Volume 3 Issue 3

April 2010

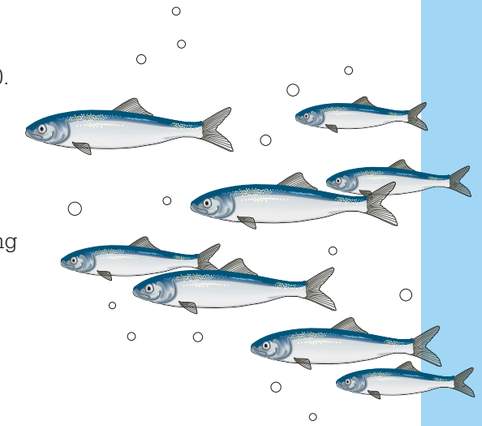
Riverbound Update

A healthy River Murray and riverine environment through sustainable local uses

Events

MWLAP community meeting
The MWLAP will be holding a community meeting on ……. 2010. There will be a presentation of current river data by Local Engineer Rob Frazer.

MYPOLONGA Highland Land & Water Management AGM
The Mypolonga highland Land & Water Management Committee will be holding its AGM on ……. It will commence at 6pm meeting at the Mypolonga Institute with a local district site tour.
BBQ tea 7pm & Guest speaker & AGM from 7.30pm back at the Institute



Bio-controls for Bridal Creeper

Bridal creeper (*Asparagus asparagoides*) is one of Southern Australia's worst weeds, recognised as such with its declaration as a Weed of National Significance (WoNS), because of its invasiveness, potential for spread, and economic and environmental impacts. It has small glossy green leaves and grows as a twining ground cover or climber over vegetation. It grows from tubers under the ground and shoots from these tuber in autumn and dies off again over summer. There are two main bio-controls for Bridal Creeper, a leaf hopper and a rust fungus. These have proved very successful over time at controlling bridal creeper. They do this through reducing how vigorously the plant grows and can also reduce seed set.

Application of Bridal Creeper Spore Water
Complicated equipment is not needed; to spread rust fungus (Puccinia myrsiphylli) spore water on bridal creeper, some simple everyday articles from around the shed can be utilised.
Ensure that this equipment has not been used for other chemicals, especially fungicides as the bridal creeper rust is a fungus and will be destroyed.
To make spore water:

- Collect mature bridal creeper rust fungus from infected bridal creeper in to plastic bags. It can be identified on bridal creeper as rusty brown spots. Usually evident from mid winter.
- Use a clean container to wash the bridal creeper to remove the spores. Gentle agitation by hand is sufficient for the spores to be removed from the plant.
- The water will turn the colour of weak tea; this brown stain is the rust fungus spores.
- Strain into a clean container using a coarse sieve to remove the leaves, etc...
- If a spray unit is used it must have the sieves removed and have large aperture nozzles.
- A watering can is ideal as products with fine holes will become blocked.
- Agitate the spore water occasionally as the spores tend to settle.
- Importantly choose a damp day to spread the spore water.
- Spray or pour the spore water onto bridal creeper targeting the thickest parts first.

Further information
Contact the South Australian Murray-Darling Basin Natural Resources Management Board's NRM Officers.

Committee Members

River Bank collapse hotline

The department's new 24-hour Riverbank Collapse hotline (1800 751 970) is now operational. The new hotline will enable members of the public to report cracking or collapses and obtain information. Major collapses should still be reported to 000.

In addition to the new hotline, further information is available at www.dwlbc.sa.gov.au/murray/drought

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Protecting our Trees and Environment

Government of South Australia
South Australian Murray Darling Basin Natural Resources Management Board

hetta designs
0437 914 066

Willow control along lower Murray River

The Mannum to Wellington Local Action Planning Group has received funds from the Federal Government "Caring for Our Country funds for its "Reducing the Willow Weed" project. The project it is aimed at continuing the reduction of the numbers of willows growing along the lower Murray River.

Dense stands of feral willows cause the following problems:

- Pumping significant volumes of water into the atmosphere through evapo-transpiration;
- Contributing to bank-slumping with the lower river level, by sheer weight of numbers;
- Reducing the local biological diversity by out-competing many native plants;
- Spreading rapidly and disrupting infrastructure.

However, control is being balanced with benefits, which include shade, shelter, wave-splash erosion control, limited habitat value for certain native birds and carbon sequestration/oxygen production. During settlement of the Lower Murray willows were established for bank stabilisation and navigation and have become a part of the landscape for many residents of the area.

According to available information reports show that Willows are using three times the amount of water than a mature River Red Gum (*Eucalyptus camaldulensis*).

The project aims to replace willows and other weeds with natural regeneration and revegetation of local native plants, in selected sites in the region. Six priority sites have already been assessed in the Mannum to Wellington area with on-ground works underway.

We look forward to working with the Caring for Country team & local communities to achieve sustainable environmental outcomes through this project

If you have any queries, please contact Kathryn Rothe, Project Manager on (08) 85 313 222. Also check out the Mannum to Wellington Local Action Planning Group website at www.mwlap.org.au

For more information about the Mannum to Wellington LAP visit the website www.mwlap.org.au

Inside this issue

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Editorial

The MWLAP has been getting on with business as usual with an enormous amount of meetings to attend.

I have a great deal of concern that a number of them are just keeping us busy and not getting on with the job.

After attending the National Landcare conference the same was stated in a number of presentations. One presenter expressed the amount of shuffling paper has taken over the on ground works and it was a concern to him.

I have to constantly remind my self that the LAP is here for the community - and thats a great place to be.

We have had a number of volunteers over the past 3 months and i thank them for their time. They have been working in the nursery, in the office, down in the dungeon (now that may sound scary but we let them out again!). They have assisted with wetland monitoring, collating water samples for the past 3 years and mailing out to the farmers and so much more.

We have run a workshop on propagation well attended by the correctional group who have been working at the nursery. A slight disaster when the water got accidentally turned off but the plants are bouncing back now.

The River Murray Youth council has kicked of again with a special group of students who wont to learn more about the river and the environment. Being a Mentor for this group is very special to me and our area. Many of the Students come with open minds and ideas I only wish I had funds to do the works on ground that they are interested in and keep it going for 5+ years.

The willow program is going great and a lot of work has been achieved - a steering committee has formed and a lot of progress has been made.

I am still attending the Lower River Murray Drought Reference Group meetings and pushing for communities voice at those meetings. Another social impact assessment reference group has been formed in our area with one committee member attending and I to express our concerns.

Food Connect was another great outcome. Many of the guest speakers spoke of farmer to plate concepts and what policies need to change to look after our Australian Farmers etc.

The LAP has a membership list now so if you want to become a member it is for free but it helps us keep in-contact with you and bid for $ in the future.

Kathryn Rothe

MWLAP Staff
Kathryn Rothe, Project Manager
Cheryl Doecke, Water Events & Financial Officer

State NRM Community Grants

CARING FOR OUR COUNTRY

Fencing at Long Flat – Works Completed
Works conducted at Long Flat to fence riparian area as protection for the ecosystems from grazing cattle.

Morphet Reserve - Revegetion & threat abaitement maintence works being completed at present

Revegetation Works in the Mannum to Wellington Region- Revegetation incentives are currently still available – please contact the MWLAP for more details

Willow Weed Control – Willow control works on special selected sites are currently being undertaken

Murray Bridge Scout Group

SCOUTS AUSTRALIA

Metals Recycle Day

Aluminium, brass, copper, electric cable, radiators, lead, aluminium cans, white goods, car bodies cans and bottles.

We are endeavouring to have recycle metals day as a fund raiser to improve our facilities. The group has more than doubled in size from 39 youth to over 90 youth. We are the fastest growing Scout Group in SA with probably the worst facilities.

The committee is endeavouring to change this by new endeavours such as this to build a new shed with useable space.

The idea is for people to ring up or email and we will collect from the driveway or front yards at times that suit both parties.

Please contact Glenn via email or 0438 545 747 to book a pick up.

Murray Bridge Scout Group
PO Box 1074, Murray Bridge SA 5253

Murray Bridge Council Wetlands & Stormwater

Rural Avenue Wetlands
The Christian College have been involved in the planting as well as the Youth Community service. The detention basin has been increased significantly to reduce flooding in the Christian Road area. Over 5000 local indigenous, aquatic plants, trees and shrubs have been planted at this location. This detention basin is to filter water before being input into the aquifer.

Murrundi Reserve Wetlands
With the help specifically from Heather and John Spry this wetland has seen huge improvements. The Jervois Primary and El Shadi Christian camp have ongoing monitoring and tree planting as part of their education program.

Water Conservation
Most water for road construction and tree watering comes from the Greenlands Dam and Hindmarsh Road dam reducing our reliance from SA Water or Councils River Murray water licence.

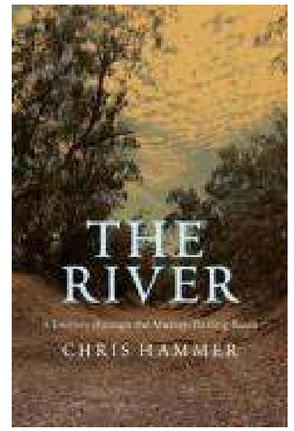
Aquifer Reuse
Council has instigated testing on two stormwater bores to assess the availability of water. Tests have shown positive results at the Golf Course and Rural Avenue Wetlands. Testing of long term flow rates were initiated in December 2008. Unfortunately poor flow and salt failed at this depth. A new test is required and a different depth may be more promising.

Council has also introduced to most public toilets the Desert Eco Water Saving System. This is an environmentally friendly waterless urinal block.

Stormwater harvesting at the depot to have the buildings and gardens supplied by rain water, making the depot 100% self sufficient This was funded by a Community Water Grant by installing 2 x 45,000 litre rain water tanks.

Glenn Dean, Parks and Gardens Supervisor
Rural City of Murray Bridge
ph: 08 8539 1167

NEW Book out now THE RIVER by Chris Hammer



Australia's major river system, the Murray Darling, is collapsing. Parts of it are dying; parts of it are already dead. Some places near the shores of South Australia's lower lakes, where the Murray has stopped flowing, may never recover. Australia's most significant river no longer reaches the sea. Ecosystems are dying, farmers are going to the wall, towns are emptying.
This was the Murray Darling that journalist Chris Hammer found in the summer of 2009 as he drove along the river.

The River tells the story of the things he saw and the people he met: of farmers practical yet delusional, of towns so friendly yet hidebound. He also tells stories of the environment, and sees first hand the effects of climate change, drought and mismanagement on the land.

What is the future of settlement west of the Great Dividing Range? Can the once-mighty Murray-Darling river system continue to support the agricultural industries and towns of the hinterland, or will Australians increasingly be forced to retreat to desalination-dependent coastal cities? Chris Hammer explores these questions and more in this compelling investigation into one of Australia's key environmental and political issues. Part travelogue, part personal observation, The River is environmental reportage at its best.

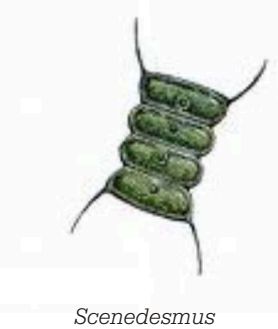
Chris Hammer has worked as a journalist for over 20 years. He has worked as a senior journalist for The Age, has previously worked as chief political correspondent for The Bulletin and reported for SBS TV's flagship current affairs program Dateline.

Water Quality Monitoring & Microalgae

I've been working as a volunteer with MWLAP for the last 3 weeks & so far it's been a very interesting experience. My work background was mainly as an electronics technician but in 1993 I became involved with aquaculture growing freshwater native fish, then aquatic worms & brine shrimp as live feeds for the aquarium industry as well marine fish (Yellowtail kingfish) & large edible aquatic snails (Escargots). Along the way I studied aquaculture at Deakin University as an external student & gained a Graduate Diploma of Aquaculture. In the last 4-5 years my main interest has been microalgae. Microalgae, also called Phytoplankton (Phyto=plant, plankton=microscopic organism), are microscopic plants found in waters all over the planet. They are found in every imaginable place, from freezing Antarctic waters to boiling waters in volcanic areas as well moist soils on land. These remarkable plants contain a wide and interesting array of phyto-nutrients.

Selenastrum

This versatility makes them a good choice for healthfood supplements, stockfeeds, cosmetics, organic fertilizers & recently, biofuel. Some microalgae, such as Spirulina & Chlorella are gaining popularity as healthfood supplements because they contain a wide variety of vitamins, minerals, protein, amino acids & carotenes. Almost a complete meal on their own, however the taste is not one I long for!



Scenedesmus

Two microalgae commonly used for nutrient removal.

Most people associate Omega-3 with fish, however fish are unable to synthesise this important product & in turn extract it from microalgae. Many microalgae produce Omega-3, but some produce outstanding amounts. Omega-3 from microalgae doesn't become rancid like fish oil or taste fishy.

Although research is still in it's infancy, microalgae has great potential as a future supply of biofuel. When we burn fossil fuels, we release into the atmosphere carbon byproducts that have been stored underground for thousands of years. Now imagine fuel derived from microalgae, any carbon byproducts released into the atmosphere would have been harvested from the atmosphere only days or weeks earlier. Microalgae can potentially produce 90,000 litres of oil/hectare/year, compared to Soybean (450L/hectare/year) & Canola (1200L/hectare/year).

Microalgae are finding their way into many industrial processes. For example, there is much research going on at the moment using microalgae to clean waste water. The city of Hopewell (Virginia, USA) has begun a trial using algae to remove nitrogen from the wastewater discharged from the Regional Wastewater treatment facility instead of using conventionally engineered solutions that would cost $90 million to set up. In New Zealand, the Christchurch City Council is using algae to clean up waste water from their wastewater treatment plant then harvesting it to produce bio-crude oil.

One of my areas of interest at MWLAP is water testing & calibration of salinity meters loaned out to various interested parties. I will be available on Thursdays for anyone who wants water tested.

On Monday 15th February I attended a training workshop for those collecting and testing water samples. The workshop, run by Greg Lundstrom had 25 attendees from a wide geographical area. A number of people gave short reports on what they were monitoring & where. Greg showed us that previously collected data is now available online. This means interested parties can now access water tests conducted by others in their water catchment area and compare results. This was followed by some hands on water testing where the participants were able to test salinity, phosphate & nitrate levels. Greg Lundstrom did an excellent job in bringing the training together for such a wide range of people.

Trevor Honeychurch

Murray Hardyheads Survive at Rocky Gully

In March 2009, an emergency watering at Rocky Gully wetland was granted by the Commonwealth water-holder to prevent ecological collapse and to save the remaining population of Murray Hardyhead (*Craterocephalus fluviatilis*).

The Murray Hardyhead is a small-bodied native fish and listed nationally as a species of conservation significance, the Murray Hardyhead does not have a long life span, approximately 1-2 years. Previous fish monitoring detected a distinct lack of juvenile fish, which is a result of the poor conditions. The pumping project used 10megalitres to restore water quality to within the tolerance levels of the fish.

Since then, monitoring conducted in November 2009 and February 2010 detected juveniles within the wetland but no adults, which means they were able to produce young just before they reached the end of their life-span.

Anyone interested in attending monitoring days or working bees are encouraged to contact Kate Mason (08) 85 321 432, Kathryn Rothe (08) 85 313 222 or Fred Saunders (08) 85 321 427

Paiwalla - New Home for Purple-Spots!

The Southern Purple-spotted Gudgeon (Mogurnda adspersa) is a charismatic small-bodied native fish that is under heavy threat of extinction in the Lower Murray. Previously considered extinct in SA, it was rediscovered in only one small wetland in 2004. Thanks to the quick thinking of certain locals and organizations, the species has had much success in captivity.

Re-introduction of a number of juvenile Purple-Spotted Gudgeons into Paiwalla Wetland occurred on the 24th March following the addition of 30ML into an isolated section of the wetland. As the wetland is located only a short distance from the last known wild population it will hopefully provide a refuge for the species and a boost in numbers.

Approximately 30 Alberton Primary School students assisted with the fish release into the wetland. The students have been a part of the breeding program with their own hatchery based at the school. Monitoring of the site will occur to ensure good conditions for the young fish and to detect breeding events.

This project is a combined effort between the Wetland Habitats Trust of Paiwalla, Waterfind (Healthy Rivers), Department for Environment and Heritage (Threatened Fish Drought Action Plan), the SA Murray Darling Basin Natural Resources Management Board and Aquasave.

For more information contact Kate Mason on (08) 85 321 431, kate.mason@samdbnrm.sa.gov.au

Are You Getting WET ?

WET ?

A group of 9 ladies have got together to form a group called WET (Water Election Team). They have formulated a questionnaire that identifies key issues for the River, Lower Lakes & Coorong and is used as a tool for addressing, debating, creating awareness & reflection on the key issues for fresh water initiatives, as a campaign to the electorates, community groups & individuals and will continue its works after the election.

March 10 brought them to the steps of Parliament House to campaign. The WET questionnaire report card was presented to Parliament on March 17.

Want to know more?

Visit www.hurrysavethemurray.com
Lower Lakes & Coorong Action Group

Hurry, Hurry Flush the Murray

On Sunday March 14 the Lower Lakes Action Group met on the Steps of Parliament House to campaign for real water solution for the River, Lakes & Coorong. Nick Xenophon was present for the Real Water Solutions press conference and announced his Bill to manage the northern basin floodwaters.