



# Wild about the Nut

**Ian McConachie: Wild Macadamia Conservation grows into its next phase to preserve this iconic Australian nut.**

Who had a Bauple nut in the back yard? The macadamia is an Australian icon only native to northern NSW and SE Queensland and one of only a few successful Aussie plants to be grown in much of the world.

If you grew up around Southeast Queensland you would remember the bruised fingers and crafty methods used as kids to gain entry into the much-loved nut. My older brothers used to swindle me out of my nuts, by telling me, ‘that one’s no good’, then gobbling it up in front of me. So I was feeling like a nostalgic kid when I sat to talk to Ian McConachie (recognised with an Order of Australia no less).

In his youth, Ian’s Aunt Madge, who lived at Mt Coot-tha, fuelled his interest in this very tasty nut. She assured him, “One day, Queensland Nut trees will be famous.” Little did she know Ian would become a pioneer in his field for over 60 years, recently publishing ‘The Macadamia, Australia’s Gift to the World’, a book which follows the development of the industry, its cultural importance and critically, the need for conservation of the species.

In the early 70’s the macadamia was an emerging crop here producing just 30-40 tonnes of nuts in shell each year. We have the Hawaiians to thank for the highly successful commercialisation of the crop and re-introducing it to Australia where we now produce 60,000 tonne per annum - a figure that is just a drop in the ocean compared to international production with competitors like China and South Africa.

During his early career as a food scientist, Ian was curious how the nut originated, learning that at least 80% of the four native species has been lost since European settlement. Living in Gympie Ian and wife Jan experimented growing the trees, either from seed or grafted stock since visitors, knowing his fascination, kept dropping off various specimens that were ‘great croppers’ or had desirable traits.

In 1982, the McConachie’s were given 220 plants from an industry plant breeder who had surplus seedlings believed to be from good parents. They decided to plant them all quite close together, thinning out the least viable over time, ultimately reducing the number of trees to just 2 finalists.



They registered the breeding rights of these two tenacious trees, donating the royalties to the Macadamia Conservation Trust. Over \$2M in proceeds later, Ian had established the funding income needed to continue his life’s work of conserving wild macadamia populations.

What is interesting to discover is the diversity - or lack of diversity of macadamia in the wild. There are five known clades (a group of trees that are composed of common ancestors) and the wild populations from Maleny to Bauple have similar genetic associations.

In July 2025, the Macadamia Conservation Trust became Wild Macadamia Conservation (WMC), an independent charity and registered environmental organisation dedicated to supporting and conserving Australian wild macadamia trees and their native habitat.

WMC has recently appointed Tina Raveneau as their part time project officer based in Tiaro to identify and engage with stakeholders to protect macadamias, initially in the Fraser Coast region.

Since colonisation, it is estimated that 80% of macadamia habitat has been cleared in the Mt Bauple area with remnants only remaining in gullies and flats. An early form of cultivation was to chop a whole fruiting tree down at the base, fill the back of a dray with nuts and cart them to market. Perhaps sustainability was not a term yet coined in this new land of plenty.



Signage since 2025 designed to educate the community about the endangered Mary River cod, its significance to First Nations people, breeding habits and the fishing closure upstream of the junction of Six Mile Creek and the Mary River to the south of Gympie, from August 1st to October 31st.

Developed by the Queensland Government in collaboration with stakeholders throughout the catchment, it is hoped the signage will go some way to improving awareness and education to help save this iconic top order predator, once described as the Bengal Tiger of the river system.

**Endangered! Mary River cod**

**Mary River cod need your help!**  
 Habitat damage, introduced species and overfishing have significantly reduced populations of this iconic fish.

**The way they breed makes them vulnerable**  
 If adult fish are disturbed during breeding season, future generations can suffer. If a male protecting his nest is caught or distracted by a lure, the eggs will be eaten by predators.

**Follow the rules!** \* FINES APPLY  
 NO FISHING for Mary River cod in Queensland fresh waters – it is a NO-TAKE species  
 NO LINE FISHING in Mary River and adjoining waterways (upstream of Junction with Six Mile Creek) during breeding season – 1 AUGUST to 31 OCTOBER  
 \* Exceptions apply in some stocked dams

**Find all the rules on the Qld Fishing 2.0 app**  
 Report illegal fishing: ☎ 1800 017 116

**On Country: land, sea and sky**  
 Moonaboola (Mary) River catchment

**In language: 'Mary River cod'**

Butchulla	'Duguu'
Kabi Kabi	'Dokko'
Jinibara	'Bumgur'

Mary River cod holds immense cultural significance for the Butchulla, Kabi Kabi and Jinibara First Nations communities.

This fish was uniquely tied to the ecosystem and to these peoples – and it was strictly forbidden to harvest it during the nesting period.

Photographs by Guntha Schmidt

Logos: BMRG, Sunshine Coast Council, Queensland Government

The Wild Macadamia Project will incorporate a Citizen Science aspect, seeking landholders' support to locate significant trees, resulting in greater community awareness of the genetic importance of wild macadamias and their legacy.

It will also highlight the relationship between wild and backyard macadamias. Surveyed trees will be DNA tested to understand their genetic history to give a better understanding of the species' movement over time.

There are many indigenous stories still to be recorded to capture the significance of macadamias for first nations people. Ian's book details some marvellous nut cracking techniques involving an anvil stone with a dip to hold the nut – then a flat stone and hammer stone for a clean break.

In Amamoor Creek in the Mary Valley, a small population of macadamias has DNA markers similar to trees found south of Beenleigh. This indicates the nuts were transported up the coast possibly for the first nation peoples feasts as the trees are pollinated by native insects and bees and are not particularly successful at wind pollination.

Commercial crops do cross pollinate with wild species risking the dilution of wild macadamia genetics, making it even more important to preserve what we have.

Preservation is fundamental, as the health benefits of this remarkable nut are yet to be fully explored. Furthermore, there is much to be discovered regarding the cultural significance and commercial potential of macadamias—specifically in developing new varieties resilient to climate change.

The wild macadamia project also offers significant tourism and educational value through school programs and guided visitor tours.

Building on this success, the long term Strategic Plan goals will be expanded to further extend conservation goals south through the Mary Valley and into northern New South Wales. This expansion will allow WMC to create a comprehensive conservation map and in protecting wild macadamias in all ways.

For more information, visit <https://wildmacadamia.org.au/>

Image front cover:

Ian McConachie shows the girth of the Walter Hill Macadamia Tree, planted in 1858. This tree, *Amacadamia integrifolia* seedling was planted by Walter Hill, the Superintendent of the Brisbane Botanical Gardens in 1858. It originated from a wild macadamia tree in Southeast Qld rainforest and is believed to be the first macadamia tree planted by caucasians. It represents the birth of the world macadamia industry.



Wild Macadamia Project Officer Tina Raveneau



# Cracking the Cod

## National experts gather to save an endangered icon

### On a warm spring day, the Hinteroosa Hatchery became the epicentre of Australian freshwater conservation.

Hosted by Darren Knowles at his Cooroy property on September 12, 2025, the inaugural “Codference” brought together a powerhouse of minds: interstate researchers, local councils, fish-stocking groups, hatcheries, department fisheries staff, and passionate local cod enthusiasts.

Organised by Tom Espinoza of the Burnett Mary Regional Group (BMRG), the event aimed to cross-pollinate ideas between experts working on Australia’s four distinct freshwater cod species. The ultimate goal? To gauge how our local, endangered Mary River cod is faring against its interstate cousins.

#### The Big Four: Australia’s Cod Royalty

Australia’s freshwater systems are home to four distinct cod species, each facing its own unique battle for survival. Visiting experts brought a wealth of data, hard-learned lessons, and a few surprises to the table.

**The Eastern Cod (NSW):** Native to the Clarence River catchment near Grafton, NSW. Gavin Butler from NSW Fisheries highlighted the steep uphill battle for the Eastern cod, which currently suffers from low genetic diversity and a highly restricted footprint in the Clarence River catchment. While attempts have been made to reintroduce them to the nearby Richmond River—a habitat that looks perfect on paper—recruitment has so far been limited.

**The Murray Cod (VIC):** The giant of the Murray-Darling Basin, spanning QLD, NSW, VIC, and SA. Jason Lieschke from Victoria’s Department of Environment shared insights from their long-term captive breeding and restocking program. Jason’s biggest takeaway for species conservation? Persistence.

“Some years are wildly successful for fingerling recruitment, and others are a bust,” Lieschke noted. “You just have to keep going, knowing some years will be better than others.”

Crucially, the Victorian Government doesn’t just dump fish and walk away; they heavily invest in regular post-stocking surveys to track survival rates—a gold standard for management.

**The Blue-nosed Cod (ACT/NSW):** Found in the Murrumbidgee River across NSW and the ACT. Brendan Ebner of NSW Fisheries turned traditional cod logic on its head. While most cod species are obsessed with timber and hollow logs for spawning, the Blue-nosed cod prefers rocky substrates. Ebner’s team is currently working with the ACT Government to build “backup” populations in Canberra’s reservoirs, utilizing rocky structures to trigger spawning.

**Mary River Cod:** The top order predator of south east Queensland’s Mary and Brisbane River catchments. The Mary River Catchment Coordinating Committee (MRCCC) took centre stage to showcase 30 years of grassroots recovery action. The presentation highlighted a massive community awareness campaign that elevated the cod’s plight from an obscure issue to a regional priority.

The MRCCC also spoke of the major success of their custom-designed “cod-logs”—engineered timber structures introduced into waterways to provide critical breeding habitats that have been lost to land clearing.

Presenting the latest catchment-wide data, Luke Carpenter-Bundhoo (Griffith University) and Dave Sternberg (BMRG) revealed that the Mary River cod has retracted back to its core historical reaches. This mirrors the findings of DPI Fisheries scientist Bob Simpson back in the 1990s.

Their updated distribution model delivered a clear message to landholders: if you want cod, you need healthy riverbanks. There is a direct, undeniable link between good riparian vegetation and cod presence.

Perhaps the most striking revelation of the Codference came from recent genetic testing. A study by Peter Unmack of the University of Canberra revealed that the Mary River cod actually boasts a reasonably healthy level of genetic diversity.

More surprisingly, data showed that the cod found in the Brisbane River share nearly identical genetics to those in the Mary River. The takeaway? They aren’t just local anomalies; they are, and likely always have been, a unified “SEQ Cod.”

#### The Verdict: “Do What You Do... But Do More”

When the brains trust looked at the recovery efforts of the Mary River Cod, their final recommendation was simple: Double down.

The blueprint for the future is clear. To secure the survival of this iconic species, south east Queensland needs to continue its current trajectory but amplify the volume:

- 1. More community engagement to foster local pride & awareness.**
- 2. More habitat restoration (and more cod-logs!).**
- 3. More fingerling production and structured monitoring.**
- 4. More seamless collaboration between government, science, and the community.**

The Codference proved that while the river systems might be divided by state borders, the passion for saving Australia’s freshwater titans is entirely unified.

ARTICLE BY Brad Wedlock, Operations Manager

# Guardians of our waterways



## Revitalising the Munna Creek Waterwatch Program

The Munna Creek subcatchment in the north west of the Mary has a totally different character to the rest of the catchment. It is rugged and peaceful, grazing is the dominant land use and it also provides habitat for the critically endangered White-throated snapping turtle.

The long-running Munna Creek Waterwatch program is an integral part of the catchment-wide MRCCC Waterwatch program. Established in 2001, it brings together local grazing landholders and community members who monitor water quality across the Munna Creek sub-catchment—an area covering 15% of the Mary River system. Volunteers collect data from their properties, helping to build a long-term picture of water health.

This program is important because water quality directly affects river ecosystems, agriculture, and downstream environments, including the southern Great Barrier Reef. Consistent, local data allows scientists and landholders to detect changes, identify pollution sources, and improve land management practices.

In recent years, the program has operated with limited funding, reducing its capacity. As time has gone by, many of our volunteers have retired from their days by the creek and next generation landholders have moved in.



Revitalising the network aims to re-engage the community, by providing updated training and equipment, strengthening data collection, and feedback to volunteers on their water quality data.

With renewed support, the program can continue to protect waterways and support sustainable land use for future generations.

Landholders across the Munna Creek sub-catchment—including Woolooga, Glen Echo, Calgoa, Teebar and Boompa are encouraged to get involved. Sampling requires approximately one hour a month with all training and equipment provided. If you would like to become a Waterwatcher and sample waterways in and around the Mary River Catchment, please contact [admin@mrccc.org.au](mailto:admin@mrccc.org.au) or call 07 5482 4766.

*Image: Waterwatch volunteers Sue and Ken Pyke own a 250acre property with 1km of Munna Creek frontage of which they are extremely proud. A registered Land for Wildlife property, the Pykes are very keen to protect and conserve wildlife habitat on their land and in Munna Creek.*

*Image inset: The critically endangered White-throated snapping turtle found in the Munna Creek catchment area.*

ARTICLE BY Shona Sengstock, Waterwatch Coordinator



# Fragile Waters

## Land clearing, urban spread and the shrinking world of the platypus.

Most people know Neil Andison as the Platypus Whisperer since these shy and enigmatic creatures have such a tendency to appear when he's around, so much so that his business offers guided tours.

His self-described epiphany moment was in 2012, when he first saw a platypus, in Obi Obi creek in Maleny of course, and he hasn't stopped advocating and sharing his love for the animal since.

When asked what the single biggest threat to the platypus is, Neil states it is undeniably the ongoing use of opera traps in Queensland.

For over a decade he has raised concerns about the impact of yabby traps on bycatch species such as platypus, turtles, water dragons, native rats and even birds.

It is these impacts that have caused opera house traps to be banned or restricted in every Australian state and territory, including Western Australia and the Northern Territory, where there are no platypus. So what's going on, or more to the point, not going on in Queensland?

The Queensland Environment Minister Andrew Powell, says he has discussed the issue with the state's minister for primary industries, Tony Perrett. The Queensland government consultation report in March produced by the Freshwater Working Group, identified that:

- 65% were in favour of a ban on opera house traps
- 35% support an immediate ban
- 30% favour a phase-out, with a ban taking effect from mid-2025.

And here we are in June, 2026.

Mr Perrett's office says once a review is complete, there will be further consultation between ministers and stakeholders.

Neil has not been made aware of any new timeline for discussions and in his words, "no-one wants to take responsibility and do the right thing. What's the point of doing a survey if you're not going to action it?"

Interestingly, or maybe more disturbingly, the platypus' Conservation status is listed as Special Least Concern in Queensland (Nature Conservation (Wildlife) Regulation 2006).

And yet is listed as Endangered in South Australia or Vulnerable in Victoria and was nominated as a Threatened species (nationally).

Where does this leave an animal so central to our national identity; an animal that's numbers are in decline, and yet is not adequately protected.

## Record a platypus sighting near you with Platypus Watch

In Queensland, platypus habitat has shrunk by 27% over 30 years, and their numbers are declining.

Wildlife Queensland's PlatypusWatch is a community-based program that raises awareness of platypus conservation and gathers population data from Queensland waterways so researchers can identify where actions are needed — now and in the future — to protect this very special monotreme.

### Factors that influence platypus decline:

**Land clearing:** Removing native vegetation along freshwater waterways compromises bank stability, causing erosion and sedimentation. Platypuses need high, stable banks to build burrows for nesting sites.

**Water use (irrigation, dams, weirs):** Disconnected or dried-up river systems force platypuses to travel over land to find another water source in which to feed, mate and shelter. This puts them at risk of entanglement, predation and displacement.

**Water pollution:** Pollution decreases the number of aquatic insect larvae, which are sensitive to changes in water parameters and are the platypus's main food source, forcing platypuses to seek food elsewhere.

**Predation:** Unrestrained pets and wild dogs can attack platypuses or destroy their burrows if they are allowed to roam riverbanks and creeks.

**Litter entanglement:** Abandoned fishing line and circular litter — such as hairbands, rubber bands and soft plastics — can ensnare platypuses and result in death. Always snip circular rubbish before disposing of it thoughtfully.

**Drowning in enclosed (opera house) yabby traps:** Platypuses need to surface to breathe air. Traps that enable entry but block any exit drown platypuses and other aquatic mammals such as rakali.

*Image supplied by Neil Andison.*

# Sediments of Success

## Inside the Mary River Integrated Project

Nestled in the southernmost reaches of the Great Barrier Reef catchment, a quiet revolution is taking place along the banks of the Mary River. Through the multifaceted Mary River Integrated Project (MRIP), a diverse coalition is proving that healthy farming and a thriving reef aren't just compatible, they are inseparable.

The Mary River is more than just a waterway; it's a vital artery feeding into the Great Barrier Reef and a lifeline for threatened species. Funded by the Queensland Government's Office of the Great Barrier Reef and World Heritage and delivered by the Mary River Catchment Coordinating Committee (MRCCC), MRIP is a masterclass in collaboration. From Traditional Owners and researchers to dairy farmers and foresters, the community is uniting to tackle sediment and nutrient runoff at the source.

The Pilot Water Quality Best Management Practice Dairy Farmer network has, to date, engaged ten dairy farms in various capacities including measuring nutrient movement through dairy landscapes with structured water quality monitoring. Communicating these findings throughout dairy networks assists in best practice management planning, and ensures that while the dairy cows thrive, the river stays clean.

In the upper reaches of the catchment, the Jinibara People Aboriginal Corporation is leading the way, integrating cultural knowledge with modern science, launching monthly water quality monitoring. Now operational across six key sites on Jinibara Country, this partnership ensures that ecological monitoring is grounded in tens of thousands of years of connection to the land.

It's often the things we don't notice, like a dusty forest track or a muddy farm lane that tends to go unnoticed. But unsealed roads are a considerable source of fine sediment contributing to the degradation of water quality in the Great Sandy Strait and the southern Great Barrier Reef

In December 2025, the project hit a milestone with the implementation of a water-sensitive road designs in partnership with HQ Plantations and the Australian National University. In Autumn 2026, the team is trialling "rubber flap" water diverters on dairy laneways, a simple yet ingenious way to keep fine sediment and nutrients on the farm and out of the water.

Arguably the most visual success of the project is the Mary Valley Riparian Zone Management Program. The numbers speak for themselves: 26,000 native seedlings planted, 24km of streambank and 60 hectares of vital riparian habitat under management.

By engaging landholders across 25 properties, MRIP is creating a corridor that stabilises streambanks, filters nutrients and provides a sanctuary for native wildlife including the Mary's world renown threatened aquatic species.



Great things come in small packages, and the Small Areas Grazing Landholder Program is no exception. Through workshops and one-on-one extension support, smaller grazing operations are gaining the tools they need to improve groundcover and pasture health, while also improving downstream water quality. By focusing on better quality pasture, improving the resilience of groundcover, better fencing and smarter stock water infrastructure, these landholders are proving that every hectare counts when grounded in practical advice on best management practices, to improve the reef's water quality.

This isn't just about water quality; it's about community resilience. When we support our landholders, we support the Reef.

The success of MRIP rests on its considerable network of partners, which includes Seqwater, Noosa, Gympie and Barung Landcare, the Australian National University, TropWATER (James Cook University), HQ Plantations, the Jinibara People Aboriginal Corporation, the Department of Primary Industry and most importantly, the landholders who are open and receptive to implementing actions that are setting a new standard for how we protect our catchment.

The Mary River Integrated Project delivered by the MRCCC is part of the Reef Place-Based Integrated Projects initiative funded through the Queensland Government's Queensland Reef Water Quality Program

*Image: Peter Hairsine discussing unsealed roads with MRIP stakeholders, May 2026*

**ARTICLE BY Tom Brook, MRIP Program Manager**

# Healing a River



## Gympie's Mary River on the Road to Recovery.

The urban reach of the Mary River at Gympie is entering a new chapter—one defined not by extraction, but by restoration. After more than a century shaped by gold mining and quarrying, this once heavily impacted waterway is now the focus of a coordinated effort to bring life back to its banks, its waters, and the species that depend on it.

**At the heart of this transformation is the Integrated Catchment Management Gympie Urban River Project, funded through the Australian Government's Natural Heritage Trust under the Urban Rivers and Catchments Program.**

The initiative targets a stretch of river between Six Mile Rest area and Widgee Crossing, including the lower reaches of Six Mile Creek and Deep Creek—areas historically vulnerable to erosion and ecological decline.

The goals are ambitious but clear: stabilise riverbanks, improve water quality, and restore habitat for some of Australia's most unique and threatened aquatic species. Among them are the ancient Australian lungfish, the endangered Mary River cod, the rare Mary River turtle, and the iconic platypus. Each depends on clean water, stable banks, and healthy vegetation—conditions that have been under pressure for decades.

One of the most visible restoration efforts is underway at “The Sands,” a critical nesting site for the Mary River turtle. Here, rehabilitation work is focused on protecting and stabilising the riverbank to ensure successful nesting seasons into the future. Nearby, at Widgee Crossing, efforts extend to weed control and the restoration of a historically significant roost for the grey-headed flying fox, further highlighting the project's broad ecological scope.

Collaboration is central to the project's success. The Mary River Catchment Coordinating Committee (MRCCC) is working closely with Gympie Regional Council, Gympie District Landcare, and the Kabi Kabi People's Aboriginal Corporation. Together, they are building on years of local knowledge and past rehabilitation work across key sites such as the Victoria Bridge Conservation Area and the designated fossicking area.



On the ground, the changes are already tangible. Strategic weed removal and revegetation have begun to stabilise vulnerable banks, reducing erosion and limiting the amount of sediment entering the river system. This has far-reaching implications—not only for the health of the Mary River itself but also for the downstream ecosystems that rely on it, including the globally significant Great Barrier Reef.

Encouragingly, flooding in February, 2026 has served as an early test of the project's resilience. Most revegetated areas held firm, with plantings surviving and even helping to trap sediment during high flows. It's a promising sign that the restoration methods are working with, rather than against, the natural dynamics of the river.

The legacy of historic gold fossicking, particularly around the Victoria Bridge Conservation Area, has left sections of Lower Deep Creek vulnerable to erosion. Addressing these impacts is part of the broader mission—to not only repair the past but to future-proof the river against ongoing environmental pressures.

The recovery of the Mary River through Gympie is not an overnight transformation. It is a gradual, carefully managed process that depends on sustained effort, community involvement, and respect for the river's natural rhythms. But as vegetation takes hold, banks stabilise, and wildlife returns, the signs of renewal are becoming impossible to ignore.

In a region once defined by what was taken from the river, Gympie is now helping to define what can be given back.

This project is funded by the Australian Government's Natural Heritage Trust under the Urban Rivers and Catchments Program, with the support of the Mary River Catchment Coordination Association.

**ARTICLE BY Kath Bennett, Urban Rivers Project**

# Upper Mary Rivercare



**From the headwaters above Conondale, to River Heads near Hervey Bay, the Mary River stretches 310 km from south to north and is the main artery in a catchment covering 9,595 square kilometres.**

Home to a number of critically endangered and iconic species like the Australian lungfish, Mary River turtle and Mary River cod, this diverse river system also supports a growing human population. The catchment supplies drinking water to urban and rural towns for communities in the catchment and the Sunshine Coast.

Enter Seqwater, whose task it is to supply clean, safe drinking water to south-east Queensland customers. Together with MRCCC, and other organisations focussed on protecting and improving our catchment, Seqwater supports the restoration and protection of catchment water quality by working with landholders through its source protection programs. Not only does this take pressure off infrastructure that cleans water for distribution, it preserves and creates habitat for the huge number of species that rely on the river and her tributaries. A win-win if you like.

The Rivercare program is a network of catchment coordinating groups working in partnership with Seqwater to deliver support to landholders in south-east Queensland catchments. Our shared goal is to improve waterway health and reduce harmful sediment, nutrient and pathogen and runoff from reaching the water supplies – “source protection”.

In the Mary River catchment, our program is called Upper Mary Rivercare and is developed in close collaboration with landholders to deliver programs and dairy farm projects that are tailored to participants.

Last year Upper Mary Rivercare landholders implemented 19 projects; nine dairy project were engaged; 6163 m of riparian fencing was installed; over 485 hectares of riparian area was managed for weeds; 29, 320 tubestock were planted; 15,500 cat's claw and Madiera vine weed biocontrol agents (bugs) were released; 52 participants were registered in the program; seven multi-year property plans were developed with landholders; and 14 extension events (workshops, field days, pasture walks, etc.) were held.

The Upper Mary Rivercare program has grown.



*Active landholders Lesley and Chris Raley.*

Building on extensive works delivered over previous years, in 2025/26, the MRCCC will deliver around \$3 million worth of water quality improvement projects in Seqwater target reaches of the Mary River catchment, incorporating approximately \$1 million worth of Seqwater investment, and around \$2 million worth of co-contributions and in-kind from landholders and other financial contributors, including local councils and state and federal governments.

Future extension events, including vine weed, grazing and forage budgeting, cool burning and fire risk management, dairy workshops, and others are planned.



We continue to welcome new participants into the program, support our current eligible landholders to achieve their land stewardship goals, and work towards continuous improvement of water quality and habitat in the catchment.

*Image: Alana presents at a field day.*

**ARTICLE BY Alana Ebert, Catchment Officer and Kym Burnell-Jones, Project Support, Upper Mary Rivercare**



# Turtles and Toads

## **The first Mary River turtle nest for the season was laid on the riverbank upstream of Tiaro on 19 October, 2025.**

It is a time of year that Tiaro Landcare turtle team look forward to with anticipation. Turtle nesting is unpredictable at least from the perspective of us humans and so many early mornings are spent surveying likely nesting sites in search of freshly laid nests. It is important to protect nests before the chief predators such as the European red fox and monitor lizards trying to find them.

### **In total, 64 Mary River turtle nests were protected over 14 different nesting sites.**

It is highly likely that all these clutches of eggs would have been predated if it weren't for the efforts of the turtle team.

Some clutches that were at risk of being drowned by floodwaters were relocated into a secure, purpose designed enclosure set high on a nesting site. Trail cameras recorded presence of any wildlife in the vicinity of the enclosure. These photos recorded cane toads congregating outside the enclosure.

The Mary River turtle conservation program has been operational for almost 25 years and throughout that time cane toads have not been considered a predator of turtle hatchlings, however, photographic results now suggest otherwise. The next challenge is to confirm if cane toads are a threat and to what extent.

It is estimated that the Mary River turtle may live to over 80 years in the wild. As this season has shown us, to recover the population will take many, many years of learning, adjusting management techniques, and commitment.

**ARTICLE BY Marilyn Connell, Project Leader, Tiaro Landcare**

*Image: Juvenile Mary River turtle prior to release.*



## **Cast for a Cause**

The inaugural Mary River Fishing competition was held on May 17 at Petrie Park, Tiaro raising funds for the critically endangered Mary River turtle.

There were 45 registrations with adults, teens and juniors all vying for over \$2000 in prizes and lucky draws. Prizes were given in each age range for most Tilapia, longest and heaviest Tilapia, longest and heaviest Fork-tail catfish and most Sooty and Barred grunter. There were not the number of tilapia caught that was anticipated but a lot of grunter and catfish were caught.

Deb Seal and Charlie Ladd managed the sign up, and teaching anglers about safety for catch and releasing native species, with Pete Chambers and Charlie on the critical weigh in. The critically endangered White-throated snapping turtle (pictured) is also native to the Mary River system and is known to be present in the Tiaro reach of the river.

It was a great day out with a big thank you to the sponsors - Wide Bay Seedlings, Freshwater Fish Stocking Association Qld, Ozfish, Fraser Coast Council, Tiaro Landcare, Tiaro Lions Club, B&H Rural, and Tiaro Meats and Bacon.

Keep an eye out for next year's competition!

# Find a Frog



## turns 10!

### How does it happen?

It is fair to say that this citizen science program works, and that it is now well embedded in our community, and beyond. It seems that Find a Frog in February comes easily into interactions with others due to its longevity and expansive media coverage each year, but importantly it's also via people's participation and the conversations they have.

Here's a quick summary of the data collected over ten years:

- **Nearly 30,000 Frog Records**
- **40 Species recorded out of 45 in the area**
- **Records of 7 Threatened Species**

### And how are our frogs doing?

We have yet to scrutinise the 2026 data however, indications after 2025 are that most frogs appear to be faring well enough. Monitoring of sites is vital in order to be really certain of this conclusion so we strongly encourage people to survey their favourite location each year.

What is just as important as the data collected is the community involvement in the program and the linkages that we make with the people of our catchment and neighbouring areas. So far there have been more than 2,500 people contributing, some multiple times. It's the enthusiasm, stories people tell and the photos that encourages us to keep at it.

**ARTICLE BY Eva Ford, Threatened Species Project Officer**

Last year two staff were fortunate to present at the Australian Citizen Science Conference in Melbourne. As we both run citizen science programs (FFF and WaterWatch) it was a perfect opportunity to join forces and find out what our volunteers and participants had to say about future directions with a short survey. What came out strongly was how important it is to get our kids involved and educated. Also important is the use of technology and to provide feedback quickly; now that's a challenge! Many said to keep doing what we are doing and that helps to give us the confidence to maintain momentum for another decade to come.

This year's FFF event saw a record number of schools seeking a FFF class talk and/or to set up their own frog monitoring site to survey each year. It's a joy being out at night with a class of head-lamped young people to join the thrill of frog 'hide and seek'! We surely will be looking to spend more time with schools next year as education is the key to understanding and caring, and monitoring is the key to increasing our understanding so we can act.

Expansion of the program is also becoming a realistic option with interest coming in from Magnetic Island in the tropical north. A world that runs FFF across Queensland would be a delight and would achieve so much for our frogs near and far! 'Frog on' to 2027 <https://mrccc.org.au/frog-in-february/>

*Images: An excellent night for Giant Barred frogs at Maleny State School with a pair of blokes squabbling!*

*Noosa District High students getting ready for a FFF survey.*

*Tree snake eating tadpole. Image supplied: L Scott*





# The Spiny Cray

**When I was a teenager (not so long ago), I was stumbling through the upland rainforest streams of the Conondale Range looking for threatened frogs.**

Walking barefoot through cold, clear water, imagine my surprise when one of the large rocks on the stream bottom transformed in front of me, mutating into a positively enormous crayfish with sharp spines and jagged claws as fat as my fingers! Surprise quickly turned to insatiable curiosity, and after taking some photos I continued down the creek with the soundtrack of rare frogs and owls; I found another three giants that night. Thus began a journey of obsession which has taken me to some of the most remote mountaintops of eastern Australia, and to MRCCC!

Spiny Crayfish (genus *Euastacus*) are a large group of freshwater crayfish specialised to cool, fast flowing streams. Between 2 and 5 million years ago, elevated global temperatures forced their broadly distributed ancestor up into isolated mountains where the climate remained cool. These isolated populations eventually became species of their own through deep time, and today we see over 60 species of spiny crayfish, many occurring on just one mountain!

In the Mary River catchment, we have two species: A dwarf “Maleny” spiny crayfish (*E. urospinus*) and a giant “Conondale” spiny crayfish (*E. hystricosus*).

Despite the confusing common names, both species occur across the Conondale and Blackall Range, including Bellthorpe which joins them. Despite sharing a genus, these crayfish are markedly different in their life history, and the two may rarely encounter each other in the wild despite living almost on top of each other, literally!

The Maleny spiny crayfish is an industrious burrower; they live semi-terrestrially, with multi-chambered burrows extending down to the water table in rainforest gullies, often well away from surface water but always in association with creeks. They do this to avoid contact with the large predators that inhabit the stream itself, including massive eels and their much larger relative! Communities of these small crayfish can number in the hundreds in the right conditions.

The Conondale Spiny Crayfish has a different story. Slow-growing and long-lived, these crays must survive the in-stream conditions, sheltering under rocks and logs until they are big enough to stand up to the large predators that they share their environment with. If they can do that, they grow to be the largest freshwater invertebrate in Queensland and an apex predator within their stream, eating tadpoles, fish and carrion. At this huge size – over 40cm long and weighing up to 1.5 kg, even the enormous eels that patrol the deep pools dare not trouble the crays!

Unfortunately, both species are under threat from habitat clearing/degradation, invasive species and in the case of our local giant, poaching.

Extensive historic clearing on the Blackall and Bellthorpe sections of the Spiny Cray’s range has greatly reduced their habitable range today. Feral pigs destroy vast areas of rainforest streams and remain a particularly difficult pest to effectively control.

Poaching for eating and the aquaculture trade land heavy blows on the slow-growing Conondale Crayfish. There is hope though, with many remaining populations being largely protected in national park, and others being positively responsive to bush regeneration efforts. With education and conservation, our local mountain endemics will continue to roam the rainforests for years to come.

**ARTICLE BY Ollie Scully, Project Officer**



# Introduction to cool burning

## Fire risk management for landholders workshop

The cool burn gods must have been shining down on us in May. On an almost perfect late autumn day, the first fine day after a week of rain, an amazing collective of landholders, dedicated agency members, experienced practitioners, and Traditional Owners delivered a first for MRCCC – a workshop about fire. This special, landholder-requested event was co-designed with landholders, key stakeholders, community leaders and Traditional Owners, and culminated in a practical cool burn demonstration at the end of the day.

Gathering at the spectacular Marrapatta Memorial Outdoor Education Centre outside of Imbil, around 45 people participated in an open forum discussing fire risk management and cool burning as a tool for land stewardship within the Mary Valley.

Starting at midday with lunch and introductions, discussion kicked off by inviting input from landholders, current and retired Rural Fire officers – some of whom are also local landholders, and experienced Traditional Owners who practice cool burning and are keen to use their knowledge and share it with others.

After a break for afternoon tea and a bit of networking amongst the participants, Michael Turner (TO in charge of the fire management program at Marrapatta) and the Kabi Kabi Rangers led the group down to participate in a practical demonstration of a cool burn, showing everyone how gentle, effective and non-threatening the process can be. Many responded with feedback indicating a boost in confidence and willingness to engage cool burns as appropriate on their own properties.

Feedback was excellent.

Workshops like this one lead to better coordination of cool burning practice and education between agencies across the region, and build skills and confidence within our landholder community to add to their land stewardship toolbox.

If you are interested in engaging cool burn practitioners on your property, contact Michael Turner (Caring for Country) at [iilm.healcountry@gmail.com](mailto:iilm.healcountry@gmail.com), or Kabi Kabi Rangers at [admin@kkpac.org.au](mailto:admin@kkpac.org.au).

To register your interest in future MRCCC workshops, email [kym.burnell-jones@mrccc.org.au](mailto:kym.burnell-jones@mrccc.org.au)

*Images: Michael and Kabi Kabi Rangers keep an eye on the fire; MRCCC Chair Ian Mackay opens the forum with Kabi Kabi Rangers.*

**ARTICLE BY Kym Burnell-Jones, Project Support, Upper Mary Rivercare**



# Smarter Fertilisers, Healthier Waterways

## MRCCC partners with Qld DPI on an exciting new project.

The Mary River Catchment Coordinating Committee (MRCCC) is teaming up with Queensland's Department of Primary Industries (DPI) on an important project exploring how enhanced efficiency fertilisers (EEFs) can boost productivity on farms while reducing impacts on our waterways and the Great Barrier Reef.

This work forms part of the Mary River Integrated Project, delivered under the \$5.5 million Reef Place Based Integrated Projects initiative, funded through the Queensland Government's Queensland Reef Water Quality Program. The trial also has funding support from Seqwater's source protection program.

DPI run plot trials will test how these fertilisers behave under controlled conditions. The results will help build a clearer picture of how EEFs could benefit the Mary River catchment—particularly for dairy farmers and intensive grazing enterprises, which rely heavily on nitrogen to grow high quality feed.

MRCCC will share findings with local landholders and help the community understand what the results might mean for our region.

### Why Nitrogen Efficiency Matters

Dairy and intensive grazing systems rely heavily on nitrogen to grow high quality feed but traditional urea fertiliser can lose a significant portion of its nitrogen to the air or through leaching. This means farmers may not get the full value of what they apply, and some of that lost nitrogen can end up in local waterways.

The More Profit from Nitrogen (MPfN) Report 2019 highlighted that improving nitrogen use efficiency is one of the biggest opportunities for boosting productivity in pasture based systems. It also found that EEFs like Emtec Urea – a nitrification inhibitor can help reduce nitrogen losses, especially in subtropical regions like the Mary River Catchment.

### What the DPI Trials Are Looking At

The DPI plot trials will combine DMPP (3,4 dimethylpyrazole-phosphate) - a nitrification inhibitor - with standard urea to see how it performs in terms of nitrogen retention, plant uptake and overall productivity.

DMPP slows the conversion of ammonium into nitrate, the form of nitrogen most easily washed into waterways. By keeping nitrogen in the soil longer, DMPP can help:

- Improve nitrogen uptake
- Reduce losses during heavy rain
- Support more consistent pasture growth

Importantly, DMPP has been found to significantly reduce nitrogen losses in high rainfall and irrigated systems, conditions familiar to many Mary River producers.

### Reusing on farm manure combined with DMPP

Another innovative treatment being tested is the use of manure produced on farm, paired with DMPP to improve its nutrient value. This approach has the potential to:

- Make better use of nutrients already available on the farm
- Reduce the need for purchased fertiliser
- Improve nitrogen retention in manure based applications
- Recycle farm waste in a productive, environmentally friendly way

For dairy and grazing enterprises that generate significant manure, this could offer a practical and cost saving alternative to relying solely on synthetic fertilisers.

### MRCCC's Role

- Share DPI trial results with dairy farmers, graziers and the wider community
- Help explain how the findings may apply to local soils, rainfall patterns and pasture systems
- Provide updates through newsletters, field days and community events

By helping connect scientific trials with real world farming, MRCCC is supporting both productive agriculture and a healthy catchment.

### Benefits for the Mary River and the Great Barrier Reef

When nitrogen washes off farms, it eventually reaches the ocean as dissolved inorganic nitrogen (DIN). High DIN levels can fuel algal blooms and crown of thorns starfish outbreaks, both of which threaten the health of the Great Barrier Reef.

By improving nitrogen efficiency on farms, EEFs have the potential to:

- Reduce nutrient runoff
- Improve water quality in the Mary River
- Contribute to better outcomes for the Reef

This project highlights the potential for farm productivity gains to align directly with positive environmental outcomes.

### A Positive Step for Farms and the Environment

Enhanced efficiency fertilisers like DMPP—and innovative approaches such as pairing DMPP with on farm manure—offer promising opportunities to improve nitrogen efficiency, reduce losses and support healthier waterways. As the DPI's trials progress, MRCCC looks forward to sharing what the results mean for our region and how they might help both our farming community and the Mary River thrive.

ARTICLE BY Alana Ebert, Catchment Officer, Upper Mary Rivercare

# Historic 250th General Meeting

## In the world of grassroots environmental groups, longevity and consistent collaboration are rare achievements.

Yet, the MRCCC has quietly proven that dedicated community partnership can stand the test of time.

The committee recently celebrated a momentous milestone: its 250th General Meeting.

For over three decades, this group has served as the operational backbone for one of Queensland's most ecologically diverse and economically vital waterways. Since the first general meeting in November 1993, the MRCCC has brought an incredibly diverse array of people to the table—from primary producers and conservationists to multi-level government officials—all focused on a singular goal: keeping the Mary River catchment healthy, productive and sustainable.

The Mary River catchment is vast, spanning nearly 10,000 square kilometres from the pristine headwaters in Maleny all the way down to River Heads opposite K'gari (Fraser Island). Managing it requires balancing the needs of over 200,000 residents, thriving agricultural industries, and a host of vulnerable, unique wildlife like the Mary River cod and the Mary River turtle.

The MRCCC's non-regulatory, cooperative approach has been its secret weapon. Instead of enforcing rigid rules, the committee brings together delegates from over 25 to 30 distinct industry, community, and government sectors, including:

- Local landholders, grazing enterprises and dairy farmers
- Community Landcare and environmental focused groups
- Representatives from the Sunshine Coast, Noosa, Gympie, and Fraser Coast regional councils
- State and Federal environmental and infrastructure delegates
- Water utility partners such as Seqwater

By giving everyone a voice at these 250 meetings, the committee has successfully turned potentially conflicting interests into collaborative local projects.

What makes the 250-meeting milestone truly remarkable is the tangible action that has stemmed from those discussions. These aren't just talking shops. Since 1999, the MRCCC has facilitated the investment of over \$30 million directly into the local catchment economy.



2001 committee and staff of the MRCCC with Chairman Jim Buchanan with Qld Catchment-Landcare Award.

Those funds have translated directly into on-the-ground environmental wins, including:

**Water Quality & Great Barrier Reef Support:** Partnering with federal Reef Programs to reduce sediment run-off into the southern edge of the reef by working with primary producers.

**Sustainable Agriculture:** Providing technical advice and modest financial incentives to help farmers adopt best land management practices.

**Biodiversity Protection:** Running major Citizen Science initiatives like Find a Frog in February and tracking threatened ecological communities.

**Riparian Restoration:** Actively working with landholders to control invasive weeds, revegetate fragile riverbanks to prevent severe erosion, manage stock access to waterways and install off stream watering points.

Reflecting on the milestone, the sheer endurance of the committee highlights the community's deep-rooted connection to the river. To sit down 250 times over 30-plus years requires immense passion, patience, and a shared belief that a healthy river system underpins a healthy local economy.

As the MRCCC moves past this milestone, the challenges ahead—ranging from managing climate variability to navigating major regional infrastructure shifts—will undoubtedly require the same steady, collaborative spirit that filled the room back in November 1993. If the MRCCC's track record is any indication, the Mary River is in safe hands for many more meetings to come.



## The Honey Locust

*Gleditsia triacanthos* is a large, rapidly growing tree. In the past it has been deliberately promoted and planted in Australia as a fodder tree and garden ornamental.

Recent plants found near Kenilworth Bluff by the Sunshine Coast council has caused alarm as this invasive species is a high-risk weed for our region.

### Why it's a problem:

- extremely fast-growing and invasive

- forms dense thorny thickets that can injure people and livestock
- seeds spread easily via animals and through waterways.

### What to look for:

- bright green, fern-like leaves
- long seed pods
- dense spines/thorns on branches or trunk
- often grows in clusters.

### If you spot it:

Please report immediately to Sunshine Coast council to prevent further spread and to protect our landscapes and biodiversity.



# Spring in the Mary



## A Celebration of Biodiversity

The 'Spring in the Mary' competition is more than just a contest; it is a documentation of the health and spirit of the river system. The images submitted highlight the rich diversity of the catchment, featuring iconic threatened species, agricultural life, and the stunning waterways that connect the community.

From the rugged upper reaches to the serene estuaries, local photographers, junior and adult, capture the essence of the season. Entries range from macro shots of native insects and vibrant wildflowers to sweeping landscapes and candid portraits of life in the Mary River catchment.

Spring in the Mary photo competition opens Sunday September 27, 2026 with great prizes to be won as part of Mary River Month celebrations.

*Images: Milky Way through a spring storm, Overall HC, Nicole Gordon*

*Tawny Frogmouth\_Junior winner, Reef Van*

*Python- sssssspring Wildlife winner, Michelle Honey*

# Dates with Mary 2026

Coming events in the catchment. Brought to you by the MRCCC.



July  
Saturday 11  
9am to 4pm

## Mary River Festival



- Bring a 500 ml sample of your bore, creek or dam water in a clean jar for a free water test at the MRCCC display.
- Join in the Bug Club activity with the MRCCC team
- Take an ecological creek walk to learn about native flora/fauna
- Check out the cod hollow created for the endangered Mary River cod!
- Speakers tent presentations

### Speakers Tent

- 9.30am** Borumba Pumped Hydro update  
– Steve Burgess, MRCCC
- 10.30am** Electric Vehicles  
– Murray Keys, Gympie Sustainability Alliance
- 11.30am** Save Sunrise Glossies  
– Spencer Hitchen
- 12.30pm** The Platypus Whisperer  
– Neil Andison
- 1.30pm** Koala Action Gympie Region  
– Michelle Daly
- 2.30pm** Grow your Own  
– Mary Valley Country Harvest Co-op

August  
Saturday 1  
9am

## Tiaro Field Day Recreation Grounds Tiaro

Grow your knowledge of good farming practices, connect with agricultural businesses and services and your local community.

<https://tiarofieldday.com.au>

August 1 to  
October 31

## CLOSED SEASON FOR FISHING

Upstream of the junction of Six Mile and the Mary River to protect the endangered Mary River cod during its breeding season

August  
Tuesday 4  
8.45am -12.30pm

## MRCCC General Meeting

Guest speaker Phil Moran - how to identify aquatic weeds between native species. Phil travelled Australia training people in aquatic weed ID for the National Aquatic Weeds Group for many years.

### Bookings essential

**RSVP** to 07 5482 4766  
includes light morning tea and lunch

August  
15 to 23

## National Science Week

In person and online events, virtual tours, DIY Science and more, **all across Australia!**

<https://www.scienceweek.net.au/>  
for more information and to find events

September  
Tuesday 7

## National Threatened Species Day

**Commemorating the death in captivity of the last Tasmanian tiger.** An opportunity to reflect on the threatened species of the Mary.

September  
Sunday 27th

## World Rivers Day and the start of Mary River Month

**Celebrate everything Mary** with a range of activities in the catchment including Water Quality Catchment Crawl, MRCCC AGM on Oct 27 and the **Spring in the Mary photo competition.** Check the website or FaceBook page for updates.

October  
Wednesday 7 to  
Thursday 8

## Water Quality Catchment Crawl

Let us know if you're interested in helping to create a snapshot of water quality in the Mary River and to experience the whole catchment from the headwaters to the sea.

The MRCCC acknowledges First Nations people of the Mary River catchment: the Jinibara people from the headwaters in the Conondale and Blackall Ranges, the Kabi Kabi or Gubbi Gubbi people from the lands where the river begins its more sinuous, serpentine course to the sea, the Wakka Wakka people in the very northwest of the catchment and the Badtjala or Butchulla people in the tidal reaches, Great Sandy Strait and on K'gari.

We acknowledge the traditional names of this river that we've known so recently as the Mary; Numabulla, Moonaboola, Moocooboola, Moorooocoola.

The MRCCC's efforts "healing the country", (this catchment), have spanned over a quarter of a century. We are humbled by our First Nations peoples' long connection and custodianship and look forward to working together into the future.

<https://mrccc.org.au>

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