

Natural Matters

NEWSLETTER FOR BURNETT MARY REGIONAL GROUP
NEW YEAR 2016 EDITION



Butchulla Men's Business

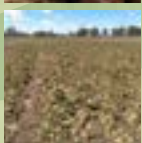
National Lancare Programme funding is helping Butchulla men re-establish their traditional links to Country

Full story on page 7.

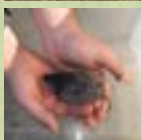
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At the Helm

Welcome to the New Year edition of the BMRG Natural Matters newsletter.

2015 was an extremely busy year as we managed the transition from Caring for our Country to the new National Landcare Programme.

We are continuing to provide funding through the Australian government's National Landcare Programme and have announced successful applicants for Landcare and community group capacity building grants and two grants for exciting Cultural Heritage projects.

The Butchulla Men's Business Association has received funding to provide stronger ties for Butchulla men to traditional cultural and ecological knowledge. Another Indigenous Grant has also been provided to Djaku-nde Traditional Owners for an innovative knowledge recording project about indigenous understanding of rivers and streams and groundwater assets in the North Burnett.

In the near term additional funding opportunities will be announced for projects to protect and enhance the outstanding natural values of Fraser Island and the Great Sandy Strait, one of our region's most important natural assets.

This edition of Natural Matters contains a mix of articles that represent the two key areas we work in: biodiversity conservation and sustainable land management practices. Even though these two fields seem disparate, both produce positive environmental outcomes, albeit in different ways. I hope you enjoy reading it.

We expect 2016 to be a very challenging year given the current funding situation but we are well prepared to ensure that any forced changes will not compromise NRM delivery.

Penny Hall CEO



Board Matters

Positive feedback continues to be received about the new structure of BMRG. Board meetings in 2015 have been very productive and the Board have been approaching the many difficult decisions that will be necessary in the coming months in a considered and consultative way.

The new Board policy of holding regular meetings in regional areas resulted in meetings in Gympie, Wondai, Mundubbera and Maryborough. These meetings have usually coincided with the meetings of our significant partners such as MRCCC and BCCA.

This policy has allowed the BMRG Board to meet personally with and discuss NRM issues with members of these organisations resulting in a better understanding by all parties of regional NRM issues.

BMRG Staff Profile



Paul Dawson Murri Engagement Officer

Paul has recently taken up the lead role in engaging with our region's Traditional Owners.

This new role builds on the work he has been doing for several years in supporting the Bunya Peoples' Aboriginal

Corporation (BPAC).

Paul is an Environmental Science Graduate majoring in Ecology and Conservation Biology and has worked extensively in Tasmania in Aboriginal community engagement roles.

Paul cites a dedication to engaging indigenous

communities in a culturally appropriate way and to participate in cultural heritage protection projects that build Aboriginal connection's to Country.

Paul says that the Bunya Mountains is of incredible cultural importance and that BPAC is in a unique position to raise the profile and significance of the mountains and to provide a forum for discussing priorities, rights and responsibilities for caring for country.

It is also a way in which Aboriginal communities can work together towards creating positive social, economic and environmental changes.

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A Special River, A Special Turtle & A Special Landcare Group

The Mary River is unique in that it is one of very few rivers to flow in a northerly direction in Queensland. It flows from headwaters near the Sunshine Coast hinterland into the Ramsar listed wetlands of the Great Sandy Strait and supports more than 150 rare and threatened species of plants and animals – one of these being the endangered Mary River Turtle (*Elusor macrurus*).

The Mary River turtle is endemic to the Mary River and tributaries and is the only representative of its genus on earth. These turtles are cloacal ventilators, meaning they have the ability to extract oxygen from water drawn through gill-like organs in the cloaca (or bottom). This allows them to remain submerged for long periods of time when conditions are right.

They are one of the largest short-necked turtles in Australia; males are larger than females and easily distinguished as males by exceptionally large tails. Once known as the “penny turtle” eggs were collected and the hatchlings sold in pet shops around Australia which contributed to the endangered status of this species. Today, further threats to the Mary River turtle include predation of nests by feral and native predators, poor habitat caused by river impoundments, trampling of nesting banks by stock and poor water quality.



The magnificent Mary river

Luckily, the Mary River turtles have some good friends in Marilyn Connell and the other dedicated members of the Tiaro Landcare



Tiara Landcare's Marilyn Connell monitoring on the banks of the Mary river

Group. Since 2001, the group have been actively involved in conserving this endangered species through actions that protect nests from predators including baiting, fencing and predator exclusion devices. They also share their passion with the community through field days to increase awareness about the turtles. With funding from the Australian Government, BMRG are presently assisting Tiara Landcare members to undertake a systematic survey to determine the present status of the population of the Mary River turtle to inform future conservation actions and to continue their work protecting nests to increase the number of hatchlings emerging and entering the river.



Mary River turtle hatchling

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Productive Cropping in the Inland Burnett

Burnett Mary Regional Group together with David Hall Consulting recently ran a Productive Cropping Workshop for farmers managing the red soils of the inland Burnett. About 15 landholders came to hear about fertiliser product selection, soil sampling and testing, strip tillage and soil compaction.

It was a relaxed morning with a cooked breakfast provided and plenty of opportunity for questions and discussion.

Agronomist David Hall presented results from a trial run on the property where the workshop was hosted (located between Kingaroy and Kumbia) and the group discussed ways to address what seems to be an increasing problem with compaction in crops such as wheat grown after peanuts (the

peanuts are grown in a strip tillage system).

David Hall also outlined the keys to getting the best out of soil tests (eg: correct sampling techniques using local labs that conduct tests suited to Australian soil conditions). Also discussed were some of the plant nutritional aspects farmers need to be aware of when considering new fertilisers, soil conditioners, microbe products, manures and other amendments which are on the market. Feedback from the workshop indicated that a great day was had by all, the information provided was relevant and the relaxed format was appreciated.

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Peanut crop in the fertile red soils of the South Burnett



Workshop presenter David Hall checks out a wheat crop

Fighting Carbon Emissions - On the Ground

The Burnett Mary's Action on the Ground project has had a challenging 12 months. Project sites were knocked for six with Tropical Cyclone Marcia, which caused severe flooding in Monto on 20 February, 2015. 210mm of rainfall was recorded at one demonstration site with both sites inundated by flood waters from Three Moon Creek and Cania Dam.

Impacts to the equipment and sites were extensive with nitrous oxide chambers and moisture probes washed off the demonstration sites and soil uniformity impacted - with 15cm of topsoil lost from the fallow treatment and this sediment washed on the remaining treatments

As the flood waters receded and both sites became accessible, Burnett Catchment Care Association (BCCA) and the landholders retrieved, cleaned and repaired equipment. The mung bean crop being monitored, however, failed.

To keep the project on-track, the BCCA's Project Officer, Jenny Voigt liaised with both participating landholders and the project's Technical Working Group to put in place a speedy recovery strategy which resulted in a revision to the crop sequencing and the

sowing of an experimental crop of faba beans in May. The faba beans were considered a great alternative as the time from planting to harvest is shorter (5-6 months).

The demonstration plot treatments were sampled for the program in October with analysis being undertaken by Central



Mung bean crop damaged following the flooding from TC Marcia

Queensland University and a full harvest has now been completed with good yields estimated between 3.8t/ha to 4.3t/ha. Jenny is currently undertaking soil tests to track the nutrient and soil biology before a compost application from Wide Bay Composts. Technological advances are also being incorporated into the project with the installation of larger sampling chambers (in conjunction with the Department of Science, Information Technology and Innovation). Work is already underway for the planting of the next crop, sorghum, for a March/April harvest.

Keep watch as we let you know some results over the coming months!

This project is supported by funding from the Australian Government Department of Agriculture and Water Resources as part of its Carbon Farming Futures Action on the Ground program.



An experimental crop of Faba beans provided promising yields

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Win for the Water Mouse

BMRG has been involved in a multi-year project with graziers in the Bustard Bay/Eurimbulah National Park in the North of the BMRG region.

The project began as part of the National Species Recovery Plan for the water mouse (*Xeromys myoides*), a reclusive nocturnal native rodent listed as vulnerable under the EPBC Act.

It was thought that there might be a population in the area but no data was available to support this.



The water mouse (Xeromys myoides), a vulnerable species under the EPBC Act. Its habitat is being protected by the erection of stock exclusion fencing by graziers in the Bustard Bay High Conservation Value Aquatic Ecosystem



Coastal saltmarsh with a water mouse nest in the foreground

BMRG project staff conducted a survey to fill this knowledge gap. Landholders and community members were encouraged to be involved in the survey and a robust water



Local grazier Georgie Keyes has installed environmentally friendly stock exclusion fencing to protect sensitive saltmarsh areas and water mouse habitat. The fencing also helps to reduce erosion which improves water quality entering the marine environment

mouse population was identified.

The area is primarily used for grazing and regular access by cattle to the coastal saltmarsh (also listed as threatened under the EPBC Act) threatened the health of the ecosystem and reduced water quality flowing into the adjacent marine area.

Funding through the Australian government's National Landcare Programme was made available to local graziers to erect environmentally appropriate stock exclusion fencing. The fencing benefitted the graziers allowing them to more easily move and manage their stock.

To date more than 375 ha of saltmarsh has been protected and the project is ongoing with more graziers realising the benefits of having the fencing.

One grazier has erected more than 20 km of fencing to date and has plans to add another 25 kms in the next 12 months.

This project is a great example of how biodiversity can be protected by activities that also benefit land managers through improved practices that increase productivity.

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Bringing Butchulla Men Back to Country

Funding through the Australian government's National Landcare Programme is helping local Butchulla men re-establish traditional skills and links to the cultural heritage of Butchulla land.

The Butchulla Men's Business Aboriginal Corporation (BMBAC) were the recipients of one of two \$10,000 grants designed to increase indigenous awareness and participation in natural resource management.

Local Butchulla Traditional Owner, Glen Miller, who was instrumental in the formation of the BMBAC, said "When Butchulla men were removed from their traditional lands, they were disarmed and disempowered – losing their traditional role in Aboriginal society as hunters and protectors."

"For the women, it wasn't so bad, as the gatherers and child rearers, they still had a role to play."



Butchulla Men's Business Aboriginal Corporation members

Butchulla Men's' Business is about enabling Butchulla men to re-establish their skills and links with traditional country.

The group is already gaining momentum, with twelve members and four visitors attending the first of four training camps held on the weekend of 21-22 November on Tandora, a cattle property located at the confluence of the Mary and Susan Rivers, near Maryborough.

The purpose of the camps is to provide training to members in the identification of stone tools, shell middens, scarred trees and how to record them, using up to date GPS equipment and site recording forms.

"When Butchulla men were removed from their traditional lands, they were disarmed and disempowered - losing their traditional role in Aboriginal society as hunters and protectors "

"We're about getting Butchulla men and boys out and looking at where our people lived and worked before us, but also about gaining new skills in order that we can protect and physically restore some of our significant places for future generations."

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Call us TODAY to renew or to refer someone to join

(07) 4181 2999

Only \$10.00 per year to have your say in how our natural resources are managed



FINIA Turns Ten

In 2005, BMRG supported a workshop on Fraser Island to discuss how to manage the spread of weeds.

At this workshop it soon became clear that weeds were just one of many threats to the island's outstanding natural values.

To address this FINIA was born and a framework was developed that allowed all the groups with tenure over different parts of the island to come together in a coordinated and collaborative way.

As FINIA developed and the partnerships grew (there are now 15 organisations that are part of FINIA) so too did their activities.

Native seed collection, propagation and revegetation, pest management (*Jamella* pandanus leaf hopper and cane toads), marine debris cleanups, research on fire management, dingo management, the unique patterned fens and swamp orchids, erosion and rainfall monitoring, cultural heritage mapping and a suite of awareness raising activities about managing the threats to the island.



FINIA partners working together to protect the outstanding natural values of Fraser Island

FINIA has been described by members as the catalyst that holds all the members together and making things happen.

Support for the event was provided by the University of the Sunshine Coast and Kingfisher Bay Resort and through funding from the Australian Government's National Landcare Programme.

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Spirit of Coastcare

Coastcare is the Landcare equivalent that concentrates on the marine and coastal environments.



Cooloola Coastcare volunteers collecting data about seagrass - part of a 15 year monitoring initiative

Part of the "Spirit of Landcare" series, an initiative of BMRG's Regional Landcare Facilitator, Kay Enkelmann, the stories highlight the work of the small and dedicated groups of individuals who dedicate their time and energy to protecting their environment.

The latest installment in the series is "The Spirit of Coastcare". It focusses on the Cooloola Coastcare group who work primarily in the southern part of the Great Sandy Strait.

The group started in the mid 1990s and has evolved into an active group that covers a diverse range of coastal land and marine management issues.

The group has been conducting seagrass monitoring, essential habitat for dugong and marine turtles and have made a particular effort to restore foreshores in the Cooloola area to a state that is as natural as possible where local native plants abound.

"Coastcare is the same movement as Landcare. It's all about stewardship of country..."

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Water Quality Science Day

In December, BMRG hosted a Water Quality Science Day.

Following upon the release of the latest [Great Barrier Reef Report Card](#), the Water Quality Science Day was designed to review some of the report card outcomes, the science underpinning the reporting and to discuss how the recently released Burnett Mary Water Quality Improvement Plan (WQIP) will help with providing prioritisation of water quality improvement projects currently being developed.

The Science Day was hosted by BMRG's Chief Scientific Officer, Dr Fred Bennett, who played a lead role in producing the BMRG Water Quality Improvement Plan (WQIP).

Presentations included a review of the Reef Report card by Kevin McKosker from the Department of Agriculture & Fisheries. Current catchment and paddock scale modelling updates were provided from representatives of the Department of Science, Information Technology and Innovation and Dr Bennett provided practical examples of how reef water quality projects are being prioritised.

8 Environmental Science students from CQU also attended the event. The students were provided with a real world understanding of the types of work their studies will lead to.

The Science Day also provided the students with a networking opportunity for future possible career directions and work placement.



Attendees at the BMRG Water Quality Science Day learn about the science behind water quality outcomes

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Continuing the Fight Against Ferals

In November, BMRG joined forces to hold a workshop in Miriam Vale to advise and support local landholders in their fight against feral animals such as wild dogs, pigs and foxes.

These feral pests put significant pressure on agricultural production and biodiversity. They destroy crops, pasture and native vegetation.

In riparian areas and waterways their activities impact upon water quality which can have far reaching consequences particularly as the catchment's waterways flow into the Southern part of the Great Barrier Reef Lagoon.

These pests also predate endangered species such as marine turtles whose nests and hatchlings are vulnerable and a host of small native animals.

16 members of the local community from in and around the Baffle Creek area attended the event. They were provided with a range of management options provided by representatives from Biosecurity Queensland, the Gladstone Regional Council and professional trappers.

The workshop was funded jointly through the Australian government's Systems Repair program and the Nest to Ocean program.



Feral pig numbers in the Baffle catchment are on the increase causing havoc to agricultural production and waterways and riparian areas

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Getting Down & Dirty with Dung Beetles

70 people from all over the region gathered in Kingaroy in November to talk about dung! The workshop, facilitated by the South Burnett Grazing Network was funded through the Australian Government's Regional Landcare Facilitator Programme and taught participants about the importance of Dung Beetles in grazing systems.



Graziers learned about the importance of dung beetles in improving soil health

Guest speaker Bernard Doube from Dung Beetle Solutions Australia covered a variety of topics including: identification and life cycle, the role of dung beetles in improving soil health, recycling nutrients, increased pasture production, controlling gut parasites in grazing animals as well as controlling bush and buffalo flies.

Graziers were encouraged to bring along samples of dung beetles found on their own properties for identification. Participants both young and old enthusiastically spent the afternoon in a local paddock digging through dung piles and the soil underneath.



Digging through dung. Participants learned to identify different types of dung beetle

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Partnership Protecting Migratory Shorebirds

Migratory shorebirds that visit our shores undertake astonishing feats of migration; from breeding grounds in the arctic tundra and Siberia along flyways to the Great Sandy Strait where they rest, roost and recuperate.

In recent years, a sharp decline has been observed in many of these migratory species



The Bar-tailed Godwit - a remarkable migratory shorebird known for its feats of endurance during migration. A recent study has indicated that of 1451 migratory shorebird species, 1324 have inadequate protection for at least one part of their migration pathway.

A partnership between BMRG, the Depts of Environment & Heritage Protection and Natural Resources and Mines, the Queensland Wader Study Group and the University of Queensland is researching how Australia's coastal environments can be managed to aid in the recovery of threatened shorebird species.

The study indicates that the major risk is habitat loss and fragmentation along traditional migratory flight paths.

Dr Richard Fuller, also from the University of Queensland said that initial research has shown that there is an urgent need to coordinate and protect areas for shorebirds across their full migratory routes.

He adds that it doesn't matter what we do in Australia, if shorebirds are losing habitat elsewhere, they will still perish.

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Jewel in the Crown

In 2008, the Gympie & District Landcare Group received funding to establish and maintain a bio-control facility to research and produce a range of bio-controls.

The latest weapon in the bio-control arsenal is



Adult Jewel Beetles on a healthy cat's claw creeper leaf.

the Jewel Beetle. Target specific to cat's claw creeper, the feed upon healthy leaves reducing the plants vigour.

The Landcare group recently had outstanding success in raising Jewel Beetles at the facility with one tented enclosure producing 2500 beetles from a base of 100.

In combination with other bio-control agents such as the tingid bug, they are part of a suite of actions designed to reduce the spread of cat's claw creeper.

Establishing ongoing self supporting colonies is not without its difficulties with predation, winter dormancy and weather all factors in a successful release.



Gympie Landcare Group members inside one of the tents in the bio-control facility producing jewel beetles

The jewel beetle is available for release and Landcare group members are able to discuss releasing options with Landholders.

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Methane Emissions Much Lower than Thought

Methane emissions from cattle in Australia are much lower than previously estimated, following analysis of new research data.

An 8 year study by CSIRO scientists has found that methane emissions are 24% less than previously thought (equivalent to 12.6 Mt per year).

The research has developed a new methodology which brings the National Greenhouse Gas Inventory in line with international estimates of the Intergovernmental Panel on Climate Change.

The work was conducted based on doubts about accuracy of previous methodologies for calculating emissions in the 1960s and 1990s. The results are positive news for the livestock sector in its search to improve production efficiencies and demonstrate its environmental credentials.

The latest research findings also identified a number of management measures producers can implement to substantially reduce methane emissions while increasing productivity.

Some are as simple as integrating leucaena into grazing systems, improving growth rates or herd reproductive performance. A future, innovative option might be the inclusion of red algae to feed livestock.

Read more [here](#) or call BMRG for more information on Carbon Farming opportunities.



Grazing industry gets a significant emissions reduction boost

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Useful Links

What's on in the region

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