



MAROOCHY RIVER CATCHMENT

NOV/DEC 2012

EDITION 35

Christmas greetings to all!

I have to say that the last few months have been a time of change for Maroochy Waterwatch.

The axing of the Skilling Queenslanders for Work Initiative was particularly hard to take for me personally as it has been over ten years of working with the Dept of Employment in delivering world class training to locally unemployed people in revegetation and business administration. The positive lifelong changes that we were able to bring to the participants were very rewarding along with the value added to our environmental projects.

In this time of uncertainty I also don't know about the future of our Qld Environmental Sustainable Schools Initiative. However, there has to be some silver lining in the grey clouds and keeping me positive is knowing the great support the organisation has in the community.

I would like to thank all the people who responded to the survey about the possible name change.

It was encouraging to see the ownership that members and the general community have of our name. It is therefore important that we keep this identity for our activities associated with the river. On the other hand, there is a need to be thinking outside the box and looking for other opportunities to attract resources in order to survive. Experience strongly suggests that this requires an identity that is seen to be broader in environmental scope.

The board and I are currently looking at a range of structural options, particularly in light of being forced to become a company limited by guarantee in the near future as part of the federal government's not for profit reform.

I would however like to assure members that the Maroochy Waterwatch name and activities will be retained as long as the funding continues to support our volunteers, education, community engagement and field activities associated with the river.

Cont'd p4.



CHRISTMAS BASH

Members....readers....volunteers....staff!

Come share in the Christmas Spirit!

12 noon - Friday 21 December 2012

FOOD AND DRINKS PROVIDED

RSVP 19TH DECEMBER 2012

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Eudlo Butterflies

"Eudlo is a small, semi-rural area about 15km inland from Maroochydore. The countryside is generally undulating and hilly, dissected by Jurassic sandstone ridges and overlain by more recent volcanic rock and soil. Heavily timbered hillsides of wet scleromorphic woodlands and valleys of rainforest are scattered throughout the region. Most of the rain occurs during summer monsoonal activity and late spring thunderstorms and can also be influenced by southern ocean activity.



The Eudlo area has a good diversity of fauna and flora (over 200 species of birds and several endangered plants). Dingoes still scavenge the woods, Goannas, Platypus, Wallabies, Possums and Gliders are often spotted however Koalas appear to be dwindling and Quolls are probably extinct.

There are more than 150 species of butterfly found in the Sunshine Coast, including good populations of the Richmond Birdwing. Several other butterflies are found outside the perimeter of Eudlo but occur commonly within the general Sunshine Coast area.



Photos www.brisbaneinsects.com

Several species migrate through the areas, generally in late spring or early summer. Local migrants travel between habitats: from dry vine forest areas to wet coastal regions, or from forest to forest. Most food plants of migrants are naturally growing in local habitats, and they undoubtedly breed in the Eudlo district or nearby.

The most notable local migrant on the Coast is the female Richmond Birdwing. One female observed in mid-March 2005 arrived directly from the east, and steadily flew above the ocean surf, across the Mooloolaba triathlon, and finally vanished over the high rises towards the southwest hinterland.

The best place to observe migratory flight is from the seashore, paddocks or hilltops surrounded by low vegetation. Cleared corridors can channel the migrants into spectacular dense rolling columns that ebb and flow between gaps and over montane ridges." excerpts from **Andrew Atkins**.

For more detailed information and lists of butterflies please email: info@maroochycatchmentcentre.org.au

I found this story in a newsletter from the Gold Coast Botanical Gardens and wanted to share it with you:

Sandy McBride

"A man found a cocoon of a butterfly. One day a small opening appeared. He sat and watched the butterfly for several hours as it struggled to force its body through that little hole. Then it seemed not to make any progress. It appeared as if it had gotten as far as it could and could go no farther.

The man decided to help the butterfly, so he took a pair of scissors and snipped off the remaining bit of cocoon. The butterfly then emerged easily. But it had a swollen body and small shrivelled wings.

The man continued to watch the butterfly because he expected that at any moment the wings would enlarge and expand to be able to support the body, which would contract in time.

Neither happened! In fact, the butterfly spent the rest of its life crawling around with a swollen body and shrivelled wings. It was never able to fly.

What the man in his kindness and haste did not understand was that the restricting cocoon and the struggle required for the butterfly to get through the tiny opening were nature's way of forcing the fluid from the body of the butterfly into the wings so that it would be ready for flight once it achieved its freedom from the cocoon.

Sometimes, struggles are exactly what we need in our life. If we were allowed to go through life without any obstacles, it would cripple us. We would not be as strong as we could have been...and we would never fly."

This newsletter is proudly brought to you by:

Maroochy Waterwatch Inc. Donaldson Rd, (Behind Uniting Church) PO Box 311 Nambour Qld 4560
Queensland Environmental Sustainable Schools Initiative
Maroochy Catchment Services
Coolum Community Native Nursery 157 Warran Rd, Yaroomba Q 4573
Sunshine Coast Council



Qessi news - Sustainability Education in Schools

The Sunshine Coast QESSI Hub is undertaking an investigative assignment on behalf of Sunshine Coast Regional Council called “Stewards of the Future”.

Through consultation with local environmental education (EE) program and resource providers in the areas of local biodiversity, catchment and coastal care and cultural heritage, a data base of regional resources is being developed.

The consultations, we’ve been conducting with multiple stakeholders including council staff, local community-based environmental organisations, businesses and schools, are contributing to a needs analysis for enhancing environmental education for schools, children and young people of the Sunshine Coast community. The Kids in Action event held at the end of August this year is also a key part of Council’s Stewards of the Future project.

The project comes at a time of maturity for us in our work with over fifty schools in the region during the last seven years helping schools advance their educational outcomes for environmental sustainability and reduce their ecological footprints. Throughout this time and as part of the QESSI approach, we’ve been working alongside, liaising with and promoting the broad range of environmental education programs and providers which operate in the Sunshine Coast region. We’ve welcomed the opportunity to bring the understandings and perspectives we’ve gained around the challenges and opportunities that exist in working with schools and young people, to the Stewards of the Future project.

We’ve consulted with over forty program providers (council, community and industry based) and around thirty students, school and University staff. A number of patterns have emerged in the responses from the people we’ve consulted. These include the importance of enabling children to have deeply engaged experiences in the natural environment associated with a learning purpose suitable for particular age groups. The responses also highlight the need for teachers to be provided with professional development on how to use the rich learning opportunities available from our local natural environment for the mandated Sustainability cross-curriculum component of the new

Australian Curriculum. Program providers in turn would benefit from an understanding of how the EE programs they offer can fit with the new Australian Curriculum in order for school to be more ready to take advantage of the knowledge base contained in these programs.

A Whole school approach to Educating for Sustainability and improving biodiversity in school grounds.

Combining the capabilities of QESSI and Maroochy Waterwatch with local Earth Smart School, Mapleton State School, on October 22 nd pupil free day, Jacqui Smythe, Hetti Malone and Clare Cox conducted a school community workshop with a diverse group of teachers, groundsman, admin and school leaders, P&C executives, parents, grandparents, community members and experts from a range of groups across the region.

Workshop participants achieved their goal to conceptualize designs that will inform planning for 6 specific environmental learning zones designs in the school grounds. These designs will be incorporated into a long term school grounds management plan which includes the goal of protecting and improving biodiversity whilst providing students the opportunity for hands on learning and to participate in the improvements overtime.

As part of the SEMP process (School Environmental Management Plan), this whole school approach will be recorded with learning opportunities linked to curriculum units and activities, integrated into the school plan and connected with the school’s knowledgeable and committed community. The

dedication to undertake this workshop was initiated by Mapleton’s principal, Dr Jen Clarke, who collaborated closely with QESSI’s sustainable schools program facilitator and Maroochy Waterwatch’s ecology projects officer.

Mapleton State School and its active community continue to demonstrate outstanding sustainability leadership at a time when all schools are faced with prolific day to day challenges including adaption to the new Australian Curriculum.

This is indeed an inspirational school community

By Sandy McBride and Clare Cox



Mapleton School Principal and community making rope from natural fibre

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Christmas greetings to all!

Cont'd from Pg.1

We have had a busy couple of months out and about. With Jacqui on holidays, I had the pleasure of delivering a full day workshop on catchment management to 80 Year 7 students from Pacific Lutheran College. Tripping around the catchment they got an understanding of land management issues, water supply, water quality and sewage treatment processes.

A successful community day was held with Mapleton State School to start the planning for a Biodiversity Plan and action within the school grounds.

We also had an international focus delivering a workshop on volunteering to tourism delegates from Lombok as part of USC AusAID Australian Leadership Award Fellowships. Volunteering is not a cultural value in Indonesia, however our presentation has enthused them to form a not for profit organisation to help improve the environment and I will be interested in seeing it develop.

Twenty Year 11 hospitality students from Singapore joined us on a creek exploration activity from North Brisbane TAFE. The students had never seen a natural creek and the life within it. I hope they were able to take away some learnings to their own country.

Locally, we hosted the SC Grammar School with their community service program and had 10 keen students pulling weeds and revegetating on Whalley Creek for 3 days.

We dabbled in selling water refills at the Caloundra Music Festival to support the reduction of purchasing

bottled water. We also had a stall at the LOGOV expo and made some useful contacts and look forward to some good business to community partnerships in the future.

The office continues to be a hive of activity and over the summer months we will once again take on student industry placements.

This year we welcome Melissa from UQ and Jono from USC who will be helping with various projects.

With the additional space available in the office we have been able to accommodate more volunteers and we welcome Peter our new grants writer, Darren who will be assisting Jacqui on projects and Daryl who will start documenting processes etc as we move toward ISO accreditation

We will also have 2 students from the Primary Industry Centre for Secondary Education for one week each. We also placed volunteers in our other activities with nursery work, River Patrol and water testing where possible. Unfortunately we are turning away revegetation volunteer enquiries as I don't have the funds to support supervision on a regular basis. I am however searching for a volunteer who can build a professional website and another to make professional youtube clips/cartoons and other documents using the Adobe Creative C6 Suite.

I would like to thank staff, readers and volunteers for their support, by working together we can look forward to a brighter future in 2013.

Cerran Fawns

Community Awareness with Sunshine Coast Grammar



Sunshine Coast Grammar Community Awareness Programme

Last week some of the Year 10 students participated in an environmental awareness day. Part of the programme provides the students with the opportunity to experience the rewards of volunteer work and helps to provide short term assistance to community and volunteer organisations across the Sunshine Coast.



Student awareness of the work community organisations perform across the Coast is raised and the Awareness Programme exposes students to organisations they may wish to help in the long term. It also introduces the students to knowledge that likeminded people are available for them to approach for guidance paving the way for participating students to share and spread their newfound knowledge to their peers and family.

The programme ran over three days including a visit to Whalley Creek, Burnside for woody weed control, weed identification and rubbish collection. A tour of the Maroochy Catchment via south Maroochy River and finished with rubbish collection along Mooloolah River, rewarded with a welcome swim at the beach.



The programme finished back at the MWW office with an environmental awareness workshop facilitated by Clare Cox of QESSI fame.

**Revegetation Manager
Hetti Malone**

A report from the Environmental Officer's Desk

INTERNATIONAL FLAVOUR—SINGAPORE



Maroochy Waterwatch were invited by the North Brisbane Tafe to conduct some Water Quality training with a group of students aged up to 16. The students were fascinated by the amount of life beneath the surface of what seems a quiet parkside stream. Jacqui showed them the ins and outs of wader safety as well as analysing stream habitat types.

They then enjoyed the process of sorting the macroinvertebrates that were found in each sample and looking at their physical characteristics that make them adapted at surviving in an aquatic environment.



Jacqui and Cerran discussed with the group the reasons that these small creatures are such an important part of an aquatic ecosystem and how human induced change affects their environment. The students were given the chance to see the creatures up close under a microscope and were given some basic skills in identifying the macroinvertebrates to family level.

*Environmental Projects Officer
Jacqui Smythe*

SALVINIA

Unfortunately it is the time of year when Salvinia has again begun to rear its ugly head on the coast. The office is taking many phone calls from concerned landowners who have Salvinia in their dams and are crying for help. The Salvinia Weevil has begun its breeding cycle at the Council Gympie breeding station and in the next few weeks the weevils will be distributed to suitable Salvinia infested properties. If you think you have Salvinia in your dam, please call us for a free assessment.



FROG MONITORING

Riddup Riddup! Its frog monitoring season.

As part of our partnership with Sunshine Coast Council, Jacqui and her team of frog monitoring volunteers will be out and about looking for our friendly Sunshine Coast frog residents. Using spotlighting and call playback methods, frogs are identified. The data is then collated into a report which goes to Council and any other organisation who may be interested in this important information. There are still a few volunteering places available so if you are keen to learn more about this wonderful creatures feel free to call Jacqui at the office on 5476 4777.



Weed Management

Singapore daisy - (*Spagneticola trilobata*)



A vigorous ground cover with lush glossy green leaves. The leaves are usually 3 lobed and in pairs up the stem. It produces yellow to orange/yellow daisy flowers about 2 cm across all year round. The flowers are held above the leaves on short stalks. Singapore daisy is a garden escapee and native of tropical America.

Originally introduced as a stabiliser for river banks however has proved to be unsuccessful in this capacity and has now become a highly invasive pest.

Declared Class Three Weed

Suggested alternatives

Twining guinea flower - (*Hibbertia dentata*)

Evergreen shrub or twining climber, purple flushed new leaves. Yellow Flowers in late winter to late summer - prefers hot overhead sun to warm low sun. Copes from dry extended periods to constantly moist soil. Prefers ordinary, enriched mildly acidic to mildly alkaline soil, tolerates high and first line salt wind as well as light frost.

Sounds perfect !



Fan Flower - (*Scaevola*)

An Aussie ground cover that has many different forms with blue, mauve, white or pink fan-shaped flowers in spring and summer.

This spreading perennial makes a fine carpet and can develop a suckering habit, which allows it to spread further. The spreading stems cover the ground, not more than 45cm high flowering from spring right through to Autumn.

Local native plants have evolved over millennia to become ideally suited to our windy, sandy and salty conditions. Local salt tolerant plants are ideal for this area as they generally require less water, fertiliser and maintenance than exotic plants, or plants from other parts of Australia. In addition they provide valuable food and habitat for local wildlife while maintaining the unique character of the Sunshine Coast.

We provide complimentary expert advice on how to take care of your new plants, what to plant where, and pitfalls to avoid. Give us a call, an email, or drop in with any questions you have regarding native plants. Our friendly staff are here to help!

Coolum Community Native Nursery



Coolum Community Native Nursery
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Maroochy Waterwatch River Patrol

All is quiet on the Maroochy River.



After the earlier episode with the "dead cow", as mentioned in the last newsletter, all is extremely mundane on the river. Collections have been marginally down owing to the ideal weather and minimal run off, unlike last year. However suitable tides of late

have enabled our crews to work areas not normally accessible. But even in these obscure locations smaller quantities have been retrieved compared to earlier times.

For those statistically inclined, 2011 produced 28,755 litres of rubbish from our river, not including larger items including televisions, abandoned craft, old crab pots, etc, etc. Up to October this year the crews have retrieved 23,439 litres of rubbish, equivalent to over 93 large wheelie bins, or almost two bins a week!!

What we are observing is the proliferation of



larger household items dumped in the mangroves (mattresses, furniture, gas bottles, tyres, and such) that are too large for our crews to manhandle onto the good ship "MW Garbo". Perhaps a rise in dump fees has influenced this indiscriminate littering.

One interesting item retrieved was a substantial wooden BBQ seat and table, taking up most of the bow of the boat and a great deal of energy to secure. Recently I saw the same item being renovated by one of the residents at the resort where our boat is located. ***Now that is genuine recycling.***

Crews of three were introduced on most days to alleviate the problem of short notice to reserve members. Being a group of seriously retired gentlemen, there is always someone drifting off on travel excursions so the additional crew member is there to ensure the boat goes out regularly.

Our social BBQ cruise in October was a great success despite the windy conditions, thanks to the generosity of Swan Boat Hire, with 22 crew, family, and friends attending. Of note was a guided tour of the Maroochy Wetlands by one of our skippers, who is a member of that group and a wealth of information on all things mangrove.

For the bird watchers. The pelicans are returning after a long absence with 12 on a sandbank

near Eudlo Creek last week. Have you ever been mobbed by 30 odd



Little Black Cormorants waiting for you to stir up a feed?

Or been close enough to feel the wind and salt spray from its catch of a

White Breasted Sea Eagle? (*hugius flappius*).

Sometimes collecting rubbish is not such an onerous task

Finally the photo included in this article shows admirably the trials, tribulations, and enthusiasm our lads exhibit to retrieve rubbish, in this case a large green wheelie bin near the motorway bridge. Unfortunately we have not seen one of the lads since! Perhaps up to his armpits in mud was not appealing?

**River Patrol Coordinator
Admiral Glenn Bartley**

We received a grant from the Nambour RSL in July to assist replacing our boat trailer. This we will purchase before the New Year as the continual immersion of the current trailer has exaggerated corrosion.

Mechanically there have been no issues for several months, with only the regular servicing and cleaning/safety checks/etc taking place. I do not quiver any more when the phone rings after an earlier bout of continual mechanical problems

THANKS MUST GO TO THE BUNNEY FAMILY FOR THEIR GENEROUS DONATION OF TWO KAYAKS INCLUDING ALL THE NECESSARY SAFETY EQUIPMENT.

These will come in extremely handy to access those places we cannot motor into and a bonus to our endeavours.

Carbon Farming Initiative

The Carbon Farming Initiative (CFI) is a carbon offsets scheme that will provide new economic opportunities for farmers, forest growers and land managers while also helping the environment by reducing carbon pollution. The voluntary program allows farmers and other land managers to earn carbon credits known as Australian Carbon Credit Units (ACCUs), by storing carbon or reducing greenhouse gas emissions on the land that can be sold to people and businesses wishing to offset their own carbon emissions. The carbon credits represent reductions in greenhouse gases in the atmosphere through:

Increasing the amount of carbon stored in soil or trees, for example by growing a forest or reducing tillage on a farm in a way that increases soil carbon; or

Reducing or avoiding emissions, for example through the capture and destruction of methane emissions from landfill or livestock manure.

Credits generated under the CFI are recognized for Australia's obligations under the Kyoto Protocol and count towards our national target of constraining our overall emissions and can be traded on the international market. After the end of the Kyoto Protocol commitment period in 2012, these activities will continue to receive ACCUs that can be used to meet liabilities under Australia's carbon pricing

mechanism. These are referred to as compliance ACCUs. Some CFI activities are not included under the Kyoto Protocol and the Australian Government will also buy some non-Kyoto ACCUs, using revenue collected as companies pay the carbon price. The \$250 million CFI non-Kyoto Carbon Fund has been operational since July 2013. The price the Australian Government will pay for non-Kyoto ACCUs will be no higher than the price of Kyoto ACCUs in the compliance market.

Each carbon credit represents one tonne of carbon dioxide equivalents (CO₂-e) which is used as a standardization to allow credits from different activities that involve methane or nitrous oxide emissions to be traded more easily. Australia's carbon price mechanism started in July 2012 and 500 companies have a mandatory obligation to pay for or offset their direct emissions. The fixed priced period on carbon credits began in July 2012 with a carbon price of \$23/tCO₂-e and rises at 2.5% per year until 2014/2015. The flexible period commences in 2015 where the Government will allocate and auction a fixed number of carbon permits and the carbon price will be set by the market. To limit price spikes and plunges in the flexible price period, there will be a price cap starting at \$20 higher than the expected international price, and a price floor starting at \$15/tCO₂-e.



Soil Carbon

There are various forms of soil carbon that are received, stored and emitted through the carbon cycle. Soil carbon stores are far greater than the atmosphere and plants combined. Soil carbon may be very stable and stay in the soil for thousands of years or it may be broken down in just a few hours and can be found in both organic and inorganic forms. It is the principal ingredient in organic matter which is plant and animal residues at various stages of decomposition, cells and tissues of soil organisms, and substances synthesised by them. It is made up of organic compounds such as sugars, starches, proteins, carbohydrates, lignins, waxes, resins and organic acids. Sequestration of carbon in agricultural soils through appropriate management actions has been recognised as an important tool to mitigate climate change. Carbon is the main element present in soil organic matter, on average making up 58% by weight.

Welcome to Mike Hannon!

Business Administrator



By now many of you had had some dealings with Mike and enjoyed his warped sense of humour (another one who hails from Tassie, what can you expect!)

Formerly a General Manager with an Australian Disability Enterprise and the Business Manager of a large rural aged care and emergency centre facility, Mike has highly developed administration and business skills in not for profit organisations. He has also worked in marketing and sales and holds a Diploma of Administration and Diploma of Marketing. Mike has also been the Secretary/Treasurer of three not for profit organisations over the last 12 years. Welcome aboard!!!!