



The **CODLine**

***Incorporating NEWS of the
Mary River Catchment Coordinating Committee***

Thirty years of revegetation ...

Victor and Helga Hill
Landholders,
Black Mountain Range

We are very fortunate to have about two km of Happy Jack Creek running through our Ridgewood property. When we came here in 1970 there were few trees, and the creek was lined with stunted weeping lillypilly (*Waterhousea*), cut back by the severe frosts that we had in those days.

Now the creek is in total shade from the thick stands of native trees that have grown up over the past 30+ years. The leaf litter has provided habitat for the rare and endangered giant barred frog that is being monitored by Eva Ford of MRCCC.

Under the guidance of Joel Bolzenius from Noosa & District Landcare, the Green Corps have done a marvelous job on some cat's claw creeper that was threatening an area of the creek. They cut and swabbed, marked small native trees and shrubs with an orange tape, then sprayed every bit of cat's claw on the ground. We are hoping that those hard working young people will return soon to see the results of their efforts and perhaps further grants will enable them to continue their work on our property.

We now have four plantations of native species on the farm, each of about 2000 trees. The trees for the first block of cabinet timber were provided by Noosa Landcare in 1997. We planted a further two blocks (one of cabinet timber and the other Eucalypts) from seeds gathered locally or obtained from the Beerwah Forestry nursery. Just before Christmas



Revegetation linking upland and lowland regional ecosystems on Victor and Helga Hill's property.
[Photo courtesy of Noosa Landcare Group]

2005 Joel and the crew from Noosa Landcare planted the latest block that will join up the wildlife corridor from Happy Jack Creek over the hill to Ironstone Creek and to the timbered ridge that runs from Black Mountain almost to the Mary River.

Funding for the fencing of the new block was provided by Noosa Landcare through the Black Mountain Range Catchments Project. This project also provided funding for a stone crossing across the creek which will mean the cattle can access water without causing damage to the creek banks. This has enabled us to

fence off other areas along the creek to stop erosion.

The irony of the whole scheme is that while we, with Noosa Landcare's and the Green Corps' help, are busy protecting and enhancing the biodiversity of this lovely area, the State Government is planning to destroy it with an ill-conceived dam which they propose to build at Traveston Crossing.

The latest policy of dam builders is to remove all vegetation in the area to be flooded in readiness for their underwater desert.

Mary Basin Water Resource Plan

- What does this mean for the River?

Summarised from an MRCCC Factsheet

A **Draft** Mary Basin Water Resource Plan (WRP) was released for public comment in November 2005 – **before** the Traveston Dam announcement was made in April 2006.

The **Final** Mary Basin Water Resource Plan has been recently released, announcing a 'strategic reserve' (or unallocated water) of 150 000 megalitres per year to provide urban water supplies to Brisbane (**via Traveston Dam**) ...

The most significant difference between the Draft WRP and the Final WRP is the inclusion of a few words scattered throughout the document. These few words will have a profound effect on the Mary River and the Great Sandy Strait.

Where the draft WRP stated that something 'must be adhered to', the Final WRP is now considerably weakened through the constant use of 'to minimise the extent'.

This is akin to simply indicating what should happen, but 'if we can't do it, we don't have to', providing the State Government with an 'out clause' at times when the operation of the Traveston Dam means downstream environmental flows can't be met.

Within the schedules of the Mary Basin Water Resource Plan, 'nodes' along the river are described for determining the level of compliance of environmental flows. The furthest upstream monitoring node is near Gympie, approximately 40 km downstream of Traveston Dam. The other two nodes are at Tiaro and the Mary River mouth.

The Final WRP constantly uses the term 'in the simulation period'. The simulation period is approximately 110 years, reflecting the 110 years of available data (1890-1999) that has been used to analyse the characteristics of flows in the Mary River.

By analysing the historical river flows, the extent of 'change from natural' can be determined. It is then a question of how much change from natural condition can be accommodated before ecosystems cease to function properly. In particular, how much freshwater flow does the estuary need for fish spawning?

The following points show the dramatic effect the Final WRP & the Traveston Dam will have on flows in the Mary River:

Low Flows

- For up to 31% of the next 110 years (the simulation period) the legislation allows there to be less than 1 megalitre of flow at the Mary River mouth (i.e. no flow down the fishways on Mary R. & Tinana Ck).
- For up to 18% of the next 110 years (the simulation period) the legislation allows there to be less than 1 megalitre of flow at Fishermans Pocket (Gympie). Currently the driest month of the year (October) has on average 171 megalitres per day flow at Fishermans Pocket.
- Up to 30 times during the next 110 years the legislation now allows 'no flow' at the Mary River mouth for 3 months, (i.e. no flow down the fishways on Mary R. & Tinana Ck).
- In the next 110 years the legislation now allows there to be three times when there is 'no flow' in the river at Fishermans Pocket (Gympie) for 6 months. There are no records of this ever happening.

Medium – High Flows

- The small freshes (floods every 2-3 years) will be cut by 58% at Fishermans Pocket, Gympie. These freshes are critical for fish spawning in the estuary and in the river. The Draft WRP stated only a cut by 32% of 2-3 yearly flows. This is dramatically different in the Final WRP.
- The numbers of the following floods will be cut by up to 31%:
 - * 1 in 5 year floods at Fishermans Pocket (Gympie)
 - * 1 in 20 year floods at Fishermans Pocket (Gympie)
 - * 1 in 20 year floods at the Mary River mouth.
- The 'Annual Proportional Flow Deviation' or the amount of flow 'alteration' from the river at Gympie has been estimated to be 2.1. A score of 0 (zero) is natural, and the highest score possible being 3.4 (severely altered). To put this into perspective, it is widely agreed that a score of 2 should be avoided, and certainly should not occur today knowing the major problems we have caused with river flow alteration in the past.

*The subordinate legislation for the Mary Basin WRP can be found at:
<http://www.legislation.qld.gov.au/LEGISLTN/SLS/2006/06SL192.pdf>*

MRCCC on the MOVE



The Mary Catchment Resource and Information Centre is relocating to 37 Nash St, Gympie (Old TAFE building, cnr Nash & Monkland Sts).

This is most likely a temporary move, as MRCCC are looking for long-term premises in Gympie to share with a number of community organisations.

All other contact details remain the same.

Contact the MRCCC and project officers on 5482 4766 or mrccc@qldwide.net.au

Riverbank restoration work – Experience and threats to success after 14 years

Glenda Pickersgill
Landholder, Kandanga

Here are a few tips and benefits from my 14 years of experience fencing my stock off river banks and watching the vegetation along the banks regenerate naturally, with a little help.

Firstly the fencing bit

Fencing often involves fencing off the top bank and working with your neighbour to stop their stock coming across the stream from the bottom. You also need to provide **alternative access** to water for your stock, by setting up a number of troughs.

We found **electric fencing** is more economical and easy to fix after floods than permanent barbed wire fencing. Painted wooden garden stakes often last out 10+ years, are cheap and don't short out when the insulators age, the way steel posts do. Make your own insulators from garden hose or poly pipe. Easier still if there are some remnant trees along the banks, as screwing an insulator into the trunk is by far the quickest and cheapest way to set up an electric fence. Tie wire will often do if you only have a few kilometres to fence off and energize.

Next, revegetation ...

In no major rush, we watched the **succession of vegetation** occurring on the ungrazed banks and looked for opportunities to enhance-plant only the species not naturally recolonising. Firstly, at the toe of the banks near the water's edge, bottle brushes (*Callistemon viminalis*) began to establish from seed. In a few years the she-oaks (*Casuarina cunninghamii*) further up the bank quickly began to shade out the grasses and give protection from frost, allowing other species to become established either by planting or naturally from seed brought in by birds or flying foxes, or floated down with floods.

It is a common sight to see these she-oaks and bottle brushes begin the **succession phase of recovery** in many areas throughout the catchment where stock have not been able to graze and sufficient native seed is being brought into the area



From bare eroding banks to this scene in 14 years – helping nature recover in the Mary River catchment.

by natural elements. She-oak and bottle brush seed are also very easy to collect and germinate in trays or direct sow.

To assist in getting more plant diversity and bank stability, we **planted** weeping lillypilly (*Waterhousia floribunda*) seedlings along the lower section of the bank anywhere from 3 to 8 metres from the water's edge. These are amazingly easy to dig up from sandy bars within the tributary creek systems where they germinate in mass numbers and, after a few months in a shade house, are ready to plant out. *Lomandra longifolia* (matrush), a native sedge, is another common bank stabilizer, often recovering in areas not grazed. It can also be easily germinated and grown in pots from seed or direct-seeded.

The black bean tree is another tree species that has demonstrated incredible stability on the steepest of banks along the Mary River and its tributaries. It also is simple to establish by **burying the bean seed** about 3 cm deep.

A few afternoons of wandering along the banks yields an amazing number of plants that establish under the she-oak canopy. With a tree canopy starting to emerge, the sound of birds has become more obvious, and with the birds have come a wide range of other riparian rainforest species which we are fortunate to have close by along Kandanga creek.

The birds have also brought in some **weed species**, notably Chinese elm, camphor laurel and wild tobacco bush. Over time we've found that the tobacco bush is actually beneficial, dying out over a ten year period after providing a food supply for pigeons which, in turn, bring in sandpaper fig seeds. The Chinese elm and camphor laurel serve in the first few years as bird perches and help with canopy closure, but in time these weeds will require selectively poisoning when they reach the age of seeding. Castor oil plant is another weed that is useful as a bird perch but then requires poisoning before it seeds; this weed is increasing in the catchment. Ongoing is the control of vines such as cat's claw creeper, Madeira vine, Brazilian nightshade, balloon vine, moth vine and Dutchman's pipe. This requires a control program of twice yearly wandering along the track that's been brushed along the length of the stream banks.

And the benefits....

The increase in canopy cover and leaf litter means more habitats suitable for fauna. We now commonly see a wide variety of birds (including bush turkeys), bandicoot or echidna diggings, and snakes visiting the area. In the water there

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No place like home for the Cod!

Dale Watson

Mary River Catchment
Coordinating Committee

Improving native recreational fishing habitat and raising community awareness of sustainable recreational fishing is the aim of the Mary River Catchment Coordinating Committee's Strategic Mary Catchment Recreational Fishing Habitat Improvement and Education Project. Funded by the Australian Government Department of Agriculture, Fisheries and Forestry, this project is improving fish habitat in the lower reaches of Elaman Creek, by reintroducing large woody debris (LWD) as fish habitat and sediment control structures.

Large logs are being used to create log jams at two large eroding banks on the creek. These log jams will control the erosion at these sites as well as provide in-stream aquatic habitat. Large hollow logs are also to be placed in deep shaded pools in the creek to provide habitat for breeding Mary River Cod.

Landholders at two properties have been instrumental in the success of this project. Both of the sites will also involve streambank fencing and off-stream watering. Barung Landcare is also assisting by providing the trees and labour for the essential riparian revegetation at the sites.

The project also involves a strong community and school education



Dave Garmany, landholder, at the site before the reintroduction of large woody debris.

component. Three very successful field days have been held with the Conondale State School, Widgee State School and Ananda Marga River School at Maleny. The Barambah Environmental Education Centre has helped with designing and running these field days and with links with the DPI's Recreational Fishing Program.

The field days involve educating the students on the importance of native fish in our local waters, the ecology

of our waterways, focusing on issues such as fish habitat and the importance of sustainable freshwater recreational fishing to our community.

The project has also provided funding to the Gerry Cook Fish Hatchery for raising and releasing Mary River cod fingerlings. Cod fingerlings will be released at various suitable sites along Elaman Creek.

For more information, contact Dale Watson at the MRCCC on 5482 4766 or mrccdale@qldwide.net.au

Riverbank restoration work

are plenty of lungfish, turtles, jewfish nests, platypus and even the occasional Mary River cod to be seen.

So how does this succession revegetation **handle the big floods** ... the last being in 1999? The she-oaks often get damaged the most but often recover, or a gap is created in the canopy for other riparian rainforest plants to become established. The banks are more stable thanks to the deeper rooted plants and the biodiversity and aesthetics are improving each year.

The cattle are **drinking cleaner water** from the troughs than they were from the river, and drinking more frequently. There is less risk of cattle polluting the river through urine/manure, bogging or dying in the water.

Biggest time user?

The **weeds** are, without a doubt. Particularly this year, the focus is on the Chinese elm and camphor laurel.

However another threat to our river bank restoration project and my time has dropped on us like a bomb shell!

The announcement of the proposed **Traveston Crossing Dam** has put a dark cloud over the future of a large number of restoration works in the catchment that we as landholders have devoted our time and energy to protecting.

My property is just one kilometre upstream of the proposed dam wall, and my whole property would be inundated.

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Personally, it has been a challenge to remain motivated through the past six months of uncertainty and it will only be by standing united that we can win this fight to stop the dam proposal. The river and its tributaries should be preserved for future generations in our community, not drowned in a quick, poorly planned grab for political power when there are more economically, socially and environmentally better alternatives such as harvesting and recycling water in the catchment that needs it.

More information about alternatives to building new dams can be found at the www.savethemaryriver.com website.

Fishing for the Cod's future

Lyn Klupfel
Tiaro & District Landcare

When you're a small group, you have to be innovative to get the message out.

The Tiaro Annual Fishing Competition was another wonderful day this year – although it had been very dry and the river very full of weed. People came from all around – from Brisbane to Toowoomba to Childers as well as from more local places. As usual, the children took out most of the prizes, because this is an event for families as well as other keen fisher folk. Many families come back every year.

Vince Collis from the Gerry Cook Fish Hatchery at Lake Macdonald brought 400 Mary River cod fingerlings to release into the river. This year, Vince brought them in 10 separate containers. These containers were each given to 10 fishers who regularly come to the Comp to release into the part of the river where they fish.

Well, you'd think we'd given them a pot of gold! They were so proud to be able to do their part in helping rehabilitate the river.

As this is a Catch & Release competition,

all fish that the competitors think are big enough to stand a chance for a prize are brought in to be weighed and placed into the recovery tanks before being released.

Mary River cod and lungfish, of course, must be released immediately if they are caught, because they are protected species and aren't part of the Comp. It would be great if anglers could photograph their cod when they catch them because we'd be able to see how these fish are going – with the stories anglers tell, it's good to have a photo to back them up!

Of the fish that were brought in, there were only four species this year, which is down on previous years – bass, bream, spangled perch, and catfish (but no eel-tailed catfish this year).

Duncan Limpus came for the second year to check over any turtles that were accidentally hooked. He removes the hooks safely and watches the turtles to be sure they are sufficiently recovered to be released back into the river.

David Whelan, who does a regular fishing comment spot on the local TV channel, came for the 3rd year running, with his recovery tanks and to run the Learn to Fish clinics for the kids. David's teaching

and the tanks are doing a great job at improving the survivability of the fish. The first year David came, we still had a fair few fatalities among the fish that were caught. In the second year, that number was halved. And this year, only three fish didn't make it back into the river.

The Seabird Rescue people came again to talk about their work rescuing pelicans and other sea birds mostly along the Hervey Bay foreshore, and to do some much-needed fundraising for their work.

As usual, most of the proceeds from the Fishing Comp were given to the Lake Macdonald Fish Hatchery to help them continue their excellent work raising Mary River cod fingerlings for release throughout the Mary River catchment and beyond.

So it was another great day for education and fundraising, with Tiaro Landcare taking the innovative approach.

Next year will be the 10th Fishing Competition, so it'll be time for a big celebration for the Comp as well as of the river itself.

To contact Tiaro Landcare, contact Lyn Klupfel on (07) 4129 6206 or tiarolandcare1@bigpond.com

Figuring out what to feed 'em

Vince Collis
Gerry Cook Fish Hatchery

Since our community group, the Lake Macdonald Freshwater Fishing Assn, took over running the fish hatchery at Lake Macdonald in the mid 1990s, we've changed from pond culture to rearing in troughs.

This was a major shift in the rearing of Cod because it involved growing plankton in ponds, harvesting it with air lift pumps, and straining the plankton to remove harmful life forms and get plankton small enough for the fry to eat.

We fed the fry in the troughs until they were 25-30 mm, then put them out into ponds for the final growth stage. This was where the greatest predation took place. We could lose up to fifty percent of our fry to shags and other birds in the fortnight they were in the troughs.

At this time, some of our COBs (Crafty Old Bs) and CYBs (Crafty Young Bs)

came up with the idea to rear the fry completely in troughs, thereby reducing predation. This worked well but it soon became apparent that we could not produce enough food to feed the fry, so a source of food had to be found.

We brought a trial shipment of black worms up from a trout farmer in Victoria; the fish took to these with great gusto. We still use these worms today but now they are a supplemental food; the main food is still plankton in the early stages of development. After talks with the steering committee we looked for a cheaper source of food because 21 kilo of worms a week @ \$35 a kilo runs away with the money...

So Steve Brooks of DPI Fisheries suggested frozen bloodworms as DPI had had success getting golden perch to eat these. We sourced these worms here on the coast and the fish took to them straight away. So we now feed the fry frozen worms three times a day and the

live worms last feed of an evening.

The results of this are amazing. We haven't done any formal testing, but the growth rate under this regime is much better than previously.

The fry are released at 35 mm in length. The feeling is that if they stayed longer (and grew larger) in the troughs they would lose their instinct to forage for themselves and become trained to expect food at set intervals rather than having to catch their own.

There are a lot of operations going on while all this is happening. The troughs have to be cleaned of excess food after ten to twenty minutes of feeding, which happens after each feed except for the live feed. We do water changes every two days, using dechlorinated town water.

In the meantime the broodstock still have to be cared for with feeding and pond maintenance. This tends to keep us out of mischief.

Fish kill due to chemical?

Brad Wedlock
Mary River Catchment
Coordinating Committee

In January 2006 the Mary River Catchment suffered a great loss. Four Mary River cod, along with thousands of other native fish, were found dead in a section of the Mary River downstream of Kenilworth.

So what happened?

A local landholder noticed the kill about three days later and notified the MRCCC. One of our catchment officers went with Environmental Protection Agency (EPA) staff to investigate.

The fish were too decayed for tissue samples to be taken. The water quality samples didn't show any sign of pesticides, and the nutrient levels were within guideline values.

During the following week, we deployed a 24 hour Dissolved Oxygen logger just downstream of the fish kill site for five days. This revealed extremely

low dissolved oxygen (DO) levels, compounded by extremely high water temperatures.

The fish kill site is also heavily infested with an invasive aquatic weed known as dense waterweed (*Egeria densa*). Recently spread from Obi Obi Creek to the Mary River, this highly invasive weed thrives with high nutrient levels and full sunlight (where streamside vegetation has been cleared), and has been known to cause severe oxygen depletion in streams.

Based on these results, EPA and MRCCC staff initially concluded the fish kill most likely resulted from DO depletion due to the extreme water temperatures and the outbreak of dense waterweed.

Ten days later, we deployed a 'passive sampler' downstream of the kill site for one month. Results from this testing showed the water was remarkably free of contaminants **apart from a chemical known as Chlorfenvinphos**.

Chlorfenvinphos's registration was restricted in Australia in 2000

because it is highly toxic to birds and aquatic organisms, especially fish. The warning "*DO NOT use this product in a manner which causes the product or used container to enter streams, rivers or waterways*" appears on products containing Chlorfenvinphos.

Although the passive sampler detected Chlorfenvinphos, we can't directly attribute the fish kill to this chemical without finding the chemical in fish tissue samples.

The MRCCC encourages landholders to use and dispose of all herbicides and pesticides according to the directions on the label.

The EPA encourages landholders to be aware of your general environmental duty regarding the use of chemicals, including herbicides and pesticides, in farming activities. Landholders are obliged to use and store farm chemicals in a manner that prevents their release to the surrounding environment.

Western Mary Sub-catchments Grazing Landscapes Project

Brad Wedlock
Mary River Catchment
Coordinating Committee

Jointly with the Gympie District Beef Liaison Group, MRCCC will be organising a series of field days, workshops, farm tours and property activities, focussing on the Wide Bay, Widgee and Munna Creek sub-catchments, which include the Kilkivan, Woolooga, Lower Wonga, Widgee, Brooweena and Miva districts. These three sub-catchments cover about 30% of the Mary River catchment, and have the largest concentration of commercial grazing properties in the Mary River catchment.

These activities, components of the Western Mary Sub-catchments Grazing Landscapes project, will cover a range of topics:

- identifying the key grazing land types in the three sub-catchments
- assessing the land condition (A,B,C,D)

of these key land types

- assessing the condition of riparian zones and wetlands
- monitoring the composition of native pastures using GrassCheck
- demonstrating best land management practices for sustainability and profit
- monitoring the water quality of creeks with local Waterwatch Groups.

The project team will work with local graziers to investigate ways to improve grazing land condition, sustainability and the productivity of their grazing enterprises. Improved land condition not only leads to greater pasture productivity and profits, but will also reduce sediment and nutrient losses from grazing land to the Mary River system.

Workshop options include

- Stocktake (1 day) how to balance feed supply and demand
- Property Management Planning (1 day) based on your property maps

- Grazing Land Management (4 days) includes 7 modules and field work
- Native Forest Management (1 to 4 days) includes lots of field work
- Healthy Soils/ Healthy Profits
- Weeds (terrestrial & aquatic) Management.

Additional funding may be available to assist property owners to implement their on-ground project work.

The Mary River Catchment Coordinating Committee (MRCCC) has received National Landcare Program funding for this Grazing Land Management project. The Gympie District Beef Liaison Group will be the major working partner with the MRCCC. Other project partners will include DPI&F; the Kilkivan, Woocoo and Tiaro Shire Councils; Burnett Mary Regional Group; and AgForce.

For more details, contact Brad Wedlock at the MRCCC on 5482 4766 or mrcccbrad@qldwide.net.au

The Trouble with Impoundments

Phillip Moran

Noosa & District Landcare Group

It would seem our Government believes all our water problems will be solved by building new dams to cope with increased demand for that most precious commodity, water.

Amongst the many concerns raised by the proposal to build a 'mega-dam' at Traveston Crossing, we have heard about evaporation, initial capital cost, energy demands for pumping water miles away (read: to Brisbane), relocation of the Bruce Highway (again), contamination by old dip sites, and of course, the displacement of hundreds of families.

I want to briefly touch on another little talked about consequence ... **aquatic weeds**.

There are three aquatic weeds that this dam **will** get.

Firstly, there will be *Salvinia molesta*, or **salvinia**. This plant is a free-floating aquatic fern, deliberately introduced into Australia from Brazil in 1952 as an aquarium plant. *Salvinia* reproduces solely by vegetative means ... it does not set seed in Australia. This does not hinder its astonishing rate of reproduction. At Lake Moondarra in Queensland, *salvinia* was recorded as doubling its area in just 2.7 days ... and can reach densities of 400 tonnes of fresh weight per hectare. Fortunately CSIRO staff from Brisbane had been researching a biological control agent, a small brown weevil called *Cyrtobagous salviniae*. This weevil, released in 1980, has proved to be an outstanding success in controlling *salvinia*. No bio-control is a 'silver bullet', and the weevils have to be monitored and re-released regularly to maintain control. It is most effective in the sub-tropics and less effective in cooler climates. A recent infestation of *salvinia* in the Hawkesbury River in NSW was eventually controlled ... with the injection of close to \$2 Million.

Salvinia **is** in the Mary River right now. If we build a large impoundment, we **will** get *salvinia*.

Secondly, there is *Eichhornia crassipes*, or **water hyacinth**. This little number was introduced to Australia way back in 1894 from the Amazon River because of its pretty purple/pink flowers and attractive shiny foliage. *Water hyacinth* reproduces both vegetatively and from seed. Two parent plants can produce 30 offspring in 23 days, and 1200 in 4 months. And get this: the seed remain viable for 15 years! I remember seeing *water hyacinth* completely clogging the Brisbane River in 1973. Again bio-control came to the rescue in the form of the weevil *Neochetina eichhorniae* which was released in 1975. This control measure also had remarkable success; however it's not easy to get hold of these weevils these days.

Have a look at this photo (above right), taken about a month ago **in the Mary River**. Yes, this was below the proposed dam, but if you think it won't become a feature of any future dam on the Mary, you are living in fairyland!

And lastly, my favourite, *Cabomba caroliniana* or **cabomba**. This South American bully is a newcomer. It occurs from Darwin in NT down to Lake Benella in Victoria. *Cabomba* was first noticed in Lake Macdonald in Noosa Shire in 1993. Now it covers 70% of the lake and we are removing up to 90 tonnes of *cabomba* per hectare. Mechanical removal is the only current way to combat



Water hyacinth at the Mary River Barrage, between Tiaro and Maryborough.

this weed. You could say that the only enemy of *cabomba* in Lake Macdonald is Ross Paulger, the harvester operator! This weed also occurs in Ewen Maddock Dam in Caloundra Shire. Here, under the adroit supervision of Russell Rainbird, they are using an underwater vacuum cleaner to deal with *cabomba*. This is a more selective method, and allows Russell to keep as many native aquatic plants as possible. He does not have the tonnages that we have to deal with in Noosa.

With *cabomba*, the CSIRO's Shon Schooler was hot on the trial of a biological control agent and had identified two good potential agents. I say 'was', because funding wasn't continued and the work has stopped. I am hopeful that by working through the National Aquatic Weeds Management Group we may still be able to finish this work... We have no other way of stopping this monster. This proposed new dam at Traveston is 30 kilometres from **36% of all Australia's cabomba**.

To talk water weeds, contact Phil Moran at Noosa & District Landcare on 5485 2468 or futurescentre@spiderweb.com.au

Abyss Diving tackles Cabomba.



Revisiting the Mary

Glenda Pickersgill

I had the wonderful opportunity to canoe/walk over 300 km of the streams in the Mary River catchment when I was working with Worldwide Fund for Nature part-time in 1998-2000.

I was mapping in-stream cod habitat, the condition of riparian vegetation along the banks and the presence of weeds. This included mapping any known cod holes, both past and present, with landholders. This information continues to be used to plan strategies for catchment restoration work and restocking with Mary River cod.

In spring this year, I again canoed the middle stretches of the river from Walkers Bridge at Moy Pocket to Riebles Crossing at Sexton. I was travelling with Marilyn

Connell, recording a number of possible Mary River turtle nesting sites as part of Tiaro Landcare's Turtle research project. We found a number of potential sites and gathered data about the riparian vegetation, turtles, lungfish spawning grounds, platypus, birds and weeds.

The water had good visibility to one metre most days, and we were able to see many lungfish.

On one exceptional day after a small rise in the river, we saw more than 50 mature lungfish about one metre long, in the riffles and shallow pools.

Over the past six years there has been a noticeable increase in floating weeds, as salvinia and hyacinth edge many pools. *Egeria densa* (dense water weed), an underwater aquatic weed, now dominates

native aquatic plants in shallow pools through most of the middle catchment. Cat's claw creeper, balloon vine and leuceana are spreading particularly downstream of Gympie. There were a number of dead cattle carcasses along the river's edge in a few sections, as many as one each two kilometres.

Unstable river bank areas not being grazed showed signs of recovery succession with she-oak and bottle brush, but unprotected banks continue to be dominated by shallow-rooted grasses and are clearly impacted by cattle grazing and accessing the water. Most sandbanks suitable for Mary River turtle nesting sites were also at risk from cattle trampling the sandbanks.

I rarely see other people canoeing the waters of the Mary. The peace, beauty and variety in scenery are well worth the effort to explore. See it and enjoy it before it is damned!!

Sisters of Mary

Zela Bissett

Sisters of Mary, formed in May 2006, is a group dedicated to appreciating, celebrating and preserving the Mary River. When the Traveston Dam proposal was first announced, I spoke with several like-minded friends, proposing to form the 'Sisters of Mary'. It immediately struck a chord with them and we proceeded to ask others and have few get-togethers.

Secretly, however, the seed had been incubating since 2004 when I saw the Bathing With Mary site-specific art installation on the Mary River next to Federal Hall. When I sat at Suzanne McLean's installation, an old wooden chair and desk, to write my 'letter to Mary' I realized that that Mary had in many ways prescribed my life. From my birth in Maryborough Base Hospital, near the site of the Kabi Kabi's old Moonaboola camp, to my current job teaching school in the Mary Valley, the Mary Catchment is my country.

I lay awake after writing my letter to Mary, and contemplated the women I knew who have expressed sisterhood with her: weaving baskets with cat's claw they've stripped from her banks, caring for the 'elusive long-tails' as they dive in the river, camping at Cedar Grove, canoeing the rocky narrows. I dreamed of camping with these 'sisters' and getting to know our river better. And not so long

after, I did get the chance to do a two-day canoe trip with a group of friends. However the trigger that really caused the seed to germinate was the announcement of the Beattie government's plan to dam the Mary at Traveston.

Our modus operandi is that women do have a special bond with rivers, as noted in the Rio De Janiero environmental summit. We felt that in taking a name which hinted at religious orders we were not being disrespectful but in fact honouring the mother principle which is represented in many Christian orders by Mary and a thread of environmental respect common to all great religions.

How are we organized, how do people join? One member likes to call it 'a loose alliance of loose women' but in fact we are a mostly mature group of currently about 40 people, including educators, farmers, scientists, artists, writers, historians, media and welfare workers, environmental scientists and musicians. (A few special men have been brave enough to express sisterhood with Mary). Sisters of Mary has no formal membership fees or forms. I keep an e-mail data base, and I try to pass on the suggestions and possibilities that eddy and flow around and past me.

We have tried to maintain a positive focus, promoting initiatives such as riverbank

clean-ups, and raising the profile of the river in terms of its biodiversity and unique endangered species, and its central role in the artistic and cultural life of the region. We make appearances at rallies and events dressed in the blue and green colours of our 'order' and try and present some light relief with songs and skits that are humorous but have a sting in the tail.

We organised the River Appreciation Day in Gympie near the river on Sunday 22 October, a program of literary and cultural events and speakers from Save the Mary, Landcare, MRCCC and indigenous representatives. Our longer-term goals include running a multi-site Mary River Festival in 2007 with associated artistic and cultural build-up activities, with some sited in the Mary Valley townships which are hardest hit.

I'll finish with part of the 'Sisters of Mary' Song (to the tune of Leonard Cohen's Sisters of Mercy for all you old hippies):

Well, the Sisters of Mary they are not departed or gone.

They seek to ensure that the Mary will always flow on.

The people, the valley, the creatures large and small,

Let our mother Mary continue to nourish them all.

Contact Zela Bissett and the Sisters of Mary at zela@spiderweb.com.au

Remaining committed regardless

Don & Hazel ROSS
 Black Mountain Range
 Catchments Project
 Participants

When we decided to retire to the Mary Valley at Carters Ridge, Hazel and I believed we still had the energy to make a difference to a small part of the planet and leave it in a much better state than when we bought it. Cat's claw creeper hung from the trees along Happy Jack Creek and the pastures were full of thistles, lantana and wild cotton. In general the land, from years of overstocking and neglect, was going to need a lot of work and commitment to bring it back to anything like what we envisaged. We had an interest in cattle and were also keen environmentalists so our development plan included the notion of limiting the cattle to certain areas of the property while committing a couple of acres for the house, gardens and orchard, and leaving the balance as wildlife habitat.

Four years later, the dream is taking shape after hundreds of hours of digging, pulling, slashing, and poisoning. With the help of Noosa & District Landcare we have addressed the tunnel erosion problems by fencing off and planting out the affected areas. Landcare provided the trees and a grant towards materials as well as organising Green Corps to help with planting. Today the trees are sending down their roots to bind the soil and the prospect of further siltation of the creek has been arrested.

Subsequently, we were invited to be part of the Black Mountain Range Catchments Project by project officer Joel Bolzenius of Noosa & District Landcare, because Happy Jack Creek was one of three creeks in the project. The Green Corps team moved in to poison cat's claw and camphor laurel along the waterway and

a corridor of trees was planted out and fenced to connect significant stands of trees to the creek. An application was made through Landcare to seek funds through the Australian Government Envirofund to fence off the cattle from the creek, and funds were approved towards fencing and off-stream watering.

Of course it hasn't all been work, for we have been afforded the joy of watching the trees and plants grow and change with the seasons as the birds and animals reveal their lives to us. Echidnas waddle by at dusk, we have the occasional rare sight of a platypus, and the wallabies and hares are becoming less startled by our presence. The skies are frequently filled with the mournful sound of flocks of black cockatoos or the piercing sound of the magnificent wedge tailed eagles as they visit from their lofty homes on Black Mountain Range. As we have developed the property we have become more aware that we must include each of these creatures in our thinking by maintaining and enhancing habitat that ensures sustainable biodiversity.

So, you can imagine our joy when Joel arranged a field trip by MRCCC project officer Eva Ford who discovered significant populations of the endangered giant barred frog on our stretch of Happy Jack Creek. Suddenly, maintaining the integrity of the creek banks has become that much more important!

But all of this to what avail?

A dam proposal threatens to destroy this mysterious and environmentally significant area FOREVER!!! The hard work and money of individual



Giant barred frog found at Don and Hazel Ross's property, where they have carried out extensive revegetation works.

[Photo: Noosa & District Landcare]

landholders, alongside that of bodies such as Landcare, the Natural Heritage Trust, the Commonwealth Envirofund, the Burnett Mary Regional Group and the local councils who have spent so much of the time of their personnel and many millions of dollars to save the Mary River and its catchments, may all add up to nothing.

ALL OF US WHO HAVE WORKED OVER TIME TO PLAN FOR THE LONG TERM SURVIVAL OF THIS PRECIOUS ECOSYSTEM MUST ENSURE OUR EFFORTS ARE NOT IN VAIN.



CVA and BMRG Working Together

A partnership between BMRG and Conservation Volunteers Australia (CVA) means CVA Better Earth Teams of 6 to 10 volunteers (often comprised of international volunteers) will be regularly providing on-ground labour support to community groups throughout the Burnett Mary region.

In coming months, Barung Landcare (including Booroobin Bushcare) and the Cooloola Shire Council will benefit from this partnership, as CVA teams assist with weed removal and tree planting.

This partnership provides an opportunity to showcase our region to an international audience and help secure the future of our region's natural assets.

Water Welfare

Eva Ford
Mary River Catchment
Coordinating Committee

What's big, wet and all around us in large quantities but only available in tiny amounts?

Yes, it's the stuff we grow our crops and stock with, what we wash in and drink and what helps make just about all of our manufactured items and power.

Of all the water on the earth only 3% is fresh. A great deal of this is locked up in the polar regions leaving just 1% available for people, plants and animals to use. Not a great deal is it?

Many who live in Australia are getting a very rude and rapid awakening as to the limitations of this resource, and a lesson in how much we assume 'predictable' weather cycles will continue for our benefit.

For all our technical expertise and ability to alter our environment to accommodate our needs, it seems that we are now, more than ever, at the mercy of changing weather; with fingers crossed waiting for that flooding rain so we can forget about it again for a while.

I've heard a story about an area in America that lost electrical power for up to a month, after an icestorm (this was a few decades ago). It was decided that everyone would change their working and schooling hours so that eveningtime activities could be carried out during daylight. They saved billions of dollars in electricity.

I immediately thought of the other resources that would also have been saved: coal and water among others.

It reinforced to me that we can save our resources but we choose not to until times are desperate.

How much more desperate can we be than a region of almost 2 million people running out of water during the next 2 years with only the prospect of a couple of dams being built after the fact and the dim promise that they will fill in a hurry?

Residents are ordered to relent from watering their gardens but still use power as normal, drink soft drinks that require 200 litres of water per \$2.00 softdrink to produce, and eat rice that requires 21,000 litres to produce 1 kilogram!

Eva Ford entertains and informs at Bauple State School.



Following is the breakdown of water use in Australia provided by the Bureau of Statistics (as %):

Agriculture	67
Households	9
Water supply, sewerage and drainage services industry	7
Electricity and gas generation industry (excluding hydroelectricity)	7
Manufacturing industry	4
Mining industry	2
Other industries	3

Reticulated and rural water supplies have to cater for much more than household use. Water restrictions around the home are a good move towards water conservation and ultimately the environment from where it comes, but more could be done to help people understand that all the travel in cars, all the power used in the home and the manufactured items they buy all use huge amounts of water.

We at MRCCC love our catchment and all that it provides for human and environmental benefit. But water is scarce and precious and there is no point thinking about economic and population growth if there is not enough to go around.

MRCCC spends a great deal of time talking with school children about water quality and using water wisely. These are the people we hope to enlighten in an effort to take the pressure off our water resources in the face of ever-increasing population levels.

The kids we talk to are eager to accommodate changes in lifestyle to reduce water use. Are the rest of us as willing?

To arrange a Turn off the Tap visit from MRCCC to your school, contact Eva Ford on mrcceva@qldwide.net.au or 5482 4766.

Dairying in the Burnett Mary

If you farm in the East Gympie area, you may be eligible for a new incentive program through BMRG.

In partnership with Queensland Dairyfarmers' Organisation (QDO), BMRG is trialling competitive tenders in the East Gympie region.

A competitive tender is similar to a devolved grant, except that:

- There is a focus on the environmental outcomes,
- There is more flexibility for farmers to suggest different approaches to managing issues, &
- Only the most cost-effective proposals from farmers are selected.

The key land management issues and activities targeted under this trial are:

- Effluent management systems, &
- Riparian management actions.

For more information, contact Theresa Kunde on 0428 147 749 or tkunde@dodo.com.au

Fishing for Fun & the Future

DVD - just \$5

Hints and suggestions on fishing responsibly and safely – for both you and the fish that you release!

- Crimping barbs
- Collecting local bait to avoid introducing pests
- Excluding turtles from your catch
- Angling to lip-hook instead of the fish swallowing the hook
- Handling and releasing fish safely

Presented by
David Whelan, fishing journalist

Contact Tiaro Landcare
on 07 4129 6206

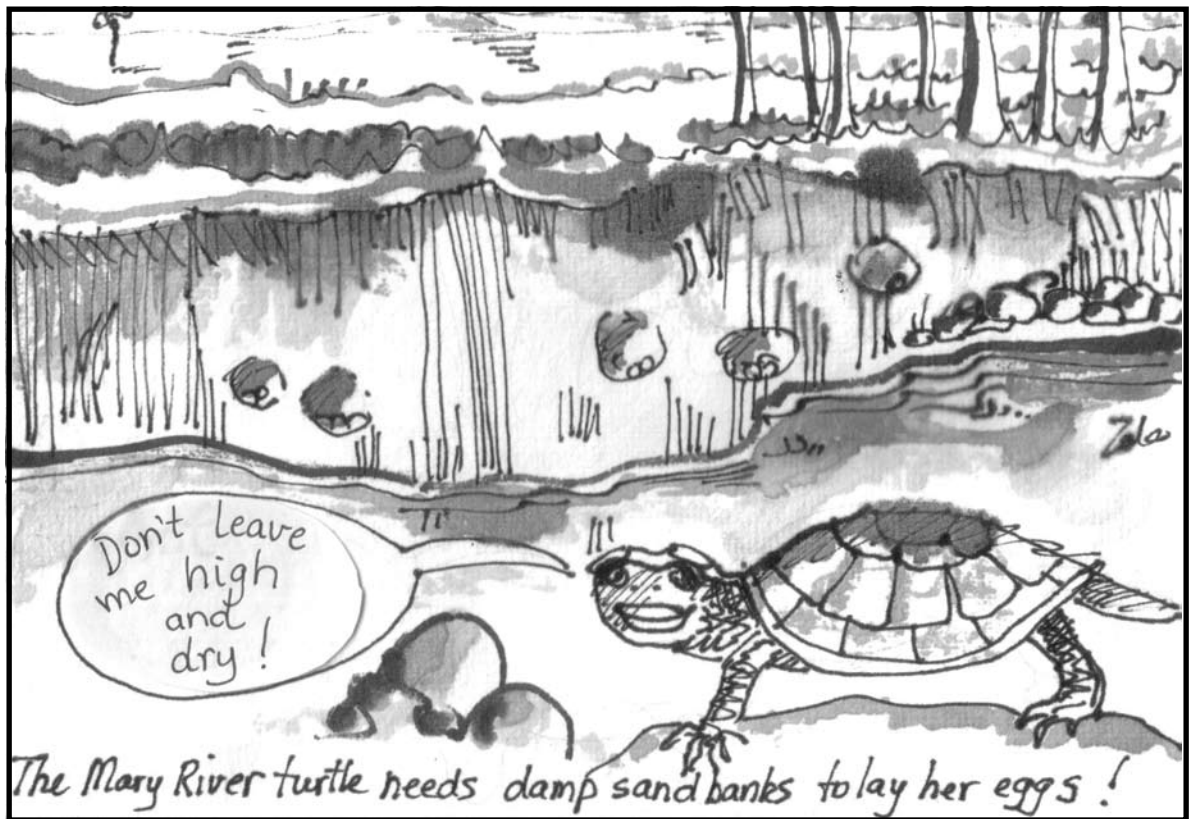
Produced by Tiaro Landcare with funding from NHT through the Burnett Mary Regional Group

Make your own postcard

Your 10-step guide to helping rare animals by Zela Bissett

1. Colour in the cartoon of a Mary River Turtle.
2. Cut out the picture and glue it onto a piece of card.
3. Choose one of the four politicians below.
4. Write the name and address carefully on the back of the card.
5. Add a sentence on why you care about endangered animals in the Mary River OR copy the sentence below.
7. Sign your name.
8. If you have room, you can also put your address. You might get a reply.
9. Put a stamp in the top right corner.
11. Put your postcard in a letter-box.

Here is your postcard.
Colour it first!



A sentence
to copy:

Please help save the animals of the Mary River!

Choose from these to write to:

The Hon. Warren Truss MP
Deputy Leader of the Nationals; Minister for Trade
PO Box 283
Maryborough Qld 4650

Greg Hunt MP
Parliamentary Secretary to the Minister for Environment
PO Box 274
Hastings Vic 3915

Senator The Honorable Ian Campbell
Federal Minister for Environment and Heritage
GPO Box 787
Canberra ACT 2600

The Hon. Malcolm Turnbull
Parliamentary Secretary to the Prime Minister
PO Box 1840
Bondi Junction NSW 1535

The **COD**Line

is hosted by

Barung & District Landcare Group.

Additional support from the
Mary River Catchment Coordinating Committee
Burnett Mary Regional Group
Woocoo Shire Council
Wide Bay Water Corporation
is gratefully acknowledged.



WORKING FOR OUR
FUTURE



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MARY RIVER



CATCHMENT
COORDINATING
COMMITTEE

Please note: The opinions expressed by landholders contributing to the *Cod*Line are their own! Contributions from landholders caring for their land for the future health of the Mary River catchment are always welcome.

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The CODLine

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Issue 15: November 2006

Print Post Approved
PPP# 440524/00004

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MAIL**

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