

Catchment Connection

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Autumn 2008/09- Regional Update

What a busy Autumn it has been in North Central Waterwatch!

On personal notes, Mel Barrot is now Mel Watts (see pages 4 & 7 for details), and I went on a trip to the centre of this great country of ours (pages 2 & 9 if you're interested).

Nicole Bullen is jet-setting off to Cambodia and Laos and will be unavailable from 14 August to 14 September (there is no room in her suitcase - I have already asked). As usual, ask me any questions you would usually ask Nicole and I will help you out (I will try!).

I am delighted to announce that both Britt Gregory and Leah Cripps are expecting babies!!! Congratulations Britt and Leah, who coincidentally are due within days of each other in November.

Mel's Acid Sulfate Soil project has been completed (page 4 for that one). Saltwatch Week has been and gone (page 3) and so has World Environment Day (page 5).



Sturt Dessert Pea's on a cloudy day in Alice Springs

QAQC week is coming up soon with events being run in both Bendigo and St Arnaud. Please don't forget to let your local facilitator know which event you are attending. Participating in QAQC week is very important as it is a chance to prove the accuracy of the data we collect during the year.

Index of Stream Condition monitors please make sure you read the Warning on Page 7.

Keep up the awesome work everyone, you're great!

by BJ Huider

Creature Feature

The Thorny Devil

Moloch horridus

As Bianca has recently returned from a holiday to Central Australia, in this newsletter we have decided to feature her favourite new reptile, the Thorny Devil lizard, sometimes also known as the Moloch (*Moloch horridus*).



A Thorny Devil desperately trying to hide from Bianca's camera

This fearsome looking creature is actually a harmless little guy with spiny orange, yellow and black skin camouflaging them in desert sands. The colours can change from pale colours when warm to darker colours when cold.

As well as being a defence against predators, the spikes all over their bodies actually help them to drink; they rub up against dew droplets on Spinifex in the mornings, the moisture runs between their spikes and along grooves running directly into their mouths - now that's a clever adaptation! During rain events, capillary action allows the lizard to suck in water from all over its body.

Thorny Devils use the spikes all over their body as a water distribution system.

Thorny Devils have a pretend second 'head' on the back of the neck, which it presents to a potential predator by dipping its real head. They lift their tail and walk along with a slow, jerky motion like a wind-up toy, probably also a deceptive defence against predators.

These cute reptiles grow up to 20cm in length, the females being slightly larger than males, and can live for up to 20 years.



Thorny Devils are quite small as can be seen in these photo relative to a human hand

Thorny Devils live on a diet of nothing but small ants. They feed in the cooler mornings and late afternoon. When they locate a trail of ants, they lick them up with their short, sticky tongue.



After numerous attempts and hours of trying, Bianca finally gets a close up of this little devil

Scientists calculate that Thorny Devils might eat a thousand or more ants in a single meal.

Thorny Devils eat about 1,000 ants for breakfast!

They are diurnal (meaning active during the day), and inhabit the arid scrub and sandy desert country covering much of Central & Western Australia.

A clutch of three to ten eggs is laid in September-December (spring-summer) in a nesting burrow about 30 cm underground, and hatches after an incubation of three to four months. The young then need to dig their way out to freedom.

Their conservation status in the wild is 'common'. Aerial predators such as Brown Falcons prey on Thorny Devils, as do larger reptiles such as Goannas.

What a fascinating little creature, I hope to see one sometime too!

By
Britt Gregory



Another successful Saltwatch Week

A gigantic North Central Waterwatch thanks is extended to all our schools and monitors who participated in Saltwatch week which officially ran from 10 -16 May. We had an overwhelming response to this years monitoring, with nearly 30 schools and 35 community monitors from our region participating, resulting in over 250 salinity readings being collected.

Over 250 salinity readings in North Central Victoria.

Saltwatch Week ran a little early this year for the schools and monitors facilitated by Melanie Watts in the Avoca/Avon-Richardson catchments. Despite the lack of rain Mel still managed to find plenty of water to test. In fact, Tarnagulla PS had so many samples that Mel had two EC meters going at the same time and three scribes to document the salinity readings...phew that was hard work!

As with previous years, samples were sourced from a variety of waterbodies, including bores, dams, creeks and rivers. The majority of samples this year were from non-flowing surface waters such as farm dams. There were also readings taken from river and creek systems that are no longer flowing and have become a series of disconnected pools due to the prolonged dry weather.

More than half of the samples were within the low EC range (less than 800EC), which is fantastic news.



Tarnagulla PS students.

The highest readings were from the west of our region around the towns of Donald, St Arnaud and Charlton, with the highest being from the Richardson River near Donald, which at 196,000 ECs is almost four times as salty as sea water. This reading will come as a shock to those of you who sample at Gunbower Creek where the average EC reading is 60ECs!

The Richardson River was found to be four times as salty as seawater.

The reason for the extreme conditions in the Richardson River is the well below average rainfall. It is likely that in these times of drought, the main source of water in the river is groundwater.

All schools involved in Saltwatch week played a variety of fun, and educational, games to learn about salinity and how we can help to fight the issue.

They also watched the very entertaining Fresh and Salty DVD, taste tested a variety of mystery solutions, and generally had a blast!

Community monitors were also involved in this very important week by doing their regular Waterwatch testing during the specified period.

All data received has been entered into the Saltwatch website and is available for viewing by the public. Look for the Saltwatch link at www.vic.waterwatch.org.au

Saltwatch week has run every year since 1987, resulting in 22 years of community sourced data – what a fantastic achievement! The event provides a 'snapshot' of what is happening with salinity levels across the state, as well as raising awareness of the salinisation of our freshwater systems, which is a serious environmental issue.

By Mel Watts & Nicole Bullen



Acid Sulfate Soils Risk Assessment Project—It's a wrap!

In previous editions of our newsletter we have written about the Acid Sulfate Soils (ASS) Risk Assessment Project and provided updates on progress. We can now tell you that we have successfully completed all the rapid assessments.

A massive 84 rapid assessments completed.

To signify the completion of the rapid assessment phase, we recently held an event in Bendigo to discuss the extent of the issue in North Central Victoria.

Two guest presenters, Dean Ansell and Darren Baldwin, travelled from Canberra to present the findings from the rapid assessments and discuss how the waterbodies will be prioritised for further investigation.

Dean and Darren are both well qualified to talk about ASS and all participants took away a lot of information to consider when dealing with the issue.



Dean presenting the preliminary findings

Events such as these are vital to ensure that people are informed about the outcomes of the investigations and to discuss the next stages of the project. The night was a great success thanks to Dean and Darren, and we are now all the wiser about what lurks beneath!

By Mel Watts

WaterWatts!

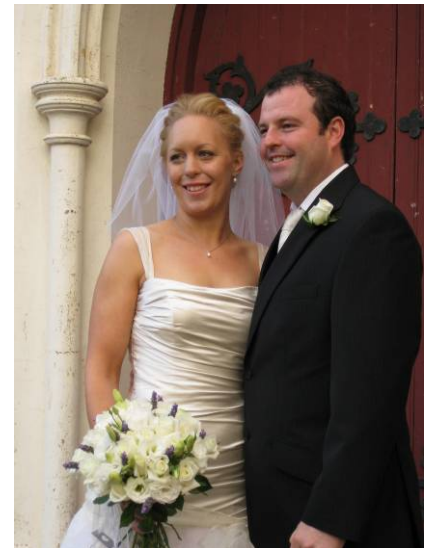
I would just like to take this opportunity to inform everyone of a name change for the Waterwatch program.

Waterwatch will now be known as WaterWatts.

With the marriage of Avoca/Avon-Richardson Facilitator Mel Barrot to long time Waterwatch volunteer Aaron Watts, the number of Watts involved in the program has reached a critical point, hence causing the name change.

Involved in the North Central WaterWatts program is:

Aaron Watts
Brian Watts
Craig Watts
Denis Watts
Fred Watts
Glenda Watts
Glenden Watts
Jan Watts
Marion Watts
Mel Watts
Michelle Watts



If you have any queries for the name change, send an email to wattstakeovertheworld@mail.com

Seriously though, our heartfelt congratulations to both Aaron and Mel, we wish them much happiness for the future.

By Bj Watts
(if you can't beat them!)



Darren answering a difficult question posed to him by a very intelligent (of course) Waterwatcher

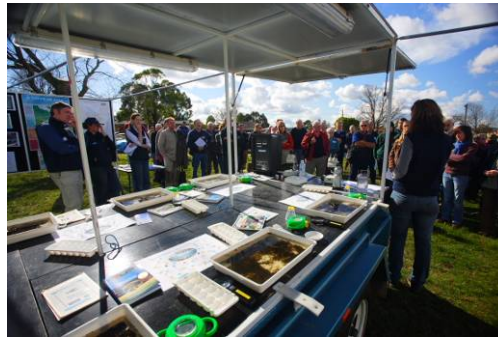
World Environment Day

Waterwatch recently presented at an informative event run by the North Central Catchment Management Authority in conjunction with the Victorian Gorse Taskforce. The World Environment Day event was held on Friday 5 June in Tylden and focused on enhancing river health in the upper Loddon and Campaspe catchments.

Despite a late change of venue due to wet weather (yay!), over 100 community members took up the opportunity to learn about the importance of protecting the health of their local waterways, incentives available and management techniques for the control of willows, gorse and blackberries.

Most also took a look around the fabulous Waterwatch trailer, peering into trays and down microscopes to become acquainted with the diverse array of little critters from the nearby Campaspe River in Kyneton. Waterwatch Facilitator, Britt Gregory, gave a presentation on our programs and also talked about the importance of macroinvertebrates in our waterways and how they can act as indicators of river health.

After a warming BBQ lunch, the day finished with a local weed control contractor explaining how a weed groomer works.



Britt Gregory talking to a captivated audience about Waterwatch and the use of macroinvertebrates as indicators of river health.

Many keen Waterwatchers were in attendance which was great to see. Apart from the cold, a great day was had by all.

By Britt Gregory

Castlemaine Fish Protection Day

Margaret, Bill, Linda and Lachlan Moody are keen community Waterwatch monitors measuring water quality along the Coliban River at Taradale and near Redesdale. They invited North Central Waterwatch to bring along a water quality display to the annual Castlemaine District Fish Protection Society and Anglers (CDFPSA) Club Open Day in May.

Lachlan Moody demonstrated how to tie fish lures to resemble the aquatic bugs that trout in particular will hungrily snap up. These lures and their making looked very impressive and complicated!

The CDFPSA Club formed in 1930 and has an enviable record in trout propagation. This is not an easy process and involves wading streams, stripping fish at night in wintry conditions, tedious necessity of egg picking, caring for fry and later their release. During club history, hatcheries have been in three locations although are presently closed.

Margaret was pleased to report that the day attracted some new members, and participants enjoyed looking at the macroinvertebrates caught from nearby Expedition Pass at Golden Point. Many shared fishing stories and recognised some of the bug life on display. A large diversity of species were caught which indicates very good water quality and this was confirmed by water quality testing.

Members have enjoyed good fishing days at Expedition Pass Reservoir and the water quality and macroinvertebrate results bode well for good fishing conditions well into the future.

By Leah Cripps

Master fly-tier Lachlan Moody.



Rain & Dam Update

Well it's half way through the year and the rain figures are in. The following statistics are taken from the Bureau of Metrology website, www.bom.gov.au. Actual rainfall totals for this year are from 9am 1 January 2009 to 9am 1 July 2009.

Bendigo

Long-term Annual Mean Rainfall is 386ml

Jan-Jun Long Term Mean~206.3 ml
Jan-Jun 2009 Actual ~ 124.0ml

That's a difference of 82.3 ml to the mean rainfall for this time of year.

Echuca

Long-term Annual Mean Rainfall is 426ml

Jan-Jun Long Term Mean~199.8 ml
Jan-Jun 2009 Actual ~ 98.4ml

That's a difference of 101.4 ml to the mean rainfall for this time of year.

Clunes

Long-term Annual Mean Rainfall is 400ml

Jan-Jun Long Term Mean~260.6 ml
Jan-Jun 2009 Actual ~ 140.4ml

That's a difference of 120.2 ml to the mean rainfall for this time of year.

Kerang

Long-term Annual Mean Rainfall is 306ml

Jan-Jun Long Term Mean~170.1 ml
Jan-Jun 2009 Actual ~ 89.6ml

That's a difference of 80.5 ml to the mean rainfall for this time of year.

Saint Arnaud

Long-term Annual Mean Rainfall is 385ml

Jan-Jun Long Term Mean~229.1 ml
Jan-Jun 2009 Actual ~ 131.3ml

That's a difference of 97.8 ml to the mean rainfall for this time of year.

Unfortunately, even though there has been some wet weather of late, it seems the towns in our region have some catching up to do if we are to receive close to the Mean Annual Rainfall. Finger, toes and legs crossed!

The storage levels in North Central Victoria continue to tell a pretty sad story. Lake Eppalock, on the Campaspe River, is currently at 6% with 18,205 megalitres of water currently held in storage.

The Loddon storages also are quite low, with Tullaroop Reservoir at 4% with 2,885 megalitres. Cairn Curran is currently at 1.8% with only 2,664 megalitres of water in the Reservoir. Finally, poor little Laanecoorie Reservoir is at just under 4.5% with a measly 356

megalitres in storage.

Some may say I was unfair in blaming the continuing drought on the lack of entries in the Waterwatch Rain Dance competition, but luckily Baringhup Primary School have come to the rescue (with the help of Cathy McCallum).



Baringhup Primary Students trying their best for rain

I am again not jumping to any rash conclusions but since their rain dance there has been some welcome rain in the region. I will just let the gauges speak for themselves shall I...nobody likes a know-it-all!

by BJ Huider



Baringhup Primary Students strike a pose



Marriage Advice!

Last newsletter, I implored you all to hand over valuable marriage advice to Mel before her marriage to Aaron Watts on May 16. I wasn't disappointed with the number of you passing on beneficial information. The winner of the "best" advice is the following poem...

*There was a young blond lass full of charm
Who used to work as a lassy on a fish farm
That's until she was given a chance to go up a notch
Now she is currently working in the bush with Waterwatch*

*Everything was great and really quite fine
Until she met a country bloke she thought was divine
He thought she was lovely but sometimes enraged
But this did not prevent them both becoming engaged*

*Congratulations Mel on your engagement
Hopefully there will be no more enragement
I'm told you are really only a friendly young lady
That is not leading Aaron into something quite shady*

*At last the wedding day has now been set
Let's hope on the day Mel doesn't fret
As on this occasion it will be a day not to forget
Oh what a day to celebrate the day they both met*

*We have been told in good stead they have planned a trip
Around the world on a honeymoon via a plane or a ship
I wonder if they will really have the time
For Aaron to also make Mel feel divine*

*Congratulations Mel, please no wedding day blues
And don't forget to wear the right coloured shoes
I know you will come home all smiles and quite happy
Leading that person that is now your chappy.*

*Oh Mel I've had to put up with you for several years
On this occasion I can only offer my cheers
I really have no more to say
Other than please both enjoy your wedding day*

Congratulations to Rob Loats on a great effort with this poem! Your prize is another several years with Mel as your facilitator.....I hope you like it ☺!

By BJ Huider

Warning Warning!!!

The Index of Stream Condition monitoring project requires water samples to determine Total Phosphorus levels. The sample bottles used contain 2ml of sulphuric acid to preserve the water for analysis.

Britt checking out the hole made by acid in Bj's pants as she was not careful enough whilst sampling



When the bottles are not stored upright, acid can accumulate around the lid and can be transferred to your fingers. Unfortunately, we have had an incident with a monitor touching their face with acid on their fingers. This did not cause any lasting injury but did give us a fright. So please be careful, ISC monitors, and make sure you don't hurt yourself or your clothes.

By BJ Huider

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Gunbower Creek Community Information Session and Fish Monitoring Results

The North Central Catchment Management Authority (CMA), in conjunction with our partners, Department of Primary Industries and Goulburn-Murray Water are delighted to invite you to a community event focussing on Gunbower Creek.

This is an opportunity for the local community, anglers, project partners and the North Central CMA to discuss works that will be undertaken to restore fish passage in Gunbower Creek, as well as participate in discussions to capture information about the fish people have been catching in Gunbower Creek in the past and more recently.

Come along to hear the project partners present on topics such as Thompson's Weir Fishway, Aquatic Weeds, Riparian Restoration and Local Fish Surveys.

Date: Wednesday 22 July 2009

Time: 6:30pm–9:00pm (dinner and soft drinks provided, other drinks at bar prices)

Where: Bower Tavern, King George St, Cohuna

RSVP: Registration for this event is essential for catering purposes.
To register please phone North Central CMA reception,
Phone: (03) 5448 7124 by Friday 17th July 2009

Do you know your local fish?

The North Central CMA is interested in sharing the data from our recent fish surveys in Gunbower Creek, as well as ground truth the data against local fishing knowledge.

Are you an angler interested in the fish in your local waterways? Come along and share your stories about the fish you have caught (or the ones that got away!) in Gunbower Creek.

Plus, collect an anglers diary to assist us in gathering important fish information into the future.



Banana Box Frogs project

They may sound cute, but in Victoria the three frog species that make up the 'Banana Box Frogs' can be lethal to our indigenous frog species.

The Green Tree Frog, Dainty Tree Frog and Eastern Dwarf Tree Frog naturally inhabit Queensland; however, the transport of fresh produce such as bananas has resulted in the inadvertent transfer of them to other states.

The reason they are so problematic is that they can carry the lethal *Chytrid* fungus which slowly shuts down the frog's vital organs when it is passed on. The fungus can also live within the soil and therefore has the potential to be accidentally transferred by humans without even knowing they are doing so.

Banana Box frogs are native to Queensland.

The Banana Box Frog project aims to capture any escapees by raising public awareness of the issue and preventing the little frogs from getting outside where they can come into contact with our local frogs.

Initially this project is being trialled in the Avoca and Avon-Richardson catchments by placing posters and fact sheets up in the fruit and vegetable section of supermarkets.



The three introduced species of tree frogs, known collectively as the 'Banana Box Frogs', are: the Green Tree Frog (*Litoria caerulea*), the Eastern Dwarf Tree Frog (*Litoria fallax*), and the Dainty Tree Frog (*Litoria gracilenta*). These frogs are naturally found within Queensland and New South Wales, however individuals have been transferred to Victoria and other states via transport of fresh produce. These individuals pose a threat to native frog populations through competition and the transfer of the lethal *Chytrid* fungus. Tree frogs in general can be identified by the presence of circular discs at the end of their toes which provide suction and allow them to climb. The toes of most tree frogs are also about 1/3 webbed.

Collection and storage of a frog is important Before handling a frog ensure your hands are wet and clean. To store a frog for a short period use an ice-cream, or margarine, container with air holes in the lid and a small amount of water in the bottom. Most tree frogs will feed on crickets or moths, so provide them with food if possible. Contact your local Waterwatch facilitator for further information and to determine the closest drop-off point. Please do not keep these frogs in your garden ponds—they need to be quarantined to ensure they are disease free and can then be adopted as a pet!



GREEN TREE FROG
Litoria caerulea

This species is the largest of the tree frogs and can attain a length of up to 10cm. Colouration is either dark green or bright green all over, usually with white spots along the sides or back. Their underside is white or pale yellow, and they have yellow and horizontal pupils. The green tree frog is usually found on rocks or trees and on the ground near water. Their call is made up of a continuously repeated 'craak'.



EASTERN DWARF TREE FROG
Litoria fallax

A slender frog that can grow up to 3.5cm. Colouration can vary from all green to all brown. However, they typically have a green back with brown stripes running down either side of their body. The backs of their legs and their belly are bright orange or yellow. During its bright orange voice call, the frog produces a two-part call: a long 'waaaaa' followed by a short 'tik tik, tik tik'.



DAINTY TREE FROG
Litoria gracilenta

Grows up to 4.5cm. They are leaf-green, usually with a yellowish-green stripe down the eye and fingers, nose and upper arms are a bright lemon yellow. Dainty tree frogs prefer to stay under cover when the sun is at its hottest. They are common garden dwellers and seek shelter in the daytime. Their call is a long drawn out 'waaaaa'.



NORTH CENTRAL
Catchment Management Authority

WATERWATCH
North Central
Committee leading the campaign

We hope to educate the public and supermarket staff who are most likely to come into contact with the frogs. If the project is deemed to be successful and worthwhile it will be rolled out in the Loddon and Campaspe catchments.



Have you seen or found a Banana Box Frog?

If so, report it to the store manager and help reduce the risk to our native frog species.

North Central Waterwatch aim to locate any escapees but we need your help!



These three tree frog species have been known to hitch a ride into Victoria from Queensland and New South Wales hiding amongst fresh produce such as fruit, vegetables and plants.



They pose a serious threat to our native frog species by spreading the lethal *Chytrid* fungus.

For more information about Waterwatch or the frog monitoring program go to www.ncma.vic.gov.au and follow the **getting involved** link.



NORTH CENTRAL
Catchment Management Authority

WATERWATCH
North Central
Committee leading the campaign

Images courtesy and copyright of Lydia Fucala

If a frog is found, the person is asked to alert the store manager who will arrange for the frog to be picked up by Melanie Watts.

The frog will be lovingly delivered to the Amphibian Research Centre (after many hugs from Mel) where it will be put into quarantine. Once it is deemed free from disease, the frog can then be purchased as a pet...strange, but true!

Banana Box frogs can become pets if quarantined.

If you would like to know more about this project, contact Melanie or your local facilitator.

By Mel Watts

What bug am I?

- I usually have a rounded body
- **I have eight legs**
- The larger of my species grow to 5mm
- **My most noticeable species can have a bright red body and legs, or combinations of black body and blue legs**
- I usually live in sheltered, shallow vegetated areas of standing and sluggish flowing waters. I even live in pools of temporary streams.
- **Along with spiders and ticks I belong to the class Arachnida**
- From the order Acarina,

I am a—

F _ _ _ _ _ M _ _ _ _ _



Photo of the Quarter— Lake Eyre

Lake Eyre from 500 feet

Luckily for me I have recently been on a 2 week trip to central Australia. It was an awesome experience which I recommend to everyone! The highlight of the trip was a scenic flight over Lake Eyre after a drive to the William Creek airport on the Oodnadatta track.

Lake Eyre was named after Edward John Eyre who was the first European to sight it in 1840. The massive Lake Eyre system covers an area of 9,690 square kilometres, or roughly the size of the Netherlands.

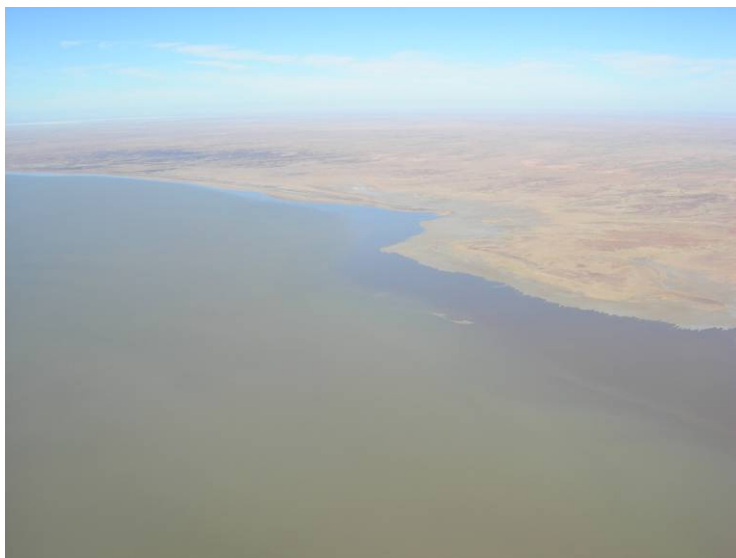
Nearly one-sixth of Australia's landmass drains into Lake Eyre, but it has filled to capacity only three times in the past 150 years. There are actually two lakes, North and South. Lake Eyre South fills only when the water in the North lake reaches over two metres in depth.

Seasonal rainfall attracts thousands of waterbirds, who - driven by instinct - flock in from as far away as North Queensland to breed and feed on the teeming fish. There are many theories, but no-one is quite sure how birds as far as 2,000 kilometres away instinctively know the lake is full.

The brilliant white salt crust is 460mm thick in some places, and estimated to weigh 400 million tonnes. With salt flats as far as the eye can see, it's not hard to imagine British speed ace Donald Campbell setting a land speed record of 403.1 miles per hour (648 kph) on the lake in 1964.

by Bj Huider

Lake Eyre North - when I took this the Lake was about 55% full.



Contact Us

Regional Coordinator

Bianca Huider

Ph: 5440 1829

bianca.huider@nccma.vic.gov.au

Loddon Campaspe (Dryland) Facilitator

Britt Gregory

Ph: 5440 1843

britt.gregory@nccma.vic.gov.au

Leah Cripps

Ph: 5440 1876

leah.cripps@nccma.vic.gov.au

Loddon Campaspe (Irrigation) Facilitator

Nicole Bullen

Ph: 5440 1877

Nicole.bullen@nccma.vic.gov.au

Avoca/Avon Richardson Facilitator

Melanie Barrot

Ph: 0427 887 254

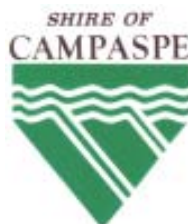
melanie.barrot@nccma.vic.gov.au

What Bug Am I?

I am a—Freshwater Mite



From:
Harvey & Growns 1998 pg 7



Rochester Campaspe
Water Services Committee

