

Catchment Connection

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Winter 2008- Regional Update

The cooler weather didn't slow us down...some highlights for winter were: the Swan Hill and Kerang Central Murray Environment Festivals for schools; launch of the Spring in the Bendigo Bush Festival; Green World Youth Day Forum; World Environment Day Festival; QA/QC week; and macroinvertebrate sampling in the flooded Gunbower Forest.

Jennelle got married in Canada in August and had a truly amazing day. She returned home a couple of weeks ago, but unfortunately for Waterwatch she has moved into the Regional Landcare Coordinator role. We wish her well and hope she enjoys the challenges of her new role! This means more recruitment...which is happening as I write!

Here is a photo of Jennelle and Kane on their wedding day...what a gorgeous couple.



We welcome Britt back to the Waterwatch team in October when she returns from maternity leave for 1 day a week, and 2 days a week from November. She will job-share the Loddon/Campaspe Waterwatch Facilitator position.

We also welcome our new Regional Waterwatch Coordinator, Bianca Huider, who will be starting with us on the 6th October. She comes to us with a great depth of knowledge in water quality and monitoring among other things.

If you are uncertain about any of these changes, or how they may affect you, please contact Melanie on 0427 887 254.



QA/QC week

Another successful QA/QC week down, and great participation across the region. Two group events were held, one in St Arnaud and the other in Huntly. One-on-one sessions were also held where required.



The North Central QA/QC report has just been provided to Waterwatch facilitators by Waterwatch Victoria. This information will soon be passed onto each Waterwatch monitor/group for discussion.

Some region-wide comments:

- **100%** pass rates were achieved for Sample A and B pH; Sample A and B turbidity; and Sample B EC...Hats off to you!
- Our Sample A EC results were a bit of a mixed bag (although many were very close!)—facilitators will contact you if your results were outside of the accepted range to discuss

meters, calibration, and sampling procedures.

- Phosphorus sample results showed consistency across the region which is great—however the data analysis method used for QA/QC this year was much more strict about the accuracy range, which resulted in a very low pass rate. I must stress that this is **NOT** a reflection on you, but on the accuracy of the equipment that is used.
- We had **42** data sheets returned which is a terrific effort!

We can't stress enough the importance of these types of events in helping to resolve meter issues and reinforcing correct testing procedures.



At each event we also had presentations on aquatic weeds and discussed the potential impacts they pose to our waterways. We handed out some materials which we hope

you find useful in assisting you to identify and potentially alert Weed Spotters to infestations before they become too serious. If you didn't receive a copy of these materials please let us know and we will get them to you.



A big **THANK YOU** to those who participated this year. We hope you enjoyed the events and will continue to participate into the future.

If you have any suggestions for next year, or feedback, please contact Melanie.

National Water Week

19-25th October 2008 is National Water Week! We're celebrating by hosting a number of events, most of which have a target audience. Keep your eyes and ears out for further details.

You can celebrate this special week too—go down to your local waterway and take in it's natural beauty...maybe, do a rubbish pick up while you're there.



Year of the Frog!

Did you know that 2008 is International Year of the Frog! Amphibians are disappearing at an alarming rate! Addressing this issue is one of the greatest conservation challenges of our time, which is being undertaken across the globe by Amphibian ARK (AARK).

Frogs are important in our environment, are sensitive to its change and need our help!

Habitat fragmentation, pollution, introduced species and climatic changes are major drivers for this crisis. We already have 2 threatened frog species in the North Central region—a good reason to get involved and help conserve what we still have.

Fundraising events are being held across the globe to raise money for this cause. If you would like to know more about this initiative, a good website is: <http://www.zoo.org.au/Events/YOTF>.



Perons Tree Frog—hanging out!

Central Murray

Environment Festivals for Schools

The 2008 Central Murray Environment Festivals for Schools are the 3rd series of this event! These festivals are held every two years and wouldn't be possible without the support of partner organisations and willing participants. This year we have already held two festivals, in Swan Hill and Kerang. To help celebrate National Water Week we will be holding the final festival for 2008 in Charlton on Friday 24th October.

The main objectives of these festivals are to: showcase the broad range of environmental programs run across the region; deliver key messages and initiatives about the environment; make learning about the environment fun and engaging; and strengthen partnerships.

Students participate in a range of 30 minute workshops as well as a special sustainability performance by Vox Bandicoot. They also participate in a sustainable art challenge and litter free lunch.

Fun is had by all!



International Green World Youth Forum

The International Green World Youth Forum brought visitors from around the globe to the North Central region. The day was stormy, wet and cold—but that didn't worry us! Waterwatch were involved in two events—one in Echuca and the other in Axedale.

The Axedale event included a day beside the Campaspe River to raise awareness of the Waterwatch Program and local river health issues. Participants undertook frog monitoring, water quality testing, habitat assessments, and then put on the waders to assess the macroinvertebrate community!



Acid Sulfate Soils Project

The State Waterwatch team have been approached by DSE for assistance in monitoring acid sulphate soils in Victorian Murray-Darling Basin wetlands, as part of a basin-wide project coordinated by the Murray-Darling Basin Commission.

Record low inflows and river levels in recent years have led to the drying of many permanent wetlands in the Murray-Darling Basin, resulting in the exposure of acid sulfate soils and the acidification of some wetlands. Once these areas are wetted again, the acid could be mobilised.

The extent of this threat posed by acid sulfate soils requires urgent assessment.

The MDBC Ministerial Council has agreed to an urgent project which aims to:

- assess the spatial extent of, and risk posed by, acid sulfate soils at priority wetlands in the Murray River system, Ramsar listed wetlands and other key environmental sites in the Murray-Darling Basin; and
- Identify and assess

management / mitigation options.

The North Central Waterwatch team have been asked to perform the rapid assessment for 'at risk wetlands' within our region. This is a great opportunity to show off the skill and professionalism within our network. I have undertaken the assessment methodology training and we are currently at the desktop assessment stage. Then we can go out and get our boots muddy!



When it's time to go out and do the assessments I may need some help, so if you would like to come out and see what its all about please contact Melanie. This is a great opportunity to gather new skills!

Animal of the Quarter



Marbled Gecko

Scientific name: *Christinus marmoratus*

Family: Gekkonidae

The Marbled Gecko is an amazing little creature with a thick tail and maximum length of 14 cm. I recently found one in the piece of wood I was chopping. This gecko is now found across much of Victoria and is thought to be the only one that has managed to extend its range. It is believed to be transferred via wood when people move it from one location to another...which makes sense considering my find!

People rarely see them because they are nocturnal. Even if you don't see them, they usually leave behind tiny black and white faeces where they walk...too much information!

You won't find their skin laying around like other reptiles—they eat it!

They also feed on insects including cockroaches, so they are pretty handy around the house. Like other geckos, they drop their tail in defence, although this can be lethal over winter as they rely on fat and water stores within their tail to survive the cooler months.

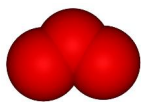


Who Am I?

- I am rarely larger than 3mm;
- I look vaguely like an insect because I have a head with a pair of antennae, a thorax with three pairs of legs and a segmented body;
- However, I have no wings or exoskeleton (external skeleton). Instead I have a soft body.
- I have a forked spring like appendage on the underside of my abdomen, which I use as a trigger to catapult myself up to 30 centimetres;
- I can jump so quickly that you might think I have disappeared;
- I also have another appendage closer to my head which I use to maintain my water balance;
- There is only 1 exclusively aquatic freshwater species of my kind, but another 1600 or more other Australian species;
- I am often washed into waterways when it rains.

I am a—S _____

International Day for the Protection of the Ozone Layer



Ozone molecule

Did you know that the 16th September was International Day for the Protection of the Ozone Layer? I had no idea, lets look into it further...

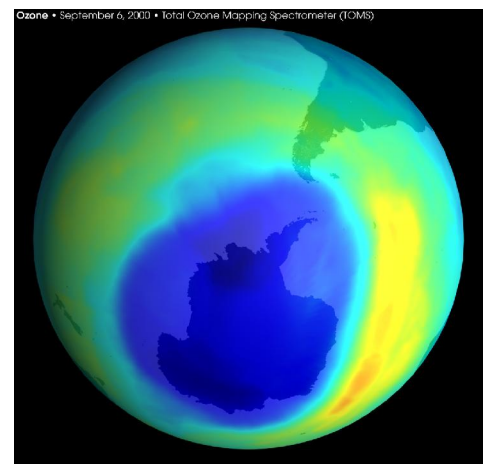
On this date in 1987, in Montreal, Canada, an international treaty was signed to protect the earth's ozone layer. It is known as the **Montreal Protocol**. To date, 191 countries (including Australia) have signed, pledging to phase out the production and use of ozone depleting chemicals such as hydrochloroflourocarbons (CFCs) and halon. These substances are typically used in refrigerators, air conditioners, foam, fire protection and fumigation.

There can be no life without the ozone layer. Without it, UV radiation will penetrate to the earth's surface and will destroy every living being.

Without the Montreal Protocol, by 2050, there would have been a 50% depletion of ozone over the northern hemisphere and 70% over the southern hemisphere—that's 10 times worse than now! This would have quadrupled the amount of UVB radiation in Australia!

Australia has significantly reduced the use of ozone depleting chemicals, from 14,002 tonnes in 1992, to less than 4,000 tonnes per year!

We consume less than half the amount of CFCs annually, which is less than what we are allowed to under the Montreal Protocol.



Blue colour = thin ozone layer over Antarctica

Recent research by NASA has shown that the overall rate of ozone depletion is slowing. This research supports the widely accepted theory that if the Montreal Protocol continues to be adhered to, there is a good chance the ozone layer will fully recover by 2068!

Wow...there is a lot to know!



Bats in our Bush

As part of the *Spring in the Bendigo Bush* celebrations North Central CMA hosted 'Bats in our Bush' at Kennington Reservoir.

A combination of glorious weather, good attendance and an engaged audience made for a great day.



We were fortunate to have Grant Baverstock as our guest presenter sharing his extensive experience and knowledge of bat ecology and conservation.

Grant's engaging and informative presentation along with Dr. Bill Holsworth's wonderful bat specimens brought the day alive.

Participants were surprised to discover that Bendigo's forests are home to over 10 bat species.

These species are predominantly micro-bats or insectivorous bats and can weigh between 5g to 18g. Using sophisticated echolocation (a high frequency sound) to locate and capture prey such as beetles, moths and mosquitoes, these tiny creatures will eat about 25% of their body weight in insects each night.

Bat species in the Bendigo region typically roost under loose bark, in fissures, or in the hollows or spouts of trees.

Bats populations are coming under increasing threat as a result of habitat degradation and loss.



Waterwatch monitors will be familiar with declining water quality issues and its adverse effects on biodiversity, given that bats also rely on water just as we do. Grant highlighted salinity as a major issue of concern. He also made the point that maintaining healthy water quality and riparian buffer zones whilst

limiting habitat loss are keys to the ongoing viability of these fascinating and complex animals.

The take home message for the public was clear—bats are crucial to our biodiversity.

If you would like to indulge your curiosity and learn more about bat species in the Bendigo region, or would like to know more about what you can do to participate in their conservation effort contact Dr Bill Holsworth – Bendigo Field Naturalists.

Links:

Australasian Bat Society:

<http://ausbats.org.au/>

Australian Museum Online:

<http://www.amonline.net.au/mammals/resources/links.htm#bats>

Bat Atlas:

<http://www.anu.edu.au/srmes/wildlife/batatlas.html>

Bats:

<http://www.wires.au.com/animals/bats.htm>



Kennington Reservoir Family Fishing Festival

North Central Waterwatch was delighted to be invited along to this year's *Family Fishing Festival* at Kennington Reservoir on Sunday, 10th August.

Each year, prior to the second and third term of school holidays, more than 50 'Family Fishing Lakes' are stocked with ready-to-catch advanced rainbow trout yearling weighing approximately 200g.



The Minister Responsible for Fisheries, Joe Helper, came along to share in the fun and joined in with the participants as they released some of the rainbow trout that were stocked on the day. One of two new fishing platforms was also opened on the day by the Minister.

Around 130 families participated in fishing related activities that ranged from informative workshops with Fisheries Officers to knot tying classes with Fishcare.



Waterwatch was also on hand with live macro-invertebrate samples for the public to observe—most anglers would be familiar with these wee beasts as they make excellent live and artificial flies/lures. What surprised some—apart from seeing a diversity of macros up close and personal—was the use of these species as indicators of water quality and waterway condition.



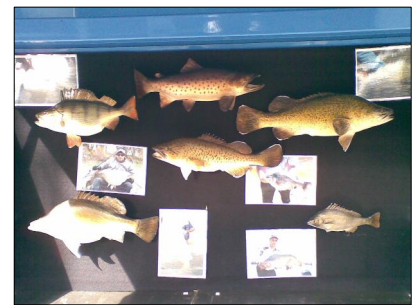
Degraded water quality, reduced flows, loss of instream habitat and riparian vegetation are among some of the issues contributing to declining fish populations, in particular our native fish.

Participants were also able to learn about recreational fishing regulations, improve their general fishing skills and enjoy the beauty of Kennington Reservoir.

The next Family Fishing Festival is planned for Jubilee Lake, Daylesford, on 18th October.

Workshops and activities will run throughout the day providing participants with excitement, fun, skills and information that are required to start fishing.

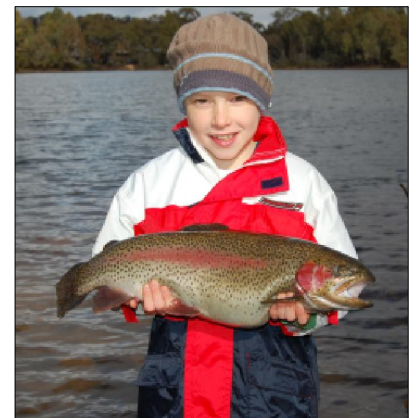
The Waterwatch team looks forward to seeing you there!



Links:

Waterwatch—Fish Identification and Distribution Program

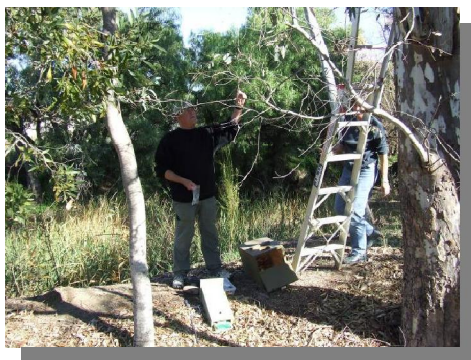
http://www.nccma.vic.gov.au/Getting_Involved/Waterwatch/BiodiversityMonitoringPro/Fish/index.aspx



Friends of McIvor Creek– Nest Box project

In 2007 Friends of McIvor Creek embarked on an ambitious and worthy project—to encourage and restore biodiversity along McIvor Creek. The Heathcote based group obtained funding through North Central CMA and the Landcare network.

Under the guidance of team member Tom Smith, a keen and knowledgeable local naturalist, these funds were put to immediate use with the group designing, constructing and deploying the nest boxes. Doing it themselves meant more boxes could be built.



The group is interested in targeting micro-bats, powerful owls, pardalotes, kookaburras, possums and rosellas—thus each box needs to be built to take into account the species being targeted.



Artificial nest boxes are no substitute for natural hollows, but these may take over 100 years to develop. Natural hollows are often destroyed during firewood collection, fencepost cutting, land clearance, burning and timber harvesting.

The aim of the project is to provide suitable breeding habitat, as well as to encourage a boost in local populations.



Thus far 18 boxes have been built and distributed along the creek, as well as on private

property with a further 7 planned.

Pest species are a major concern – in particular starlings, mynas, sparrows, honey bees, black rats, feral cats and other introduced species may take advantage of the nest box. Tom encourages regular (weekly) inspection of the nest box to prevent its use by pest species.

Once a nest box is occupied by a native species, the temptation to look inside the box should be avoided. Regular observation from outside will indicate what is going on. You might like to keep a log of these observations. Frequent inspection is very likely to lead to desertion of the nest box.



Tom is keen to support similar efforts and provide advice to community groups and individuals who wish to undertake a nest box project in their area. Please direct enquiries through Waterwatch.



Photos of the Quarter— A flooded Gunbower Forest...



Flooding of the Gunbower forest began in late April and finished in late May. The above photos were taken in Gunbower Forest at Black Swamp in mid June this year.

The Waterwatch team was approached to undertake macroinvertebrate sampling in various waterbodies within the forest to determine their response to watering. This sampling revealed that a range of macroinvertebrate species returned soon after the water was released.

Many macroinvertebrate species can survive dry periods for varying lengths of time by drilling down into the moist soil profile and almost completely shutting down their organs until water returns. Others can lay drought tolerant eggs that hatch immediately after water returns. Amazing creatures aren't they!

The next round of macroinvertebrate sampling is to occur this Spring—very shortly!

Waterwatch contacts

Regional Coordinator
 Bianca Huider
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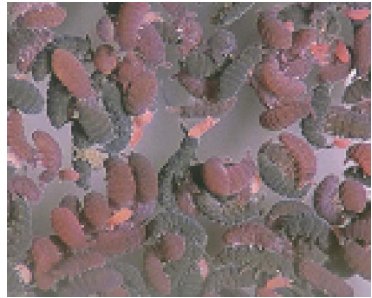
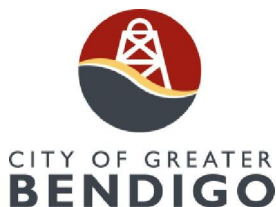
Loddon Campaspe (Dryland) Facilitator
 Shane Thaddeus
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Loddon Campaspe (Irrigation) Facilitator
 Vacant
 Ph: 5440 1811

Avoca/Avon Richardson Facilitator
 Melanie Barrot
 Ph: 0427 887 254
melanie.barrot@nccma.vic.gov.au

What Bug Am I?

I am a **Springtail** of the
Class: Collembola

**Rochester Campaspe
 Water Services Committee**

