enamelled bumps. It has a pale cream underside, with a faint cobbling pattern. A pale stripe runs from the side of the head down the flanks as a skin fold. The thighs are blue-green in colour.

The tadpoles are also very large (up to 9.5 cm or 3.7 in). The tadpoles often have a coppery pigment along their sides and an iridescent green sheen along their backbones.

Ecology and behaviour

This species is associated with large swamps, permanent dam impoundments, ponds, and lakes (particularly ones with reeds) in woodland, shrubland, open and coastal areas.

This frog is an agile climber, but is most often found amongst dense reeds or along swampy grasslands. It hunts and basks in the sun

during the day. Growling grass frogs reportedly hunt other frogs by zoning in to the sound of their calls.

The call is a three part moaning "craw-ork ar-ar", rising and then falling in tone (described as the sound of a duck or goose being strangled). The males develop black, rough nuptial pads on their thumbs during the breeding season, which occurs during spring through to late summer. The eggs (up to several thousand) are distributed in a loose pile. These frogs stay in tadpole stage for at least one year.

This frog is believed to be in decline across much of its range. In some regions, it has disappeared altogether, but in others it remains locally abundant (such as in parts of northern Victoria and the Riverland in South Australia, associated with the Murray River).

Atlas of Living Australia



Have you always wanted to know more about the flora and fauna you see during your Landcare activities? The Atlas of Living Australia (AKA: the Atlas) is a partnership of Australian Museums, Herbaria and other biological collections, which contains information on all the known species in Australia.

At last count there were over 35 million recordings of species observations in Australia,

which has been aggregated from a wide range of data providers such as museums, herbaria, community groups, government departments, universities and individuals.

The website (www.ala.org.au) is simple and easy to use and gives you access to multiple features, including the ability to explore:

The national biodiversity conservation prospectus,

One Land – Many Stories: Prospectus of Investment (the Prospectus), presents the Australian Government's vision for conserving and managing Australia's valuable and most vulnerable environments.

Follow link to read more; [One Land – Many Stories: Prospectus of Investment](#)



LIFE Campaign



L.I.F.E – Free campaign resources are available

Landcare Australia has developed free group resources to support groups getting involved with the Landcare Is For Everyone (L.I.F.E) campaign.

Resources include artwork for logos, posters, flyers, bumper stickers, email signatures, removable tattoos, stickers, letterhead as well as

the collection of characters from the L.I.F.E CSA. There are editable fields in the posters and flyers so you can add your own event details and your group logo. Head to:

www.landcareonline.com.au/resources/life-csaresources

Local Land Services

Work is continuing to progress on the NSW Local Land Services. Boundaries are being finalised, arrangements for staff placements discussed, governance sorted etc. To hear the latest or have your say go to <http://lancarensw.blogspot.com.au/2012/12/12/boundaries-almost-there-and-preview-of.html> and you can also go to the NSW government website <http://haveyoursay.nsw.gov.au/localandservices>

NSW Drought Assistance Strategy

Drought support is changing at Federal and State levels. It is important you are across what assistance may support you in the future.

A new national drought package focused on risk management and preparedness rather than crisis management will be introduced in July 2014. The package will include a farm household support payment; promotion of Farm Management Deposits and taxation measures; a national approach to farm business training; a coordinated, collaborative approach to the provision of social support services; and tools and technologies to inform farmer decision making.

Here is the Australian Government DAFF info <http://daff.gov.au/agriculture-food/drought/drought-program-reform> And the NSW DPI info <http://www.dpi.nsw.gov.au/agriculture/emergency/drought>

Prime Minister's Environment Awards

Prime Minister's **Environment Awards** now open. The theme for this year's World Environment Day celebrations is **Think.Eat.Save**. Think.Eat.Save is an anti-food waste and food loss campaign that encourages you to reduce your footprint. [Read more ...United Nations Association of Australia website](#). Nominations close Monday 22 April 2013.

Invasive animals

The Invasive Animals CRC (IA CRC) has recently embarked on a further five years of work under the Commonwealth Government's Co-operative Research Centres program. They are continuing their investigation into new methods of detection and management of the impacts of Australia's key vertebrate pest species such as rabbits, wild dogs and carp. The IA CRC also has a national NRM facilitation and engagement project that helps deliver this research and knowledge to on ground practitioners and land managers through all the NRM agencies. The NRM facilitation and engagement team can also offer technical advice regarding regional vertebrate pest strategies and facilitate coordinated group management across various land tenure.

In the last few months, some new PestSmart resources have been finalised and are now available on the web at www.feral.org.au/pestsmart. Some examples of the new products include the glovebox guide for managing rabbits, guidelines for planning carp fishing competitions, and many more.

Subscribe to the newsletters:

'NRM Notes' by emailing:

jessica.marsh@dpi.nsw.gov.au

'FeralFlyer' at www.invasiveanimals.com/mediacentre/subscribe/



WMLIG Mission Statement:

"Promote sustainable farm and land management practices to enhance our unique natural environment through innovation, education and strong community networks".



**Western Murray
Land Improvement Group Inc.**



Photo of the Western Murray Land Improvement Group Office in the Barham Rest Centre. Call in if you or your group needs a hand with an application or NRM / sustainable agriculture related information.

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Dates to Remember;

- Saturday, 20th April 11.00am, Barham Landcare Federation Reserve Open Day and BBQ, East Barham Rd.
- Monday, 22nd April 7.00 pm, Central Murray BestWool/BestLamb Meeting Market Specifications Night, Murrabit Sports Reserve. A BBQ dinner will be provided.
- Sunday 21st April, 9am bus pick up at Barham and 10am at Bunnaloo, Koondrook-Perricoota Forest Flood Enhancement Project Bus Tour.
- Friday, 3rd May and Saturday, 4th May, Deni Innovation Expo.



CARING
FOR
OUR
COUNTRY