



Capricorn Conservation Council continues to represent the environment on some very pertinent environmental issues.

Anchor Zones discussion

CCC was involved in consultation with Great Barrier Reef Marine Park Authority to discuss whether the Capricorn Marine Parks areas require anchor zones.

Reef Resilience Workshop

CCC took part in the Reef Resilience Workshop which involved members of the community in learning about reef resilience factors and some field time to select resilient reef sites in the Keppels.

Nathan Dam TOR Submission

CCC made a submission to the Terms of Reference which will inform the Nathan Dam Environmental Impact Assessment.

GKI Lot 21 Submission

CCC responded to the call for community input into the planning process and made a submission outlining the importance of protecting Great Keppel Island's Lot 21 from inappropriate uses. A copy of the submission will be available on the CCC website.

Submission towards Q2 Vision

CCC responded to the call for community input into the State Governments Q2 Vision. CCC feels that protecting GKI Lot 21 is in line with the intent of Q2 to increase protected Conservation areas.

Flood dewatering on Fitzroy

CCC has been actively collaborating with concerned members of community, Agforce and Government Agencies in light of the emerging water quality problems attributed to the flood dewatering operations of Ensham and Goonyella Mines.

Fitzroy River TWG

CCC along with Government representatives, stakeholders and scientists has joined the technical working group to deal with the issues associated with mine dewatering operations and to represent the concerns relating to environmental health.

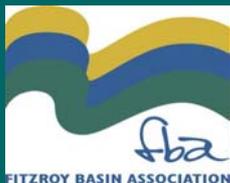
Callide GW Community Reference Panel

CCC attended the final meeting which was held in Biloela, with the next step in this process being to get involved with the review of the Fitzroy Basin Water Resource Plan.

Sea Bird Rescue Workshop

Twenty two people attended the workshop, with people traveling all the way from Moura and Agnes Waters and including two zoo-keepers from the Rocky Zoo, a QPWS Ranger and the RSPCA. The workshop was conducted by Hammy Forrest from the Pelican and Sea Bird Rescue Brisbane. Hammy also brought with her the Pelican Manual which was well received with more being sent for those who missed out. The practical at the Zoo of a capture went well. It would have been nice to capture a Pelican but of course we got an Ibis instead.

CCC funded by:



Department of Environment & Heritage
GVEHO

Environmental Protection Agency's
Conservation Grant

CCC Contact Details

Phone: 4927 8644
Fax : 4927 8279
The Hut: Haigh Park, 1 Livermore St
Postal: P.O. Box 4011,
Rockhampton 4700 Q.
Web: www.cccqld.org.au
E-mail: ccc@cqnet.com.au

Views expressed in this newsletter are not necessarily those of the Capricorn Conservation Council Inc., or of the editors of the Topic of Capricorn.

***Join as a member of Capricorn Conservation Council
Support the conservation lobby in Central Queensland!***

Coordinator: Alison Jones 4927 8644
Newsletter Editor: Sara L Hanggi

CCC Management Committee:

President: Ian Herbert
Vice-President: Crystal Jaspersen
Treasurer: Graham Lightbody
Secretary: Pamela Malyszek
Members: Bruce Young
Mike Danaher
Glyni Cumming
Marie Seeman
Bruce Zimmer



Comment on Flood Dewatering Operations Written by Sara Hanggi

Ensham Mine has done well to share as much information as possible with members of the community, but at the end of the day, sharing information is independent to the issue namely declining Water Quality in the Fitzroy Basin.

All the transparency in the world cannot negate the damage which has been done to the Fitzroy river as a result of this catastrophe and it is mind-boggling to think that the EPA actually approved the whole dewatering process due to pressure put on them by a mine who needs to get back into operation.

Noone has thought laterally on this one! All of that water could have been kept for use in existing and expanding mining operations. The massive requirement for water by Mines is one of the primary reasons why the Nathan Dam is proposed for the Dawson, so tell me again why all that water has been pumped back into the river instead of being piped to someone that has a use for it? Truth is that this water is actually unsuitable even for Mining purposes because it is contaminated with trace metals such as Selenium, Aluminium, Lead, Iron and other nasties which are bound up in salts. Yes that's right, contaminated! Ask the communities living in Blackwater and Tieri how that contamination has impacted on their lives! Ask the farmers how it has changed the way they manage their resources and the big question which still remains to be answered is,

How will this affect the environment?

The words of my chemistry lecturer echo in my head like a ghost... *'Dilution is not the Solution to Pollution'*. I can't help but wonder if the EPA happened to consult with any respected pollution scientists prior to approving the dewatering? Did EPA perform adequate and independent testing of Water Quality prior to approving the dewatering? Did they investigate the Biochemical Oxygen Demand, Chemical Oxygen Demand or contaminant loading of trapped floodwaters? I think we all know the answer to that!

It is no use to cry over 'spilled milk', but some very real concerns remain to be dealt with. For instance, what is happening in the sediment? What happens if we don't get the 'expected flows' to 'dilute' the system?

What about dependent ecosystems?

The Fitzroy River Turtle has a restricted diet and habit and depends on healthy populations of macrophytes which inevitably are rooted in the sediment, and little Fitzies, also spend a lot of time sifting through the sediment hunting for invertebrates. We also know that this turtle needs highly oxygenated, pristine water. This is the requirement of just one dependant species and there are countless others to consider.

Another concern relating to water supply arises in times of drought when the water level in our storages gets low. If the sediment is contaminated, this issue will become critical for all of us, who depend on this water as our source of life. In retrospect, I want to know, how the water resource could be managed in such a *negligent manner* without any due consideration of the *precautionary principle*?

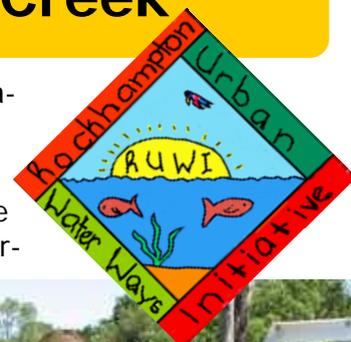
Water Quality Workshop on Moores Creek

Yet another RUWI workshop has come to pass, headed up by Fitzroy Basin Association's Rachel Bryan and Great Barrier Reef Marine Park Officer, Di Schaaf.

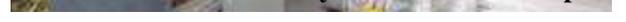
Using charts and guides we examined aquatic invertebrates which were caught at Moores Creek and we became acquainted with some interesting little beastie's. The aquatic invertebrates that were found in Moores Creek were species that were tolerant of pollution levels and there was an absence of indicator species such as the Lacy wing which is known to be sensitive to polluted waters.

Using indicator strips we examined the levels of nitrate, nitrite, ammonia and phosphorus in the creek. We were surprised to find that these common pollutants were present in low concentrations, but these tests are used as indicators only and more rigorous sampling regime is required to determine the health of Moores Creek.

The quality and health of urban waterways is of high importance because ultimately these feeder creeks to the Fitzroy can be significant contributors of contaminant flows to the Reef.



Di Schaaf & Rachel Bryan host the workshop



Fitzroy River Water Quality by Ian Herbert

Following the Jan-Feb floods in the upper Nogoia River, levee banks at Ensham Mine, 35km east of Emerald, were overtopped and river water flooded into open cut pits at the mine.

After the flood about 150,000 megalitres of water remained in the pits. The company was desperate to pump the water out so that they could resume mining operations. They obtained a Transitional Environmental Program (TEP) from the Environmental Protection Agency (EPA) to allow the water to be discharged into the Nogoia River. Since then about 138,000 megalitres has been pumped out; however pumping stopped in September 2008.

The TEP allowed Ensham to discharge water with a salinity level up to 1200 $\mu\text{S}/\text{cm}$. [Salinity is measured by Electrical Conductivity in micro Siemens per centimetre ($\mu\text{S}/\text{cm}$). Drinking water is between 0 and 1500 $\mu\text{S}/\text{cm}$ and sea water is 55,000 $\mu\text{S}/\text{cm}$.] They also allowed 3000 $\mu\text{S}/\text{cm}$ water to be released from Goonyella Mine into the Isaac River. These numbers seem to be based on the fact that the Nogoia and MacKenzie Rivers are used for town water supplies (Blackwater, Tieri, etc) while the Isaac River is not directly used for town water.

At the later stages of the pumping operation, three things happened.

(a) The natural flow in the river from Fairbairn Dam reduced to zero.

(b) The water had been sitting in the mine pits for many months, and the longer it was there the more contaminants were dissolved out of the exposed rock of the pit walls.

(c) The very cold winter months, and low flows, contributed to the stratification of highly salty water in the bottom layers of the water stored in Bedford, Bingegang, and Tartrus Weirs. Intake pipes for town supplies were at the bottom but have since been lifted up to draw from the better water in the top layers.

Ensham Mine purchased 60,000 megalitres of water from irrigators which was released from Fairbairn Dam to help dilute their contaminated mine water.

Qld Water Quality Guidelines indicate that the normal levels for salinity in the Fitzroy are between 130 and 510 $\mu\text{S}/\text{cm}$. We do not know the effect on the natural aquatic ecology of this river system from prolonged exposure to water above 510 $\mu\text{S}/\text{cm}$.

We are highly critical of EPA for allowing high levels of salinity in the river water. It is hard to believe that they considered the natural environment at all in making the decision. Despite denials from EPA we suspect that they bowed to undue political pressure to issue the TEP.

The four main areas of concern are – (1) Human health, (2) Agriculture (irrigation and stock watering) (3) Industry – specifically Stanwell Power Station, and (4) The natural aquatic and riparian ecology of the river system. The first three have received plenty of publicity. CCC's role is to keep pushing on number four.

More detail is available from the EPA website at:

http://www.epa.qld.gov.au/environmental_management/water/fitzroy_river_water_quality/

There are links on the sidebar to weekly updates and other information. Clearly, salinity is not the only issue and we are concerned about a host of other contaminants. The page "Fitzroy Water Quality Data and Information" gives dissolved metal concentrations for Bedford Weir, etc.

CCC is represented on the Fitzroy River Water Quality Technical Working Group (TWG) which meets weekly to assess the latest information, recommends solutions if possible, and helps prepare the weekly update. Several months ago we had quite a battle trying to convince others on the TWG to ensure that all test results were made public and not hidden within internal departmental reports. While this problem is mainly overcome we still need to be vigilant to keep the process open.

At present there is a 400km 'slug' of saline water in the Fitzroy River from Bedford downstream with salinity levels of ~1200 $\mu\text{S}/\text{cm}$. The lower reaches of Eden Bam weir and Barrage are between ~600 and 900 $\mu\text{S}/\text{cm}$ (Adelaide drinking water is currently ~600-900 $\mu\text{S}/\text{cm}$).

We are now eagerly awaiting the first results of a detailed study being undertaken by EPA to look into all aspects of this water quality issue, in particular the effects on aquatic ecosystems.

Protecting the nests of the Fitzroy River Turtle

Written by Sara Hanggi

Well it is that time of the year again and Fitzroy River Turtles across the Basin are doing their bit for the survival of the species and are getting down to the serious business of selecting mates and suitable nest sites.

I accompanied Greening Australia Wildlife Conservation Officer, Pamela Malyszek to a picturesque location on the Fitzroy which is characterised by a series of sand-bar islands. One of the sandbars known as Turtle Island is vitally important as Fitzroy River Turtle nesting habitat.

Pamela has been working here over the last two nesting seasons to protect turtle nests from predation by foxes, pigs and goannas. Some of the surrounding sandbars are well-connected to the rivers edge and present no protection from voracious predator species but by comparison Turtle Island is completely protected by water which means any nasty feral pig or ferreting fox would need to brave the murky waters and resident crocodiles to get to the popular nesting site.

We visited the sandy banks on many of the river sections and Pam would point out the tell-tale sign of turtle nesting. A series of unique though almost inconspicuous tracks from the waters edge up steep sandy gravel banks showed where hardworking female Fitzroy River Turtles have come ashore and we followed these to look for nest sites.

At times we would follow these tracks and find a nest. Much to my delight on this morning, we found 3 nests. An angel shaped depression and slightly disturbed sand was a main indicator that the turtle had nested and when Pam saw this she would dig carefully into the sand to search for eggs. Often however we would see patches of empty egg shells which had been dug up and eaten by predators.



Pam holds up a female Fitzie which she found stranded on its back. This turtle is the largest recorded and had three clutches in one season. What a great effort!



Pam places the tiny turtle eggs in a safer nest site. The original nest was at risk from predators like foxes and pigs.

Pam found one very unsuitably situated nest site which was very close to the waters edge in wet sand. The exposed nest had 5 new eggs but outside of the nest lay 6 broken shells which had been eaten. These eggs needed to be relocated so Pam dug a nest high up on the sandy bank underneath a maleleuca shrub and after having carefully placed them into their new hatchery she covered the nest with netting to offer some protection against digging predators. Little Fitzies are very small so when they hatch they are easily able to crawl through the netting and scramble down the steep slope to the protection of the water.

Surprisingly there were not always nests at sites even though there were tracks, and many potentially suitable sandy banks were not visited by the turtles at all. Pam and I discussed what factors might trigger the turtles to lay and what influenced their choice of a nesting site. I realised that our understanding of this species is poor and much more research is needed to understand the unique ecology of our endemic bum-breathing Fitzies.

To that end, the work which Greening Australia is doing is vital, because with high predation rates many turtles don't get a fighting chance and every egg lost to predation is a threat to the survival of the species.

**If you want to help with the Fitzroy River Turtle Conservation Project
phone Greening Australia Officer Pamela on 4923 7542 to register as a volunteer.**

phone Greeting Australia Office Pamela on 4728 7342 to register as a volunteer.

THE GREAT BARRIER REEF

A World Heritage Listed wonder right on our doorstep

Home to a diversity of 1500 fish species, 350 hard corals, 5000 molluscs, internationally protected marine creatures including dugongs, cetaceans and turtles and consisting of over 3000 reefs, 600 continental islands and 300 coral cays, the Barrier Reef is an iconic natural wonder.

Those of us living in the Capricorn Coast and Central West are lucky to have this world heritage listed wonder right on our doorstep. People travel from far and wide to experience and explore our tropical paradise and often no expense for an experience on the reef is spared.

Government is investing millions of dollars into reef rescue and this is becoming all the more important because of the changing climate. Despite the money being invested, the threat of climate change is imminent and Professor Garnaut has predicted a high probability that we will lose our precious Great Barrier Reef if atmospheric carbon dioxide levels advance to 550 ppm.

This is a damning reality which can easily make us feel like the problem is too large or too complex to tackle especially since in a global context there is much 'dragging of feet' when it comes to implementation of policy and regulation to reduce carbon emissions.

For most of us there are some simple ways we can reduce our carbon footprint, we just need to start step by step and account for our everyday actions.

Our Great Barrier Reef needs us all to give it a helping hand, whether it be switching off that airconditioner, switching off appliances at the wall when not in use, taking a walk instead of using the car, or installing solar systems can make all the difference.



Act locally to reduce global CO₂ emissions!

What is reef resilience?

Resilient reefs are those reefs which have an ability to withstand and recover from disturbance. Often resilience is used to describe reefs which are able to rapidly recover after coral bleaching events.

Ecological, Biological and Physical factors are used to identify reefs which are likely to be resilient to detrimental changes and stressors.

Ecological factors include processes that maintain reef function and support ecosystem integrity including herbivory and recruitment.

Biological factors such as genetic and species diversity and Physical factors such as cooling, shading, screening and stress tolerance all come into play when assessing whether a reef is resilient to change.

Council to update CCC on Dump site

Members of Capricorn Conservation Council are invited to a public talk with Rockhampton Regional Council representative Craig Dungleison.

Mr Dungleison will update CCC on the issues of Landfill and recent developments in the proposed new Landfill (which is located in the Hedlow Catchment).

The meeting will be held at **5:30pm** here at the Capricorn Conservation Council Hut, 1 Livermore Street on Wednesday the **25th of November, 2008**.

Now is the perfect time to inform yourself of the issues to do with waste management, councils recycling initiatives and proposed landfill site.

We all bear a responsibility to reduce and recycle our waste products! With increased population growth in the CQ region, dealing with waste is a critical environmental issue for our entire community to consider.

Mexican Feather Grass Invasion

DPI & F Biocontrol officers are asking members of the community to keep on the lookout for a new invasive Mexican feather grass, *Nasella tunissima*.



They are requesting that any landowners who suspect they have this invasive grass to take a photo and call **13 25 23**. They have urged landowners not to attempt to remove the grass because of its propensity to spread via seed. This pesty grass has mistakenly been sold through nurseries and landscape outlets as *Stipa capillata*, *S. lessingiana* and *As-trostipa elegantissima*.

The Long Paddock

A message from the Stock Routes Coalition

The network of stock routes in Queensland runs the length and breadth of the state. The trails support wildlife and native vegetation in linked corridors across the landscape. But these stock routes are under threat. A number of groups have formed a “Stock Routes Coalition” that wants to preserve and make the most of the network’s wildlife, conservation and heritage values alongside its value to the pastoral industry.

Stock routes or the “long paddock” forms a 72,000km network of trails on public land covering 2.6Mha. Their primary purpose is to support bona fide travelling stock. Whatever its width, it is deemed a public road and most of the stock route network is managed by individual local authorities. The pastoral industry pays fees to the local authorities to use the stock routes.

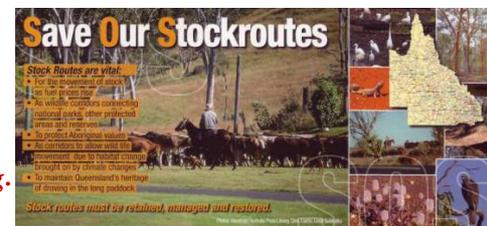
A State government report looked at the costs of the network and ignored its other values. The report did not recommend a proper management plan for the future of the network.

Stock routes need a future. If the State government allows permanent grazing on the network, the stock routes’ biodiversity will be damaged and travelling stock can’t use it. If proper management isn’t put in place by the State government soon, the values of the stock route network will be degraded. If rehabilitation of the network is not funded by State government its value will continue to decline.

Stock routes are valuable as wildlife corridors connecting the landscape to protect cultural values as buffers against climate change impacts for moving stock sustainably without transport costs.

The Coalition wants the Queensland Government to agree to:

- 1 **Protect the stock routes in law.**
- 2 **Manage them consistently and properly.**
- 3 **Support and improve the stock route network with adequate funding.**



If you wish to learn more about the ‘Stock Routes Coalition’ please go to their website:

http://stockroutes.info/portal/component/option,com_frontpage/Itemid,1/



Message from CCC President Ian Herbert

With Xmas looming, now is the time to get a copy of *Plants of Capricornia* by Melzer and Plumb as an ideal Xmas gift. With only 200 copies left, don't leave it too long or you might miss out.

It will never be reprinted; so get your copy, or even a spare copy, before it becomes collector's item.

I wish to order <i>Plants of Capricornia</i> by Melzer and Plumb.			Price (GST Incl)	Number	Amount
Name			\$65 per book		\$
Address			Post and pack- see table below		\$
	Pcode		TOTAL \$		
Email		Phone			
Payment Options:					
Either <input type="checkbox"/> Cheque or Money Order payable to Capricorn Conservation Council Postal Address: PO Box 4011, Rockhampton Qld 4700			Or:- <input type="checkbox"/> Direct bank credit to ANZ Bank BSB = 014-690 Acc Nr = 4912 68991 Acc Name = Capricorn Conservation Council Please include your name in the bank transaction. Then write your bank transaction details below:		
Post and packing charge			Date	Amount	Bank Transfer Number
	Qld	Other states			
1 book	\$12	\$16			
2 to 4 books	\$16	\$25			
5 or more books	Price on application				



Do you have a Bird Bath in your Backyard?

By Darryl Jones
Griffith University



We are interested in hearing about the use of bird-baths in any setting – suburban backyard, farm, inner-city apartment. In the context of the prolonged drought that much of eastern Australia has been experiencing it is likely that the bird-baths provided by people in their house yards are of great importance for the survival to many species. Remarkably, almost nothing is known about this potentially significant activity. This project aims to start the long process of understanding faunal use of bird-baths, as well as the motivations of the people involved. There are three ways that you can be involved.

First level: Starting simply

With so little known, even the most straight-forward observations can be important. For example, a simple list of the species that are known to have visited your bird bath/s will be useful. Even better would be information on when and how often – there are often specific times of the day or the year when birds come. A simple note describing these things would be very helpful to us.

Second level: A bird-bath diary

For people with more time and interest, we would like to invite you to keep a slightly more detailed diary of bird-bath visits. We recognise that most people cannot sit and watch their bird-bath throughout the day but it may be possible to keep a note-book handy and jot down the species, how many individuals came, the time of day and any other relevant notes. For example, your diary entries might look like this:

Date	Time	Bird Species	Number of individuals	What it did
12/7/08	7.35am	Noisy Miner	3	Chased away the Crested Pigeons
12/7/08	8.05am	Crested Pigeon	2	Drank and flew off
12/7/08	4.45pm	Silvereve	4	Bathing vigorously

Third level: Timed observations

This would be best for people who are able to watch their bird-bath/s either regularly or for extended periods of time – say an hour or so. These observations aim to record more detail about the visit, such as how long the birds stayed and whether there were any interactions with other species – especially displacements.

Finally, we are inviting everyone to write a simple explanation of why you have bothered to buy and maintain a bird-bath at your place. There is no 'correct answer' to this; we genuinely would like to know why you like to provide water for wildlife.

Please send all information, queries and questions to Mr. Darryl Jones
Griffith University School of the Environment, Griffith University, Nathan Qld 4111
or email to D.Jones@griffith.edu.au

JOIN / RENEW YOUR MEMBERSHIP WITH

CCC Annual Membership Form

Name _____
 Address _____

 Phone _____
 Email _____
 Date _____

Please select

- Non-Wage Earner \$5
- Individual \$10
- Family / Group \$15
- Corporate Member \$50

I/We would like to make a one off donation

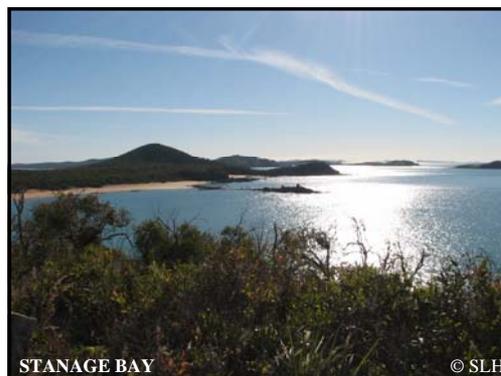
Donation \$ _____

All donations over \$2 are tax-deductible

**Return to: The Hut, Livermore Street
Rockhampton 4700**

Send to: PO Box 4011, Rockhampton 4700 Q

Have you renewed your membership?



Want to support a group that is independent of government, industry and commerce?

Want to lobby for conservation of the regions natural resources, rainforests, rivers and reefs?

CCC provides an excellent platform for members of community to achieve Conservation outcomes!

Join Today and Help us Fight for the Environment!

Send to: PO Box 4011, Rockhampton 4700 Q

Join Today and Help us Fight for the Environment!