

# the CODLine



## Our Journey with Waterwatch



**STORY BY**  
**Cath and**  
**Col Robinson**

Back in the late 1990's through Landcare we got involved in testing the water in Amamoor Creek a few kms down stream from where the North and South arms of the creek join.

Due to lack of equipment and because we were a distance from all the other guys who were monitoring, it was decided we would take a break.

In 2002 we saw an advert about the MRCCC and the program they were conducting so once again we volunteered to get involved.

We have monitored and recorded the weather in our area since 1997. 2002 was an extremely dry year and all though the following years 2003-2005 we recorded reasonable rainfall the land was still dry.

2006 saw another huge dip in rainfall, the creek suffered as did the water table.

All though the water was low in those years the effect on the creek does not seem as adverse as it is today. We have had decent winter rain this year, but the creek still drops fast after the rain has gone.

With the floods comes a change in the creek's path due to where the debris is deposited. The debris can consist of trees, branches, creek rock, sand, silt etc.

Where we sample the water, the base now is silt and sand and sits around approximately 1 to 2 metres deep, whereas several years back it would have been 3+ metres deep and rocky on the base.

It is good to take a breather from the busy schedule and take a walk down to the creek not only to do the testing but take

in the tranquillity of nature and listen and watch the wildlife.

Could not ask for a better spot to live and call home, the only sad part is due to the change in the creek we no longer have the platypus living and nesting.

### 20 years of Waterwatch

**BY Jess Dean**

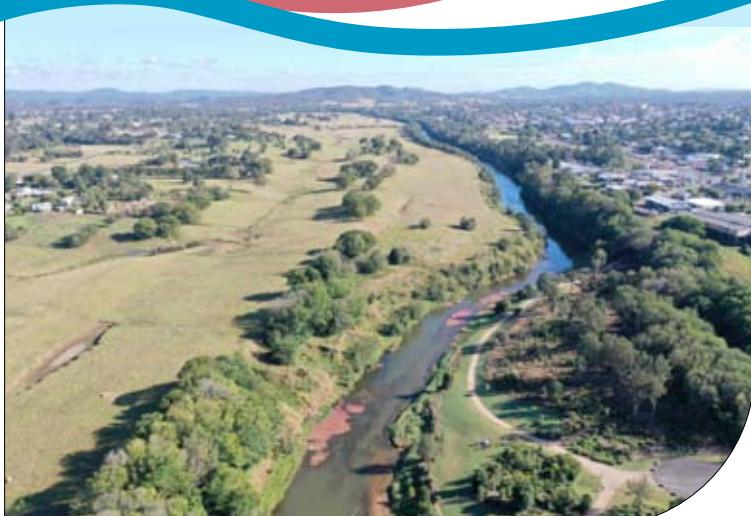
Severe drought, high salinity and genuine curiosity about water quality were the drivers for the formation of the first community based Waterwatch Network in the Mary River Catchment in 2001.

Today, there are 10 Waterwatch Networks throughout the Mary River Catchment with 113 trained citizen scientists.

**STORIES CONTINUED ON PAGES 10 + 11**



# Harping on about the Mary



**Grab a cuppa,** sit yourself down in a comfy chair, and check out the wide range of videos on the MRCCC's website. There's hours of viewing now available covering riparian rehabilitation, Waterwatch and catchment crawls, threatened species including our cod, turtles and lungfish, Mary Catchment history and our new River Processes video!

Look under the Information tab for Mary Catchment videos:

**<https://mrccc.org.au/videos/>**

and enjoy!!



# Mary River cod breeding

In 2020, 8,000 Mary River cod fingerlings were released into 16 sites along the Mary River including Coonoongibber, Belli, Yabba, Kandanga and Six Mile Creeks with approximately 500 fish released per site, dependent on water flow and riparian cover. Darren Knowles reported that there were nine spawnings in total at his Hinternoosa Hatchery, from the six pairs of brood stock, which was a record amount of spawnings for one season.

Unfortunately, due to the unseasonal hot spell in mid-November, quite a few fingerlings were lost in the grow out ponds, as the water chemistry, in particular pH levels, went crazy. Due to these factors Hinternoosa Hatchery was only able to fulfil about 60% of its orders for that year, but approximately 36,000 MRC fingerling were distributed throughout south east Queensland for recreational fish stocking.



This year, Darren's reported six spawnings already in the hatchery system, with around 50,000 fingerlings of various stages, hatched and feeding well. These fish are being fed on the pond produced plankton that is harvested daily, and fed to the troughs inside the hatchery. So with this good start we are hopeful of a good season, as Darren works on a number of measures to ensure another water chemistry issue doesn't eventuate.

## Closed season for fishing in the Mary

### August, September and October

It's not been widely announced, apart from on the department website, but there is a 3 month ban on fishing in significant parts of the Mary catchment. The ban coincides with the breeding season for the endangered Mary River Cod.

The Mary River Cod's reproductive behaviour makes it particularly vulnerable during these three months as the male is very defensive of the eggs, while continuously fanning water over them to keep them oxygenated.

While no angler ever admits to 'targeting' Mary River Cod (it being illegal to do so, and attracts a hefty fine) anyone dangling a line in the vicinity of a male on egg-tending duties is more than likely to hook one.

When a male is removed from his well-tended eggs, egg mortality is high in even a short time. The unsuspecting angler, taking time to unhook his catch, and maybe pose for the apparently obligatory pic, may well have consigned several thousand young cod to oblivion.

For this reason, as well as it being well-nigh impossible to prove that and an angler was 'targeting' Mary River Cod, there has been, since 2019, a total ban on fishing in parts of the Mary system known to be significant cod habitat.

On Obi Obi Creek there is a total, year round, fishing ban from the Baroon Pocket dam wall to Obi Obi Creek crossing 4 (Manuel Hornibrook Bridge).

On Tinana Creek and tributaries upstream of Teddington Weir, there is also a year round ban on fishing. In addition to this:

**'A person must not possess or use a fishing line from 1st August to 31st October in the Mary River and adjoining waterways upstream of its junction with Six Mile Creek (near Gympie). This includes not only the river itself, but also the remainder of Obi Obi Creek, Six Mile Creek, Kandanga, Amamoor and Yabba Creeks. The only exceptions to this are Baroon Pocket Dam, Borumba Dam and Lake Macdonald, all of which are stocked impoundments.'**



Further information is available at...

<https://www.daf.qld.gov.au/business-priorities/fisheries/recreational/recreational-fishing-rules/closed-seasons-waters/freshwater-areas>

# New DNA test

## to transform wild fish population management

A DNA test developed by CSIRO, Australia's national science agency, can improve management of wild fish populations for conservation or harvest by determining the ages of fishes.

Postdoctoral Fellow with CSIRO's Environomics Future Science Platform Dr Ben Mayne said the new method is a non-lethal alternative to counting growth rings in their otoliths, or ear bones of fish, to reveal their age.

*'We developed a fast, cost-effective DNA test for use with three threatened Australian freshwater species, the Australian lungfish, the Murray cod and the Mary River cod, which can also be adapted for other fish species,'* Dr Mayne said.

*'Knowing the ages of fish in a population is vital for their management, such as setting sustainable harvests or determining whether a species is at risk of extinction as well as understanding growth and reproduction of a species.'*

*'We're now hoping to share this test with fisheries managers to support conservation projects and sustainable fisheries worldwide.'*

Until now, most animals, including fish, didn't have a practical and non-lethal method to determine age.

Senior Research Scientist at Seqwater Dr David T. Roberts has been conducting research on lungfish for over a decade.

*'The search for a method to age Australian lungfish has been costly and technologically challenging,'* Dr Roberts said.

*'This breakthrough DNA-based ageing method will advance our understanding of lungfish population dynamics, providing a low cost, accurate and simple method that will improve conservation efforts long into the future.'*

Tom Espinoza of the Queensland Department of Regional Development, Manufacturing and Water has spent 15 years working on water planning that balances the needs of multiple stakeholders and key aquatic species in Queensland.

*'Australian lungfish, Murray cod and Mary River cod are iconic species in Australia due to their economic, scientific and cultural value,'* Mr Espinoza said.



*'Non-lethal ageing provides an important platform from which to develop this technique across more species and improve management of the fisheries and natural resources that support them.'*

To develop their DNA test, Dr Mayne's team first worked with zebrafish, which have long been used to study fish biology, before calibrating their technique for threatened species using fish of known ages, bomb radiocarbon dating of scales, and ages determined from otoliths.

The result is a rapid and cost-effective method to determine the age of a fish, which is based on methylation of DNA at places in the genome known as CpG sites.

Despite the zebrafish and the Australian lungfish being separated by more than 100 million years of evolution, this system is conserved and works in both species.

This work is part of CSIRO's ongoing research to develop ways to use DNA to measure and monitor the environment, including estimating the lifespan of vertebrate species using DNA and surveying biodiversity in seawater using eDNA.

*'We are continuing to work with lungfish and cod in south east Queensland by ageing historic genetic libraries to provide detailed demographic profiles to help conserve these species,'* Dr Mayne said.

The paper *'Non-lethal age estimation of three threatened fish species using DNA methylation: Australian lungfish, Murray cod, and Mary River cod'* was published today in Molecular Ecology Resources with authors from CSIRO, Seqwater, Queensland Government, NSW Department of Primary Industries, University of Queensland and University of Western Australia.

<https://onlinelibrary.wiley.com/doi/10.1111/1755-0998.13440>

More information: An earlier paper is also available - A DNA methylation age predictor for zebrafish.

<https://pubmed.ncbi.nlm.nih.gov/33353889/>

## No nets

The MRCCC recently became aware of an incident where someone was using a cast net in the Mary River near Gympie to catch bait fish. A subsequent enquiry by the MRCCC to the Queensland Department of Fisheries revealed that cast netting is illegal in freshwaters in Queensland, and is only permitted in tidal waters.

This easily understood restriction can be found on the Fisheries website. Despite this, in a phone poll of 14 bait and tackle stores from Maroochydore to Bundaberg, seven respondents said there was no restriction to using a cast net in the freshwater part of the Mary, another 4 said they had no idea as to whether it was legal

or not, and only 3 correctly replied that they're not to be used. And while it might seem a fair distance between the Mary and a store in Bundaberg, the cast net ban is for ALL freshwater in Queensland, not just the Mary.

As part of the same survey, only three stores knew of the 3 month closed season (August, September, October) for ALL fishing upstream of Gympie. Congratulations to Borumba Bait and Tackle in Imbil, who not only knew of both restrictions but had taken efforts to inform anglers about them.

Fishing is available year round in the stocked impoundments in the catchment which includes Borumba Dam, Baroon Pocket dam and Lake Macdonald.

# Twisted and Tangled Natives

Here at the MRCCC's home base in Gympie, many natives have been planted right from the start. Every year since, a few sadder plants were replaced and more conscious diversity established. There are now many gaps fillers with native ground covers and vines. One big step forward in August was the labelling and mapping of what is now growing.

Pictured here are the keen volunteers undertaking this. Brad Wedlock on the left was joined by recent volunteers Zac Rogers and Isabella Auld (Izzy), with walking encyclopaedias Ernie Rider and Steve Burgess.

Their observations and head-scratching has resulted in more labels for the casual observer, as well as a detailed identification map along the fence line and building itself for the more inquisitive. Thanks to Izzy for all her work with this.

One of the lists now available on request is of the native vines. Also available is a compilation folder of fact sheets on these vines, mainly courtesy of the Gympie and Noosa Landcare websites.

There's more to come, including the full list and locations of the numerous native edibles and medicinals. In fact, seven of the vines listed here are in this category: not enough for a lap of the yard to sate your appetite, but hopefully enough, in a good season, to tickle your tastebuds!



Native wisteria



Snake Vine and flower

In the meantime, though, please meander, coil, twist, twine, creep or spiral your way through this Mary Catchment Resource Centre vineyard list.

<b>Snake Vine / Climbing Guinea Flower</b>	<i>Hibernian scandens</i>
<b>Bellbird Vine</b>	<i>Melodinus australis</i>
<b>Native Sarsaparilla</b>	<i>Hardenbergia violacea</i>
<b>Richmond Birdwing Butterfly Vine</b>	<i>Pararistolochia praevenosa</i>
<b>Round-leaf Vine</b>	<i>Legnephora moorei</i>
<b>Bower Vine / Bower of beauty</b>	<i>Hardenbergia Violacea</i>
<b>Wonga Wonga vine</b>	<i>Pandorea pandorana</i>
<b>Fraser Island Creeper</b>	<i>Tecomanthe hillii</i>
<b>Millaa Millaa Vine</b>	<i>Elaeagnus trifolia</i>
<b>Native Wisteria</b>	<i>Callerya megasperma</i>
<b>Scrambling Lilly / Native Asparagus</b>	<i>Geitonoplesium cymosum</i>
<b>Monkey rope vine</b>	<i>Parsonsia straminea</i>
<b>Dusky Coral Pea / Red Kennedy Pea</b>	<i>Kennedy rubicunda</i>
<b>Burny Vine</b>	<i>Trophis scandens</i>
<b>Kangaroo Vine / Water Vine</b>	<i>Cissus antarctica</i>
<b>Wombat Berry</b>	<i>Eustrephus latifolius</i>
<b>Giant Pepper Vine</b>	<i>Piper hederaceum</i>
<b>Native Yam</b>	<i>Dioscorea transversa</i>
<b>Native Lilac</b>	<i>Hardengergia violacae</i>
<b>Zig Zag Vine / Leichardt Vine</b>	<i>Uveria leichardtii</i>
<b>Wax flower</b>	<i>Hoya Australis + potsii + macgillivrayi</i>

# Vine weeds: a twisted observation

Why do we make treating environmental weeds such as cat's claw creeper and madeira vine a priority, even when sometimes it seems like an uphill battle without an end in sight? Well, there is still some excellent remnant vegetation in some of the Mary River's tributaries which is worth protecting. The financial resources required to re-plant native vegetation, not to mention the time spent waiting for it to grow to recover its ecosystem services and functions is a much more substantial investment compared to preventing it from being destroyed by weeds in the first instance.

Amamoor Creek and Kandanga Creek have recently been the focus of concerted efforts to treat emerging and mature infestations of both cat's claw creeper and madeira vine, as part of the MRCCC's Reef Trust IV program, which began in mid-2017, and is now in its final year. Today, we can reflect on some of the successes, lessons learned and challenges encountered through this program over the course of the last three years when the majority of intensive weed control efforts have occurred.

For many landholders, fast-growing and difficult-to-treat vine weeds can get out of hand quickly, and become an overwhelming problem without a clear starting point. If the infestation can be brought down to a more manageable

level with the help of contractors, most landholders are willing to re-treat the regrowth themselves, and with this ongoing commitment the infestation is more likely to be kept under control. In conjunction with the physical and chemical control, biological control agents; the tingid bug, jewel beetle and madeira beetle (these are reared locally at Gympie and District Landcare) are deployed. Recently, some good tingid damage has been observed at upper Kandanga Creek (see photo), with an area of up to 100 square metres of dense ground-level cat's claw completely defoliated.

As with any project operating under a limited budget and timeframe, the process to decide the best way to prioritise on-ground project work has to consider several factors. The challenge lies in distributing funds over a large area, with different size and severity of infestations. The quality of vegetation being protected by the control efforts should also factor in. Another key challenge which has emerged towards the end of the project is the presence of madeira vine, mostly in the Amamoor Creek catchment, which has proven to be more widespread than first thought. Landholders and contractors have reported that madeira vine is coming through in areas where the cat's claw creeper is removed, meaning that the madeira vine tubers must already be

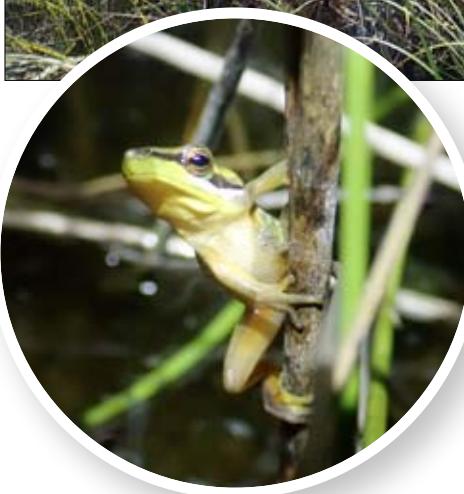
present in the soil, waiting for the right conditions to grow.

Although the budget for weed control for the Reef Trust IV program is now almost fully expended, there is still plenty to do so the MRCCC will be pursuing further funding opportunities for these areas in future. The MRCCC is grateful for the ongoing landholder support, and the work of Landcare group contractors.

**STORY BY Sarah Grimish**



# Wallum Wildlife coping with Wildfires?



Late 2019 saw devastating bushfires rip through many parts of eastern Australia, and if you travel down coastal NSW, you will see much evidence of scorching. You can also see this to the north of the Mary River catchment around Woodgate and near Perigian, where a fierce fire went through the area.

The Federal Government Department of Agriculture, Water and the Environment offered funding in 2020 under a 'Wildlife and Habitat Recovery Program' to help us understand the impacts of the fires on species of national significance. Along the east coast this includes the specialist wallum dependant frogs ('acid' frogs) and fishes.

Partnering with Griffith University, the Burnett Mary Regional group, Australian and New Guinea Fishes Association and Traditional Owner groups. A proposal was prepared to survey coastal areas for wallum species listed as threatened under federal and state legislations (Qld, NSW) to determine if there has been any change in local distributions and abundance due to the fires. Additional aims are to set up monitoring sites, prioritise critical habitat and make recommendations for future management of wetlands for recovery of species.

During the summer months of 2020-21, MRCCC staff and volunteers ventured out to discover the magic of wallum wetlands by night and carried out 55 frog surveys in Noosa, Cooloola and Burrum National Parks, including K'gari (Fraser Island). There are few records of the target frogs in the areas where we needed to search and, to help determine whether fire has an effect on frogs, we needed to survey paired sites (burnt and unburnt) under similar conditions and relatively close to each other.

Reconnoitres by day followed by the excitement (!) of knee-deep water and impenetrable vegetation by night was often

wetland was wet when a fire went over it, the frogs could refuge in the water, and this has been observed by some. But if it is only shallow, damp or dry then the options for staying safe are minimal to none.

The data is still to be analysed fully but initial indications show a slight drop in occupancy of all of the four species in burnt sites compared to unburnt sites.

Until the project end in December 2021 we will be looking into more information on the fire history of sites and the weather conditions before and since the fires as an indication of the refuge quality of the wetlands. We hope this helps us to make practical recommendations for those that manage our protected area estates. Some areas that could be considered are timing of controlled burns, subterranean water extraction that impacts on water tables, increasing condition and resilience of habitat within and around wetlands and improving connectivity to assist post-fire recruitment. In the meantime we can be content with providing a massive increase in known locations of these amazing 'acid' frogs of the wallum country.

We were also grateful to work with members of several volunteer Bushcare groups from Noosa. Such enthusiasm is encouraging and contagious!

exhausting but incredibly stimulating, especially when we eyeballed a small and cryptic frog clinging to a sedge stem or peering at us from a puddle.

The 'National recovery plan for the wallum sedgefrog and other wallum-dependent frog species' lists the threats that occur for the frogs including land clearing, wetland draining, weeds and ferals. After surveying Woodgate section of Burrum national park we could easily add 'drying climate' to the list and with that the increase in hot fires in summer. This area was not unlike a desert and recovery was slow. Out of 16 sites visited only one has any vestige of water and that was a spring. Other areas appeared to have recovered well with healthy vegetation and more free water at the surface of most (but not all) wetlands. We would expect that, if a

Target species		Status		
Common name	Scientific name	Federal	QLD	NSW
Wallum Rocket Frog	<i>Litoria freycineti</i>		Vulnerable	
Wallum Sedge Frog	<i>Litoria olongburensis</i>	Vulnerable	Vulnerable	Vulnerable
Cooloola Sedge Frog	<i>Litoria cooloolensis</i>		Near threatened	
Wallum Frolet	<i>Crinia tinnula</i>		Vulnerable	
Giant Barred Frog	<i>Mixophyes iteratus</i>	Endangered	Endangered	Endangered
Oxleyan Pygmy Perch	<i>Nannoperca oxleyana</i>	Endangered	Vulnerable	
Honey Blue Eye	<i>Pseudomugil mellis</i>	Vulnerable	Vulnerable	
Swamp crayfish	<i>Tenuibranchiurus glypticus</i>		Endangered	

# Gully Erosion Control



## in the Mary River catchment

Project completed June 30, 2021

BY Caitlin Mill, Bec Watson, Brad Wedlock



The MRCCC project team worked with graziers to remediate gully erosion on their properties to improve downstream water quality entering the Great Barrier Reef. The project provided extension support to the grazing industry to build capacity to better understand the causes of gully erosion and which remediation options are most appropriate.

A total of 102 graziers were engaged through project activities including on-ground projects, workshops and group activities.

The project also provided professional project design support coupled with financial incentives to undertake remediation of gully erosion projects using fencing or in-gully works such as porous check dams, geofabric drop structures or rock chutes. The financial incentive program provided the impetus for graziers to complete gully erosion control projects that directly improve water quality entering the reef.

Forty-one gully erosion control projects were implemented with 30 enterprises in the Mary River catchment. These projects have an estimated fine sediment load reduction of 1728 tonnes/year entering the GBR, which equates to over 50,000 tonnes saved by 2050. Sediment savings were achieved at approximately ~\$200/tonnes through this project. These efficacies were able to be achieved with significant landholder contributions totalling >5,000 hours as well as landholders contributing machinery, materials and cash.

*'Before the gully was fixed we were losing an amount of soil every time it rained because the water coming down the gully was just taking our soil basically down the Mary River and out on to the Great Barrier Reef. Now that not only affects loss of production on my farm, but it also affects the wildlife not only in the river but also in the Barrier Reef.'* **Mick Seeney (Sexton)**



**TOP LEFT** River Gully, Mary River at Tiaro – geofabric drop (two years after rehabilitation)

**ABOVE** Big Gully, Mary River at St Mary – rock chute and detention basin (10 months after rehabilitation)

**BOTTOM LEFT** Rock chute with diversion banks, Mary River Sexton, four months after construction.

The project has resulted in greater awareness in the wider community of gully erosion impacts on the GBR. It has also led to increased on-farm biodiversity in recovering gullies from active stock management, as well as water quality improvement for threatened aquatic species.

*'We've got some good foundations to work on now, because that's what we were after – was to try and be environmentally sound.'* **Brian Cavanagh (Miva)**

The MRCCC community and landholders have been very supportive of on-ground gully works. The community now has a better understanding of the importance of actively managing eroding landscapes to reduce sediment related impacts on the Mary River and GBR.

*I'd just like to thank the MRCCC for their support, you know the work they do is just tremendous. So if you have an opportunity, become involved because we have to look after our farms firstly, and also our rivers and also the Great Barrier Reef.'*

**Mick Seeney (Sexton)**

With funding support from:



Great Barrier  
Reef Foundation™

Goin' round the bend!

# Goin' round the bend!

Sometimes it is the obvious which is the hardest to explain. For example a river. We take for granted it flows from the highest point in a catchment downhill to the sea. The path is a long windy mysterious route through the landscape defined by geological history, soil types, flooding events and more recently engineered intrusions.

I asked my 12 year old who is learning forces in physics, how he might explain why a river just does not simply move directly down a hill to the sea. After some thought he said '*I guess there are two forces at play. A gravitational force and another which is greater than gravity*' which at that moment stops the water from naturally flowing in a more direct manner.

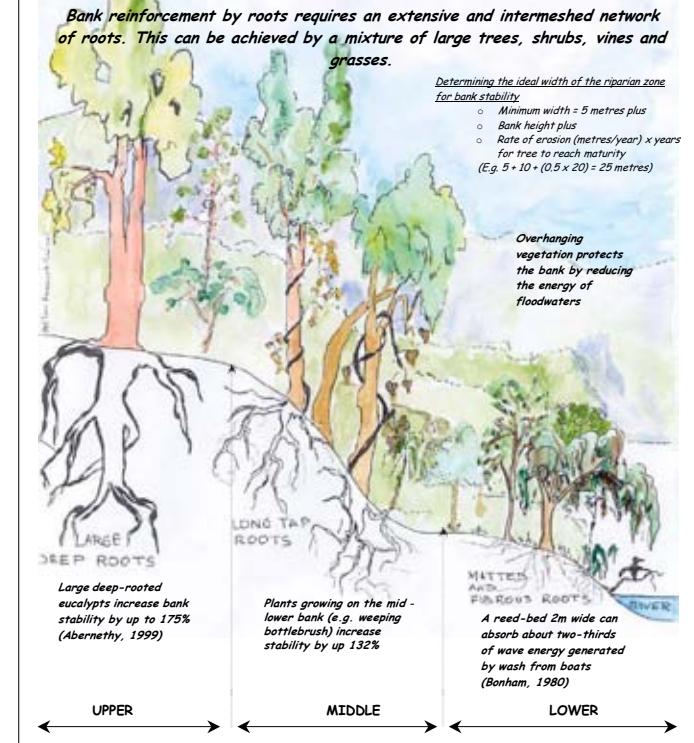
To take it further, watch how water freely flows across a seemingly flat lawn during steady rain. Little strips of debris start forming at right angles to the slope. These are in effect contours. As the water reaches this level contour it loses energy and drops debris creating a barrier for further flow. The water then moves sideways along the debris barrier instead of straight down the slope. So why does the water want to flow like this?

Looking closer still, you will notice how fast water flows round the outside of the bend in comparison to the inside bend. The faster the moving water the greater the energy it carries. If we then imagine this water channel is the Mary River, it is easy to understand how this high energy could erode outside banks in excess of 10 metres.

But why does water flow faster on the outside bends? This is because water doesn't flow in a straight line – it flows in a helicoil or circular motion downstream, moving from one side of the river channel to the other, while also moving from the bed of the river to the surface. Watch water draining from the bath through the plug-hole, the water circulates down the hole; in a river the same circular flow process occurs – but horizontally not vertically like in a bath plug hole.

In doing so, the water tries to 'slow' itself down naturally by circulating through the river channel. This process increases pressure on the outside bends causing erosion. As the water continues its helicoil motion towards the inside bend, the water slows and causes the eroded material to drop out of suspension – forming sand and gravel bars on the inside bend. The debris barriers in your lawn created during rain follow the same formation process, the water as it circulates across the lawn picks up the debris and drops it out again forming a barrier or contour.

## STABILITY & LOCATION OF SPECIES ON STREAM BANKS



A river bank with intact stream bank vegetation creates a 'roughness' which absorbs significant energy from the fast water. The energy is then channeled back towards the main stream. If the vegetation is removed or reduced, the banks experience the continued high energy erosive power of water and river channel widening and further bank erosion is experienced.

It is important to understand the huge role good streambank vegetation plays especially on these river bends. Next time you take a kayak on the river or a picnic on a sand bar, take time to ponder on these forces at play.

STORY BY **Bec Watson**



## 20 years of Waterwatch

CONTINUED FROM COVER STORY - BY Jess Dean

These trained scientists routinely record water quality data (pH, dissolved oxygen, electrical conductivity, turbidity and temperature) from 124 sites on a monthly basis.

The power of trained citizen scientists covering a large spatial area to record water quality data is truly invaluable. It would not be possible for monitoring teams or an organisation to cover this much ground on a monthly basis in a cost effective way. Thanks to over 250 volunteers throughout 20 years of Waterwatch, the MRCCC now has a significant long-term database for many waterways within the Mary River catchment. This data has informed eight different water quality guidelines within the catchment, all due to varying underlying geology or other naturally occurring influences. It is important to continue collecting water quality data to inform catchment management decisions, understand trends and even more so, to discover the answers to questions we don't know we're going to ask just yet.

Sunshine Coast Council and Gympie Regional Council are long term financial supporters of the MRCCC's Waterwatch Program. Council's support allows training of volunteers, ongoing logistical support and equipment maintenance.



## Home Park

BY Garth Jacobson

I first became aware of the role of MRCCC during the Traveston Dam proposal and was very concerned about the risks to the river. In 2013 Brad and Graeme ran a field day at Widgee on riparian fencing off-stream water for cattle, exactly what we were already doing at 'Home Park'. Brad was able to help us to do some further improvements eg a solar pump.

It was at this time I met Tanzi Smith and was asked to become involved in waterwatch. Our site was ideal as most of the major catchment streams, including Wide Bay, Munna, Gutchy. etc. join the Mary up stream of Home Park.

Our site has been a test site for The Department of Natural Resources Hydrology Section since the 1980 's when the Home Park gauging station was installed.

As we develop and revise our catchment strategy, the data collected by water watchers will prove valuable to various authorities in the management and preservation of the catchment and the Flora and Fauna that rely on it.

I also test a site on Gutchy Creek and like many others it has not had a flow this year. It will take a prolonged wet season to restore these streams to how they used to be with waterholes connected by a flowing stream.

## Magic Mary Moments

BY Des King

As a keen recreational kayaker from Gheerulla I have ready access to the Upper Mary River. I love it! Our family have been paddling on the Mary and its tributaries for about twenty years and when the opportunity arose for a chance to 'give back' via the Waterwatch Programme my partner, Colleen, and I signed up. That was about fifteen years ago, I think.

I am fortunate to have witnessed, from the water, a changing of attitudes by the general public and landholders regarding the importance of healthier riverine ecosystems; largely due to the effectiveness of the MRCCC's initiatives. *continued...*



*...from previous page*

We have paddled many rivers in the eastern states and none of them have matched the Mary in terms of the diversity of riverine wildlife; it's not even close! Two recent paddles from Walkers Rd to Tuchekoi (15kms) revealed Platypus sightings of six and eight respectively. Earlier this year I counted fifty turtles between Obi crossing two and the Mary confluence! I went back earlier in the morning a week later and counted twenty-five. They seem to like the noonday sun.

But this is only a couple of examples. If you were to paddle these waters you will likely see many fish species including lung fish; turtles; water dragons'; giant monitor lizards up to 1.4 metres long; many birds of prey; kingfishers; cormorants; wagtails; whibirds and the odd pelican, to name a few in an Avifaunal fiesta. Up here, the Mary has got the lot...in spades.

Over the years I have seen many interesting, and sometimes disturbing, things. A sobering fish-kill of thousands during a particularly dry spell just three kms upstream of my testing site at Moy Pocket. At other times, when the river was alive with fish jumping, once nearly into my kayak!

I feel extraordinarily privileged to play a small part in the care of this most valuable resource that gives so much pleasure.

## Water Watch program 2008 - 2021

BY Craig and Leslie Hanson

Craig and Leslie Hanson of Perseverance Property joined the Water Watch program on 3rd August 2008.

We think it was mentioned to us by Brad Wedlock and Graeme Elphinstone during a submission of a grant application for 'Improved Riparian Zone Management and Land condition' which was successful. We now keep our cattle off the creek banks.

Water Watch is like an addiction, you get in the groove, it becomes automatic.

It has been fascinating over the last 13 years seeing the creek flood and become bone dry and just listening to how many residents can tell you stories of drier times – but data does not lie. It becomes a great conversation starter.

Over the last 13 years we have seen less flood events and more months of back-to-back dry with the longest being 6 months of **NO** surface flow. Would be nice if all people not just those that live on the creek could respect the creek flow and maybe try less water greedy farming operations – give our creeks a chance to get back to life and have a yearly constant flow – this would be a good goal.



*We need to look after the creek as **WATER** is the life blood of our environment. No water, no flow end result is **DEATH.***

## How a river works – video style

One day several years ago, a group of us listened intently to a river specialist from Alluvium Consulting, as we viewed the Mary River from the top of an eroding bank 10 metres over the water below.

We were so captivated by the explanation of interrelationships that occur on up- and downstream from any one point; the way water flows in many directions under the surface during a flood, the tumbling on the spot of gravel bar material to depths of two metres, how meander bends migrate downstream in time, and the importance of 'tree armies' to stabilise the loose soils

of our river banks. We got to thinking about the many landholders we work with who have years of observation of river and creek movement, and their very well-informed ideas of the processes at play.

But the understandings and conclusions between people are not always in agreement so we thought it would be a good idea to tailor a series of videos to explain, from physics principals, how a river like the Mary operates. The video delves into water flow, the lay of the land, the material the land is made of and features that the water impacts upon as it makes its way along the channel.

The interactions between river components are what make our creeks and rivers dynamic and alive. Understanding how they work together can help us to make decisions that have desirable outcomes for the health of our local waterway.

The MRCCC and Alluvium Consultants (with technical creativity from InfoGrafia) are pleased to offer the first of a series of 'River Processes' videos that we hope will give people a new view of any waterway they spend time with.

*Click here to watch the video.*

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Your Environment Levy in action





# A review of the plan for Mary's water

**The Mary Basin Water Resource Plan (WRP) is currently under review by the Queensland Department of Regional Development, Manufacturing and Water.**

The state government plans to provide sufficient time to undertake extensive consultation and technical assessments, including taking into consideration new information about climate change

The MRCCC and many other organisations recently submitted comments, issues and observations on how the current WRP is working to the Department, recommending that they commit to full public consultation during the review process.

The MRCCC's submission noted that the Mary River is not a magic pudding that can satisfy the competing demands for urban water for the booming population of south east Queensland whilst sustaining irrigation industries in the catchment AND maintaining environmental flow objectives for the catchment's threatened aquatic species eg. Mary River cod and estuarine function to the Ramsar listed Great Sandy Strait under an ever-increasing hotter, drier, evaporative landscape.

Each Spring – Summer for the past few years the river has stopped flowing in key reaches. From October to November 2020, the majority of the river system was at cease-to-flow conditions, which was virtually unprecedented. The townships of Kandanga, Amamoor, Kilkivan, Woolooga and Goomeri are reliant on streamflow via their local creeks to provide town water supply. In October 2020, when Amamoor Creek stopped flowing, the town ran out of water, requiring water to be trucked in.

Of particular concern in the current WRP is a strategic reserve of 150,000 megalitres, which was written into the plan in 2006 to allow for the construction of the ill-conceived Traveston Crossing dam.

**There are currently approximately 161,000 megalitres of water entitlements in the Mary River catchment.**

If the strategic reserve actually existed and was activated, the river system, which is already in extreme stress, could not accommodate a doubling of water abstraction. The MRCCC is therefore calling for the strategic reserve to be scrapped.

The MRCCC's submission also called for the reinstatement of water advisory groups, regulation of groundwater reserves, integration of the WRP with the Australian Government's Environment Protection Biodiversity Conservation Act and recognition of the importance of the Great Sandy Strait and its dependence on the Mary River system.

In the context of an anticipated drier and more evaporative climate, the increased demands being placed on water from the Mary River are extremely concerning. To guarantee water security, all levels of government and industry need to include alternative water technologies, including potable water recycling (waste water being the only water source increasing as population grows), desalination (with energy demands being met by solar), rainwater tanks and vitally important demand management through water use efficiency.

**Visit the MRCCC's website for a full copy of the submission.**

# A strategy for Mary's future

The world has changed since 1998 and the MRCCC is now in the process of reviewing the Mary River Catchment Strategy to set its priorities for the next decade. The Mary River Catchment Strategy was released in 1997 by the then Primary Industry Minister after years of community consultation.

The Catchment Strategy has stood the test of time, witness to the vision of those who helped to formulate this strategy over 20 years ago.

Since the early CSIRO modelling in 2002 it has become apparent that erosion from our riverbanks and gullies has contributed

vast amounts of sediment flowing out to the Great Sandy Strait and heading north to threaten the southern Great Barrier Reef. There have also been substantial changes to the rural economy with significant declines in dairying since deregulation in the early 2000's, more recent growth in macadamia production, an emphasis on local food production and an increase in the adoption of sustainable forms of agriculture.

One big issue that was not identified in the original strategy is climate change and how the community can adapt to the

predicted changes to seasons while the whole community is increasingly focused on reducing their emissions to mitigate the global threat.

The committee is keen to get input from all sectors who benefit from and help manage the catchment. The wider community is also invited to be involved in the review.

A copy of the draft Catchment Strategy can be downloaded from the MRCCC's website: [www.mrccc.org.au/publications](http://www.mrccc.org.au/publications).

For more information, or to submit your feedback, send an email to [admin@mrccc.org.au](mailto:admin@mrccc.org.au)

## Freshwater crayfish

### Seven threatened freshwater Queensland crayfish protected

In April 2021 the regulations listing species protected under the Queensland Nature Conservation (NCA) Act were updated, the Nature Conservation (Animals) Regulation now including seven species of freshwater crayfish previously unprotected under the NCA Act.

Without appropriate permits, take of these crayfish is now illegal under this act. Of the seven crayfish, one is now listed as vulnerable, four as endangered and two critically endangered.

One of the endangered species is the giant spiny crayfish (*Eustacus hystricosus*), sometimes known as the Conondale spiny crayfish. This crayfish has a limited range in southeast Queensland, which includes parts of the Mary River catchment. It normally occurs above 400 m in cooler permanent waterways fringed by either vine forest or wet sclerophyll forest, and is recorded in Bellthorpe, Conondale and Kondalilla National Parks.

So, what more do we know about this crayfish? There are three genetically distinct populations. It releases young in November or December, these taking around seven years to reach maturity in the wild. Larger individuals could be 30 years or older and reach weights in excess of 2 kilos. It is easily Queensland's largest freshwater crayfish and one of the largest in the world. Past threats



include, feral pigs, gold mining and logging in the Conondale Ranges and clearing of riparian vegetation in the Maleny area.

Current threats include illegal take and continued degradation of riparian habitat by feral pigs. The current restrictions on land clearing along waterways are expected to be beneficial to this crayfish outside national parks. If appropriate hygiene protocols are not followed, illegal or legal take is an ongoing risk of lethal water borne pathogens like the 'crayfish plague' establishing in wild populations.

Climate change is an emerging threat. Any changes to rainfall levels and patterns and a rise in temperatures could pose a serious risk to this crayfish, which is 'cool water' adapted and requires permanent waters to breed. In the past this crayfish has been extensively studied in the Conondale Ranges by State Government researchers. Some of this research has been published, but more is about to be submitted for publication.

# Partnership to promote industry best management practice



## MRCCC, Seqwater and the Dairy Industry partnership helps keep dairy effluent from waterways

STORY BY **Kath Nash**

Organised by Kath Nash for the MRCCC, experts in the field of dairy effluent gave presentations to Dairy Farmers in the Mary River catchment. National dairy effluent expert, Scott McDonald from Agriculture Victoria, gave an outline of the principles and practices that are important in effective effluent management. Tim Odgers, Senior Planner from Seqwater, spoke of the importance of partnering with industry to maintain water quality. Ross Warren, Senior Extension Officer from the Qld Department of Agriculture and Fisheries gave many examples of his experience in effluent management at a local level.

The workshop was well received by Dairy Farmers in the Catchment and our industry partners with over 30 people attending. The attendance was a testament to the Dairy industry's commitment to best management practice and River Stewardship. One of the participants stated; *'It was great to see a good number of dairy producers represented, along with supporting industry people. It was a positive day for the dairy industry, along with Seqwater. We all need to be responsible with regard to the management of effluent waste to our immediate surroundings and the long-term management of our waterways.'*

Elke Watson, Chair of the Sunshine Coast branch of Subtropical Dairy believes the dairy industry is fortunate to be working

in partnership with the MRCCC and Seqwater. *'The collegial approach adopted by Seqwater and the MRCCC achieves greater outcomes than big stick diplomacy, and Seqwater's commitment to work closely with landholders living and working along the Mary River to achieve sustainable and productive outcomes should be commended,'* said Elke.

The workshop focused on Dairy Effluent Best Management Practice (BMP) in the Mary River catchment.

### Benefits of reusing effluent on farm

The economic benefit for the farmer of reusing effluent on farm is marginal, especially considering the cost to install and maintain the components of an effluent management system. However, the Dairy industry knows that the benefit of keeping effluent on farm, goes far and beyond farm economics. The Dairy Farmers in the catchment are our River Stewards and are very keen to ensure water quality in our creeks, rivers and groundwater is not compromised.

### Benefits for public health

Tim Odgers, from Seqwater said *'the Mary River supplies drinking water to the Kenilworth and the Noosa Shire communities. There are drinking water off-takes at Charles Street Park in Kenilworth and another one further downstream at Kandanga. Effluent entering the drinking water supply is a high risk to water quality and public health. The treatments*

Dan Cork (Dairy Farmer-Maleny), Elke Watson (Dairy Farmer - Conondale) and Stephan Tait (Dairy Effluent System Designer)

*costs to remove pathogens from drinking water is exorbitant, which is why Seqwater are working in partnership with landholders to limit pathogens entering our waterways at the source'.*

### Methods for separating solid and liquid effluent – Trafficable Solids Trap (TST)

Trafficable solids traps are used to separate the solid and liquid components of the dairy effluent. The traps enable a farmer to drive down a ramp with a tractor to retrieve the solids for composting and spreading. The liquid drains into a sump where it can be pumped or gravity fed for irrigation. The reuse of effluent on farm improves pasture and soil condition.

### Designing a Dairy Effluent Management System - No Dairy farm is the same

Every farm has unique features when designing a dairy effluent management system. This is made easier with help from experts in the field. The hardest part with effluent design is figuring out which components to incorporate and the best locations for them. Topography, dairy layout, proximity to neighbours, access to electricity, herd size and feed type are just some of the things to consider.

The liquid effluent can be applied to pasture in various ways for example direct application onto pasture with appropriate withholding periods for stock. It can also be pumped or gravity fed into a settlement pond, where it can be mixed with freshwater to be irrigated via solid set, travelling or centre pivot irrigation systems. Some irrigation systems need to be reconfigured to accommodate the liquid effluent. Underslung poly-pipe is an example that has been used to good effect on centre pivots.

### Local Case Studies – Effluent Management Plans for local dairies

Kath Nash from MRCCC presented a couple of Effluent Management Plans which are currently being implemented in the Kenilworth region. The participants provided feedback that they enjoyed

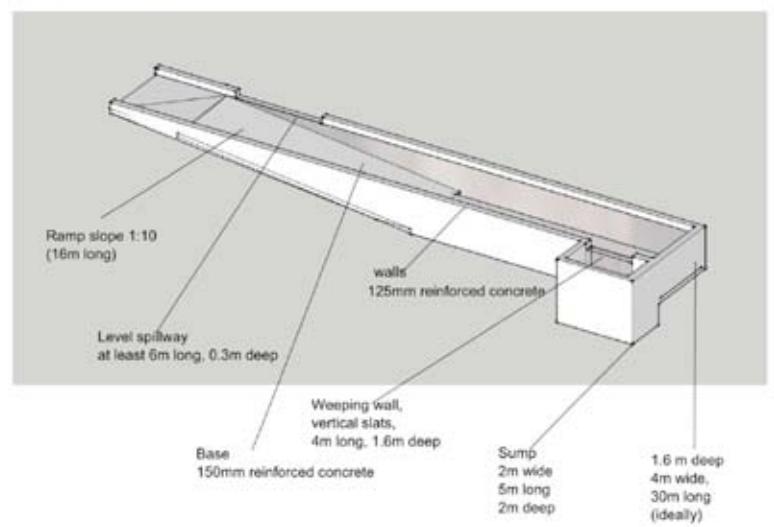
seeing local dairy farms as examples and appreciate the opportunity for peer to peer learning. Kath stepped through some of the issues with on-farm effluent management and how these issues were resolved and resulted in practical solutions for each farm.

Kenilworth Dairy Farmer Sara Bucher stated 'I learnt a lot from hearing and seeing the case studies presented. There are some opportunities with using more effluent 'gold' on our dairy farm, further sessions could be a good chance to learn more about this'.

If you would like to know more about Dairy Effluent Best Management Practice go to our website: <https://mrccc.org.au/what-to-do-with-moo-poo/> to view Scott McDonald's talk from the day.

The MRCCC is developing a network of local Dairy Farmers to enable sharing of experiences about best management practice through farm-walks, workshops and action learning. If you would like to know more, email Kath via [kath.nash@mrccc.org.au](mailto:kath.nash@mrccc.org.au)

Concept Diagram



Concept Diagram of a Trafficable Solids Trap (TST)

## LoriKeet Paralysis Syndrome (LPS) Project

### Background to the project

LoriKeet Paralysis Syndrome (LPS) is a disease occurring in wild rainbow lorikeets (*Trichoglossus haematodus*) that causes the birds to become paralysed and unable to fly. This disease is seasonal, occurring between October and June, with the highest number of cases occurring in December through to February. It results in thousands of rainbow lorikeets being admitted into care in south-eastern Qld and north-eastern NSW every year. Rainbow lorikeets with LPS initially require intensive care followed by long-term rehabilitation, wearing on the resources of both veterinarians and wildlife carers.

Research into this disease have been unable to identify an infectious agent or toxin as the causative agent of LPS. Therefore, the cause of this disease at this stage is unknown. However, researchers are now exploring the possibility that LPS may be caused by ingestion of a toxic plant that occurs in southern Qld and northern NSW.

### How to get involved:

We require citizen scientists, like you, to report observations on the LoriKeet Paralysis Syndrome Project on iNaturalist

<https://www.inaturalist.org/projects/loriKeet-paralysis-syndrome-project>



Report observations of what plant species/food sources the rainbow lorikeets are observed feeding on within the study site. Our objective is to collect as many observations from people in and around the southern Qld and northern NSW area as possible about the plant species which wild rainbow lorikeets are feeding on. This will assist in identifying what plants or other food sources researchers should sample and test in further studies.

You can learn more and keep up to date on the LPS Project here:  
<https://www.sydney.edu.au/science/our-research/research-areas/veterinary-science/loriKeet-paralysis-syndrome-project.html>

### Tell us when the Rainbow Lorikeets return to your tree!

To help us determine what rainbow lorikeets are feeding on at different times of the year, and to save you adding new observations of rainbow lorikeets feeding on the same tree, you can simply EDIT your observations!

After you have made an observation of a particular tree/plant species on iNaturalist, you can simply edit your observation to add in new dates and times you have observed the rainbow lorikeets coming back to the same plant.

If you find injured wildlife, please call ANARRA Gympie-Wide Bay 5484 9111 • or Wilvos Sunshine Coast 5441 6200



# Student Workplace Learning Program

10 years ago we started to work with the Sunshine Coast University to embark on a Student Workplace Learning Program. This was triggered by our own internal conversations, and a young student, Jono Hooper, who shared a passion for frogs and started joining us on our monitoring surveys for the Bruce Highway Section B construction.

Later in 2012 Jono officially became our first Work Placement student and completed more than his obligatory 96 hours to gain credit through the University system. He completed his Honours on the impacts of urban noise and lighting on Wallum frog species and now works for a consulting company on the Sunshine Coast, has been President and current Editor of the Qld Frog Society, has developed a fabulous on-line frog identification key for our area (Frog ID Key) and many other involvements for the protection of species and ecosystems.

The program has been continuously supported through funding from the Sunshine Coast Council's Environment Levy partnership program.

Field experiences, office tasks, meetings, landholder interactions, data management are just some of the activities we strive to have students involved in.



To date we have hosted 18 students and employed 5 of those to long-term staff positions (Caitlin and Jess in 2015 and 2016, Sarah in 2019, Shaun in 2018 and Alana late last year). All remain but Shaun who needed to move to Brisbane. Others have gone on to further study or to various jobs around the country. We like to think that the experience they gained with us continues to give them a broader view of their work and helps them to produce high quality outputs with more impact for natural and human-managed environments.

On the other side of the coin are the contributions the students bring from their past and the opportunities they create for our own learning, our interactions with educational institutions and the richness of the MRCCC as an organisation.

We welcome our very recent student, Becca McBride. She has recently completed a traineeship with Noosa and District Landcare and is currently studying Environmental Science at the University of

Alana Ebert, Becca McBride and froggy friend, Jono Hooper, Alana at the desk, and Olly Scully

New England. She has a rich background including foreign language teaching, hospitality, horticulture and an Arts Degree. We recognise that all experiences are valuable and help to develop people that can communicate, empathise, enquire, problem solve and are creative in their day-to-day interactions. After only a few interactions with us, including experiencing a General Meeting, she realises that her change of direction from Arts to Environmental Science is fully legitimised!

**STORY BY Eva Ford**

**PROGRAM PROUDLY SUPPORTED BY**





# Traveston Crossing

Just on fifteen years back, this previously insignificant crossing of the Mary River was thrust into the national spotlight when the state government announced plans to build a large dam there. It turned out the Premier was a tad over-exuberant, announcing that '*the bulldozers would be rolling by Christmas*', but of course, three and half years later, there was a much different ending to the story.

Today Traveston Crossing, scene of several canoe floatillas during the dam campaign, not to mention a number of well-supported public rallies, is back in the news again. No, not another dam plan, this time it's as a result of environmental destruction of a quite different kind.

Long before the 2006 dam announcement, the Mary River at Traveston Crossing had been a popular spot for locals to swim, picnic and kayak. Although it was private land, the landholder was happy for families and individuals to access the river through his property. Ultimately, as part of the dam scenario (the wall was going to be just upstream), the land found its way into the hands of the state government.

After the federal government vetoed the dam under its EPBC legislation, a number of parcels of land were offered to the (by then) Gympie Regional Council but Council were not interested in taking control of the Traveston Crossing land and it remained with the state government, first with DPI and later with DAF, the Department of Agriculture and Fisheries.

During this time, a car park was prepared on the site, delineated neatly by bollards, leaving just a small walk down to the river, much as it had been for years. The bollards proved to be nothing but an easily-overcome challenge for ever-increasing

numbers of 4WDs who drove first to the river and then proceeded to make a maze of tracks and trails across the site, being particularly attracted to tearing up and down steep banks. Some it would appear were in search of more adventure so it wasn't long before they created a veritable highway, albeit submerged, across and along the river and to the privately owned parcels of riverbank land.

Some drove repeatedly across and along the river as it acquired a reputation as a place to wash your car after driving on the beach.

More than all this though, it became far more popular than it had ever been previously, as a place to camp, with it being listed on networks of camping spots that were free despite having no facilities.

Regular day visitors and families to the site began to complain of the broken bottles and the endless shallow scrapes adorned by toilet paper, generally not all that far from the water. More significantly, long term visitors to the site were concerned for their safety and the safety of their children from vehicles speeding through the river and along the riverbanks, with little or no regard for children swimming or playing nearby.

By night at weekends, many vehicles were gathering at the site for what was invariably described as '*hooning and anti-social behaviour*'.

Earlier this year, a vehicle was left abandoned after it ran out of fuel or malfunctioned. When the owner returned a few days later, he discovered his vehicle had been torched and totally burnt out. The following weekend it was overturned, more fuel added and re-ignited - a mess of broken glass, melted plastic, rubbish and a car body etc left behind for somebody else to clean up.

So the MRCCC held its Clean Up Australia Day activity at the site this year soon after these conflagrations and it was plain that something had to be done, that the degradation was ongoing and increasing.

An on-site meeting was convened with representatives of DAF, the Department of Environment and Science (the site was a known nesting place for endangered turtles), the Council, local police and local representatives such as the Save the Mary River Group.

The consensus was that the site be '*closed to vehicles for regeneration*' with the erection of a fence and signage indicating there be no further vehicular access and no camping. Pedestrian access to the site will still be allowed, with plans to retain a parking area.

**STORY BY Ian Mackay**



# Mary River Month



Mary River Month will commence with the Big Jump on **World River's Day**, Sunday the 26th of September 2021, and will conclude on Thursday the 11th November – the anniversary of that fateful day when Peter Garrett said 'no' to the Traveston Crossing Dam.

One of the highlights of Mary River Month is the MRCCC's highly successful **Spring in the Mary Photo Competition**, with cash prizes courtesy of the Burnett Mary Regional Group, Bos Rural at Kandanga, Noosa Landcare and the Greater Mary Association. Categories include the Open section, Junior, Wildlife, Rural, Saltwater and People's Choice.

Contact the MRCCC for a copy of the entry form and get your entries in by Friday 5th of November! Click on the link to view the winners from the 2020 Spring in the Mary competition. Send your entries in to: [springinthemary@mrc.org.au](mailto:springinthemary@mrc.org.au)

The **MRCCC's 19th annual Catchment Crawl** will travel the river over the 5th and 6th of October, testing water quality including nutrients and E.Coli.

Riparian condition assessment and photo monitoring is also undertaken at each of the 36 sites. The data gathered over the 2 days is used to provide a snap shot of water quality in the river, and to enable trends in water quality to be observed.

The **MRCCC'S AGM** is heading out of town again this year to the Goomboorian Hall. The Goomboorian area to the east of Gympie has a diverse agricultural and horticultural history, including beef cattle, grain farming, fruit, vegetables and macadamias. The Goomboorian area

also provides habitat for a range of native wildlife including the vulnerable koala and the endangered Mary River cod.

This year's **AGM Guest Speaker** is Sue Bestow, Senior Adviser at the Office of the National Soils Advocate. Call MRCCC on 5482 4766 to RSVP.

Join in with the **Hinterland Bush Links** – Roving Restorers on Friday 22nd October at Gap Road, Moy Pocket and/or try your hand at **Cat's Claw weaving** on Saturday 23rd October.

RSVP to Ian Mackay, 0455 031 952.

Or you could come along for a **Land for Wildlife** walk and talk with Marc Russell at Madill Road, Tandur on Saturday 23rd October. Contact MRCCC for details.

MRCCC is also hosting a **Cat's Claw creeper information day** at the Six Mile Rest Area south of Gympie on Thursday 28th October. Come along and learn about CCC control and help free a tree!! RSVP to MRCCC.

On Saturday 6th November we will be celebrating 20 years of **Waterwatch** with a BBQ at MRCCC, then hosting a **Film Night** on Saturday 13th November screening the In Retrospect documentaries. RSVP's for both activities to MRCCC please!!

And if you have an activity you would like included in this year's Mary River Month calendar, please get in touch!

Following are the winners of this year's **Spring in the Mary Photo Competition**.

Congratulations to all of our winners and well done to all of our SITMPC entrants! Our judges were Bob Simpson Landscape Photography and MRCCC Chairman Ian

Mackay, who had their work cut out for them – the talent was just too great! A huge thank you to our judges, sponsors and everyone that sent in their votes for People's Choice! We look forward to seeing your snaps next year! Shown here are a selection of the 2021 winners.

## 2021 Winners List

### OPEN WINNER • 1

'Spring Storms' – Michelle Honey

### OPEN RUNNER UP • 2

'Flower Bed' – Paul Vallier

### OPEN HIGHLY COMMENDED • 3

'Sunflower Storm' – Dani Clifford

### JUNIOR WINNER • 4

'Bee Collecting Pollen' – Eli Gurnett

### JUNIOR RUNNER UP • 5

'Whisp' – Jade Currie

### JUNIOR HIGHLY COMMENDED • 6

'The Serenity' – Thys Benade • 6A

'Are you looking at me?' – Oscar De Blois • 6B

### WILDLIFE WINNER • 7 - 'Going cross-eyed (Emerald-spotted tree frog)' – Shanna Bignell

### WILDLIFE HIGHLY COMMENDED • 8

'Kingfisher at Borumba' – Nikki Coombs

### RURAL WINNER • 9

'Amy's Lambs' – Jocelyn Pope

### SALTWATER WINNER • 10

'Wrapped in fog' – Debbie Polley

### PEOPLE'S CHOICE • 11

'Platypus at Dawn' – Nikki Coombs



10

7



11

1



6A

## Friends of The Mary-Wandering Weeders

Help is urgently required! It is very disheartening to see the destruction of many of the young trees, planted with such enthusiasm along our beautiful inner city Mary River Walk in Gympie.

Who or what is killing them?

Neglect: the lack of ongoing maintenance is allowing rampant weedy vines to smother, break and kill young trees. While we wait and hope for some official action, our very small group of volunteer weeders meet once a month to try to save what we can.

People see us and say, '*Good on you!*' But few offer to take this opportunity to save this area from the very real possibility of being destroyed.

If we had enough help, people need come only when they can, but a working group of 10 reasonably fit people could make a world of difference.

We meet on the first Saturday of the month at 7.30 in summer, do a couple of hours, then share morning tea and have a chat. If you think you could help us in some capacity, please contact:

Graham on 0418 151 049 or Rahima Farnham on 0427 479 372.

# Who are we at MRCCC?

## The Mary River Catchment Coordinating Committee (MRCCC)

is a non-profit, non regulatory community organisation formed in 1994 to address issues facing the river on a whole of catchment basis, involving all those who have a stake in the river system, including representatives from 27 government, industry and community organisations.

Today, collectively, the MRCCC reaches out to thousands of catchment residents through our stakeholder delegates, landholders and associated networks throughout the Mary Catchment, which encompasses an area of approximately 10,000 km<sup>2</sup>.

Over the past 25 years, the MRCCC has successfully developed and implemented projects aimed at improving waterway health, aquatic biodiversity and adoption of best practice land management for the Australian government Departments of Agriculture and Environment, local government across the Wide Bay and Sunshine Coast regions, state government, regional organisations and industry groups.

Implementing best land management practices, managing stock access to waterways, installing off-stream watering points, removing woody and vine weeds and revegetating with local native species are key on-ground projects for the MRCCC and landholders we assist.

### The benefits of working with MRCCC include:

- Proven ability to identify regional issues and deliver programs that achieve high quality outcomes;
- Relationships developed with community groups, networks and primary producers;
- Project funds are invested back into local communities and multiplied by landholder investment;
- Access to catchment information and extensive expertise;
- Skilled staff overseen by a committee with wide sectoral representation;
- Collaboration with a broad range of stakeholders.

We offer basic creek, dam or bore water testing for horticultural or agricultural suitability, native flora, fauna, weed and pest identification and control, and a range of educational materials in relation to river management.



### Integrated Catchment Management

An approach which recognises the catchment or river basin as the appropriate unit for research on ecosystem processes for the purpose of managing natural resources in a context that includes social, economic and political considerations.

Bowden, W. (1999) from Integrated catchment management rediscovered: an essential tool for a new millennium.

#### The MRCCC Resource Centre

- Located at 25 Stewart Terrace, Gympie
- We are open Monday to Friday 9-4 pm
- Call us on: 07 5482 4766
- Email us: [admin@mrcce.org.au](mailto:admin@mrcce.org.au)
- Visit our website: [www.mrcce.org.au](http://www.mrcce.org.au)
- Find us on Facebook

