



Wollombi Valley Landcare Group News for June 2010



Landcare Goes Bats

Saturday 19th June 2010 at 2:00 pm

The next Landcare meeting will be held at the Wollombi Tennis Club Rooms in Wollombi in Negro Street.

This month we are lucky to be able to have Jessi Grace and Kathy Davis talk to us about bats. Jessi and Kathy are members of Wildlife ARC (Animal Rescue and Care). "The ARC" covers all of the Wyong and Gosford Shire council area and rescues and relocates native animals - about 5,000 per annum - birds, reptiles, possums, macropods, flying foxes, microbats and frogs. Kathy has a background in science and education and is very interested in the interactions between humans and other animals. Last summer Kathy coordinated the rescue and care of a colony of displaced baby microbats - a first for Australia.



Common Bent-wing Bat
Image courtesy of Australian Museum

Jessi's other interests include growing native plants, bush regeneration and a commitment to Landcare (my kind of person!). They will be assisted by their comrades, a flying fox and a couple of microbats - live!

Bats are remarkable creatures, playing vital roles in the environment, agriculture and economy. They are amazingly long-lived for creatures their size, and make up 20% of all living mammals. Hear all about them from Jessi and Kathy, and bring along your questions and problems for help and advice from the experts.

Some people love them while others are less than enthusiastic. Either way, we ought to learn more about these creatures. Some of the topics to be covered at the meeting are listed over the page.

For more information contact Shelagh Brigg 4998 0092 or Jane Mowatt 4998 8158

Looking forward to seeing you there.

Everyone is welcome.

The views expressed in this newsletter are not necessarily those of Wollombi Valley Landcare Group Inc, or any other Landcare agency or government department, but are presented to promote discussion about and the practice of sustainable land use and environmental responsibility.

Some of the topics that Jessi and Kathy will be covering at our next meeting include the following:

- Bat biology and physiology
- Where do bats fit in the ecosystem
- Flying fox food tree species
- How to find out if you have bats on your property
- How can I encourage bats to my property
- What is the best book on bats for Hunter Valley/NSW/Australia
- What species of bats are local to this area
- How to create a bat habitat - the different needs of flying foxes and microbats
- Do they hibernate, and if so, how can you help them by creating bat hibernacula
- What can you do if they invade your house and you want to get rid of them
- What problems do bats face in our area of NSW/Australia/worldwide
- What diseases do bats carry which can be passed on to people and domestic animals



Living with micro bats

Often bats are portrayed in a bad light, through movies and the media. However, this depiction is misguided. Micro bats are very small animals; the largest species only grow to a length of approximately 11cm. They will keep to themselves in their roosts, some will stay still if approached, while others will crawl away from you or try to fly away. They will not try to fly into your hair! Any disturbance of their roosts should be avoided. These bats eat insects, (one eats small birds and mammals) but they will not suck your blood. Australia does not have any species of vampire bats.

Catching diseases from bats is extremely unlikely. Australian Bat Lyssavirus (ABL) can only be caught from untreated bites or scratches from infected bats. One person has died from lyssavirus from an insectivorous microbat (there has also been a lyssavirus death from a fruit bat). At least three species of insectivorous microbat can carry ABL and all four common species of -fruit bats can carry it. **Members of the public should not handle bats.**

Queensland Government - Environment and Resource Management

Future plans...

Unfortunately we are not yet in a position to advise final details for our next meeting. One possibility is a presentation by David Edwards from the University of NSW on the geology and landforms of the Wollombi region.

We are also planning a trip to Mt Yengo and through the Yengo National Park with Jeff Betteridge of NPWS as our guide. Details of a date is still being finalised but the response so far has been strong. One caveat is that we need people to be prepared to 'car pool' in "real" 4WDs. We are told Subaru Outbacks, Foresters, etc are unsuitable.

Botanical Walks

The Botanical Walk planned for the April Meeting was cancelled due to lack of numbers. People had expressed interest but were unable to make that particular day. The Botanical Walk has been re-scheduled for September 25th. If interested please call Lesley Williams on 4998 8205. Numbers are limited so please get in early!

The walk conducted by local botanist Dr Jane Mowatt goes through various microclimates typical of our area. Beginning on a damp south-facing slope where usually a number of varieties of orchids are in flower in September. The walk skirts a good display of grass trees and onto the ridge with excellent views over Murray's Run. Descending from the ridge the walk continues through typical Dry Sclerophyll Woodland. A good variety of trees local to our area are identified and discussed. After the walk we enjoy lunch together and plants collected are identified during an informal plant ID session. More details in the August Newsletter.



Lesley Williams

Plant propagation workshop

These workshops have proved popular in the past so we are running another one on Saturday 9th October from 10 AM to 1 PM at Wollombi House, 11 Canning Street, Wollombi.

Bring a small sharp blade to take and prepare plant cuttings. Other materials required, including seed, will be provided.

Numbers at the workshop are limited so please make a bookings by calling Evelyn Bloom on 4998 3316.

22 June - Bush Regeneration Workshop with CVA (Muswellbrook)

Conservation Volunteers Australia (CVA) invites you to attend a free practical bush regeneration workshop with professional CVA bush regenerators. The session will cover weed recognition and removal, native plant ID, tree planting, and site maintenance.

Meet at 9.30 for 10.00 am starts at Muswellbrook Swimming Pool (Wilkinson Avenue). The workshop will finish at 1.00 pm and will be followed by a free BBQ lunch and discussion. Please wear long sleeves, long pants, broad-brimmed hat, sturdy boots and bring a 2L water bottle.

To register call CVA on 4926 2103 or email newcastle@cva.org.au.

KILLER BAT DISEASE IN THE US - White Nose Disease - *Geomyces destructans*

(Synopsis of an article in New Scientist, 27th March 2010, p42-45)

Several endangered species have been brought to the brink of extinction by a fungal disease, which spreads in bat hibernacula (mines, cave systems) in the Eastern states of the US. Millions of bats have died, including whole populations living in cave systems, and there is a rush to declare more species endangered so that they can be protected and helped to survive the disease, such as by setting up captive breeding programs for them, for instance. Once the disease hits a cave system, between 80 and 100% of the bats living there die.

The fungus likes it cold, doing well at temperatures between 4 and 15 C, hitting the bats when they are most vulnerable, during hibernation. Bats usually wake up every three or four weeks to urinate, drink and mate. Those with the disease wake up every few days, which disturbs their hibernation, depletes their fat reserves and leaves them in a state of serious starvation. The floors of the caves are mass graves, littered with fungus-ridden bodies.

The fungus also infects bats in Europe, but does not seem to be a killer there. It could be that the bats there have been through the disease, and that numbers have increased since the bats that survived the disease have subsequently bred and multiplied. Indeed, the disease in the US could have come from Europe and either the bats in America have no immunity to it, or the fungus has mutated and become a much more serious threat to bats in America and on other continents, including a re-infection in Europe of a much more lethal strain.

There is currently a lot of work being done to try to combat the fungus. Antifungals are not practical on the scale necessary to deal with the problem. A race is on to sequence the genome of the fungus, to help find solutions to the problem, and to find out why it is so lethal in the US but not in Europe.

Internationally, those working with bats are seriously worried. The effect of the disease can be compared with the threat to amphibians around the world by the chytrid fungus. Today *between a third and a half of all species of amphibian* worldwide are threatened by extinction. This has happened in a very short time period - 10 years only.

Let's hope that the bat populations worldwide are not going to be threatened - the impact of the disease goes far beyond the fate of the bats themselves. Bats play an important ecological role in the environment, eating pests, pollinating night-flowering plants and helping in the dispersal of rainforest plants. Some species can consume as much 100% of their body weight in insects in a single night, and bats in Texas, for instance, save farmers nearly \$1 million a year in pesticides in the cotton fields. The threat to populations around the world from a reduction in the numbers of bats could be catastrophic - the spread of malaria, dengue fever and other mosquito-carried diseases; explosion in the numbers of crop pests - one just has to think of the disastrous effects of the Chinese bid to rid their country of sparrows during the Mao years as a horrid example of what we could expect.

Research to help farmers face the future

The Gloucester Project (TGP) is an initiative of a group of residents in the Gloucester area, who are working to support local farmers in the face of an uncertain future.

TGP is embarking on a research project that aims to identify adaptive measures that local farming businesses can employ to achieve a balance between sustainable production to improve food security, and sustainable land management to help farmers adapt to climate change.



The research project will involve a detailed assessment of five local farm businesses and a review of relevant research papers and industry reports. A comprehensive report will be prepared, with copies printed and distributed to local farming businesses. A public seminar will be held to discuss the report and hear from qualified agricultural experts.

Examples of the types of measures that could be featured through the project are: improving water use efficiency; changing to crop or grazing practices that are more tolerant of heat and drought; changing planting times; providing more shade and cooling for livestock; providing migration corridors for vulnerable animals; and reviewing flood and fire management arrangements.

The research project is being made possible through a \$6,000 grant from the CMA's Community Network Support Program.

TGP member Pierre Louys says the current research project is vital to TGP's vision for Gloucester to become a kind of 'climate change research and development area' offering examples of successful adaptation for communities across the region. The TGP's Tucker Garden Patch provides a public face for the project and the perfect place to display examples of adaptation. For more information on TGP go to: www.thegloucesterproject.org.au.

Report from HCR Catchment News – June issue

Back copies???

Has there been an occasion when you wanted to refer to something in a past issue of our Landcare newsletter but can no longer find the copy, or it has gone out in the rubbish! Now you are able to access past copies of the Wollombi Valley Landcare newsletter on the Wollombi Valley Online website at and scrolling down through the listing for the newsletter you want - they are listed in chronological order.

While you are on the Wollombi Valley Online website why not have a look at the vast amount of information contained on their website, e.g. regional news and events, weather, business directory, services, details of local flora & fauna, what the Cessnock Council is doing, etc



Wollombi Valley Landcare Group Contacts

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Why not join the Landcare Committee?

At our Annual General Meeting on April 17th, the current committee of long-term committed members agreed to continue in their current roles, but we are eager to add new faces to the committee. It is not too late, so why not join the committee as a 'junior' member to see just what we do? It is one of the best ways to learn how Landcare works and participate in setting the future direction of our organisation.

Minutes of the Annual General Meeting of the Wollombi Valley Landcare Group held at the Dairy, Murray's Run, April 17th, 2010 at 2.00 pm.

Present: Chris Jackson, Louise Hicks, Jane Mowatt, Graham Taylor and Graham & Lesley Williams.

Apologies: Shelagh Brigg and Catherine Craig

The minutes were taken as read as they had been published in the Landcare Newsletter after last year's AGM. As there was no business arising the minutes were accepted.

The President's Report and the Treasurer's Report were accepted. These reports had been circulated previously in the Landcare Newsletter April 2010.

Membership: Graham Taylor to draft a letter to those whose membership has recently expired. Membership is currently \$40 for 3years or \$15 for 1 year.

Ideas for meetings were discussed.

As there was no further business, Jane declared all positions vacant and asked Graham Williams to take the chair for the election of officers for the coming year.

The following positions were filled:

Chair -	Jane Mowatt nominated by Lesley Williams seconded by Chris Jackson.
Vice Chair -	Catherine Craig nominated by Jane Mowatt, seconded Lesley Williams.
Secretary -	Shelagh Brigg nominated by Jane Mowatt, seconded Louise Hicks.
Treasurer -	Louise Hicks nominated by Jane Mowatt, seconded Lesley Williams.
Information	
Co-ordinator -	Graham Taylor nominated by Jane Mowatt, seconded by Chris Jackson.
Public Officer -	This role to be filled by Shelagh Brigg as Secretary
Committee -	Lesley Williams nominated by Jane Mowatt and seconded by Graham Taylor. Chris Jackson nominated by Jane Mowatt and seconded by Graham Taylor.

All positions were elected unopposed.

Landcare membership

We rely on your involvement and support. Running our Landcare Group relies on members and their subscription to help pay the bills and keep the organisation going. Our financial year commences in April, so if you have not yet paid your dues for 2010-2011 we encourage you to do so now so that you continue to receive the newsletter and regular emails advising you of other activities and news.

No Tillegra Dam!

It's hard to imagine today that there was once a proposal to dam and flood the Wollombi Valley.

Now there is another threat in the Hunter with the State Government's proposal to flood the Williams River above Dungog. It was on 13 November 2006 that the NSW Premier, Morris Iemma, announced the construction of a major new 450 billion-litre dam at Tillegra on the Upper Williams River. Worse was the fact that the announcement was made without the prior knowledge of the local community and Dungog Council. Both past Labor and Liberal governments have scrapped this project several times over the last 50 years. And in 2003, Hunter Water in their *Integrated Water Resource Plan* rejected Tillegra, putting it the second least attractive water supply, exceeded only by an expensive desalination plant.

The local communities have been campaigning and continue to do so in an effort to stop this proposal. Their website www.notillegradam.com contains extensive detail on their efforts to stop the dam.

Until only a few days ago there was some optimism that the dam would be abandoned (again). So imagine the dismay when in the State Budget announced in Parliament "*\$18.8 million was provided to commence construction of Tillegra Dam to provide long-term water security to the Lower Hunter region*"



Williams Valley. Image courtesy of No Tillegra Dam Group

Then on Thursday 10th the ABC carried the report on the next page.

Graham Taylor

Hunter dam 'to starve wetlands'

By ABC Environment Reporter [Sarah Clarke](#)
10 June 2010

Opposition to the Tillegra dam in the Hunter Valley in New South Wales is growing, with a group of scientists arguing it will starve the internationally recognised Kooragang Island wetlands if it goes ahead.

Their study has found that the dam could cut flows by up to 40 per cent in three major rivers which feed thousands of migratory shorebirds.

Given the wetland's importance the Federal Government does have the final say, just like with the Traveston dam in Queensland, and it can block the Tillegra project.

Three-and-a-half years ago the NSW Government announced plans to build a massive dam in the Upper Williams Valley north-west of Newcastle.

If it goes ahead it will be the biggest dam built in Australia in 20 years.

The Government said the dam was needed to secure water for the growing population in Hunter Valley.

The dam will be 21 kilometres long and swallow 4,500 hectares of agricultural land.

Local residents like fifth generation dairy farmer Carol Pasenow are opposed.

"It will have a great impact [not] only on this valley but the valleys further down the river system. It'll have an impact in Newcastle, on the estuaries," she said.

"The community as a whole is having their eyes opened to the damage of the whole situation."

A study on the dam's environmental impacts confirms the community's concerns.

A 12-month independent assessment by the University of New South Wales (UNSW) found freshwater monthly flows from three major rivers could be reduced by almost half, threatening the system downstream.

"What we found was that if you look at monthly flows and even daily flows coming down the river, they're going to be affected by something between 10 and 40 per cent," report author Professor Richard Kingsford, said.

Different modelling

That figure is different to a report commissioned by the Hunter Water Corporation, which wants the dam built.

It says the flows will be reduced by less than 1 per cent.

The University of New South Wales used different modelling which it says gives a more accurate account of how much flow will be lost.

"Hunter Water Corp based all of their conclusions on annual averages, whereas we look at the finer scale of monthly and daily variation. So you see quite a big difference," UNSW report co-author Chelsea Hankin said.

The rivers feed a system of large wetlands in the Hunter River estuary. It is an internationally-recognised site which is home to 38 species of migratory shore birds.

Professor Kingsford says reduced flows will increase salinity, and that will threaten the site.

"We know that these species rely on the productivity of these estuaries and we've seen possibly an 80 per cent decline in migratory shorebirds in this estuary over the last 30 years or so," he said.

The NSW Government says it is going ahead with the controversial plan to build Tillegra Dam, but given the international recognition of the site the final decision now lies with the Federal Government.