

Carp movement study update

Fish ecologists from Arthur Rylah Institute (ARI) have successfully downloaded receivers that were set up to study the movement of 40 tagged carp at Gunbower Forest in November.

Some interesting details have emerged of where and when the Gunbower Carp moved during the flood event experienced in late 2016. Project officer Kathryn Stanislowski explains: "We found that the carp moved between the forest and the Murray River multiple times during the natural flood event. We were also interested to know if they stayed in the forest or if they left as the flood waters drained from the forest. What we found is about half the carp left and half stayed in the forest."

The tracking has also identified the key exit and entry points the carp use between the forest and the river.

Four of the Gunbower Carp were also detected at the junction of the Goulburn and Murray rivers by another project.

"The four carp tagged at Gunbower have travelled over 50 kilometres to reach the Goulburn River junction," Kathryn said.

The information gathered through our carp monitoring will help us better understand how carp behave during flood events and how we can manage water in the forest to reduce our contribution of carp back into the Murray River system.



Fish ecologist Jason Lieschke releasing a tagged carp back into the forest in November 2016.

Cleaning up Gunbower Creek

On February 28 the North Central CMA along with some willing community members joined hundreds of other businesses to clean up our patch of the country, as part of the National Clean-up Australia Day campaign.

"Armed with gloves and bags we collected rubbish from Gunbower Creek foreshore and the creek itself," North Central CMA project officer Amy Russell said.

"The day was a great success and we would like to say a big thank you to those who helped out, including local angling club members, the Ganawarra and Campaspe shires for providing the bins, and to those who brought their boats

and allowed us to access some difficult areas," Amy said.



Philip McManus and Wendy Duckworth-Veitch with some of their rubbish collected from Gunbower Creek.

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NORTH CENTRAL
Catchment Management Authority
Connecting Rivers, Landscapes, People

COMMUNITY NEWSLETTER

Edition 16: Autumn 2017

Welcome to the 16th edition of the Flooding for Life community newsletter.

The benefits of the natural flooding in Gunbower Forest last year can still be seen. We hope that you are taking advantage of the warm autumn weather to get out there and enjoy all that Gunbower Forest has to offer.

Exciting find during fish surveys

In addition to some reported sightings by local anglers, recent fish monitoring at Gunbower Forest has found an increase in the number of Murray-Darling rainbow fish in wetlands and Gunbower Creek.

The rainbow fish was once widespread across the Basin, however numbers have declined in the Murray region as a result of predation by introduced fish species such as carp, altered river and wetland flows from river regulation and loss of aquatic plants.

"They are most commonly found in slow-flowing rivers and wetlands where they feed on aquatic and terrestrial invertebrates and some algae. Adults generally grow to around 70mm and wouldn't look out of place on a coral reef with their striking green iridescent

body and red tail." North Central CMA project officer Kathryn Stanislowski said.

Although it has been widely reported that introduced species have responded to the recent flood events, it is pleasing to see that our native small body fish are also equipped to make the most of the conditions.



An adult Murray-Darling rainbow fish in full colour (photo Clayton Sharpe.)

Why did the quail cross the road?

During our annual vegetation monitoring, our team of ecologists were lucky to spot these two painted button-quail chicks crossing Centre Break Track with their dad. Similar to emus, the father takes on the responsibility of raising the young after they hatch. In southern Australia



Painted button-quail typically breed between August and February so these parents were either late starters or made the most of the season and decided to have another clutch.

Two painted button-quails captured in Gunbower Forest (photo Damien Cook).

The North Central Catchment Management Authority acknowledges Aboriginal Traditional Owners within the region, their rich culture and spiritual connection to Country. We also recognise and acknowledge the contribution and interest of Aboriginal people and organisations in land and natural resource management.

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Illegal drum net in Gunbower Creek

Members of the Barapa culture team and North Central CMA came across an illegal drum net set up in Gunbower Creek down towards Koondrook during recent fieldwork.

The net was brought to the bank and silver perch, carp and an eastern long neck turtle were discovered trapped inside the net. The critically endangered silver perch was returned to the creek and the carp was disposed of, but the turtle had drowned inside the net.

"Unfortunately we were too late and the turtle had drowned," project officer Will Honybun said. "The turtles swim into the drums for the bait and drown when they cannot escape, one net has the potential to drown dozens of turtles so it can be quite devastating."

Members of the public are encouraged to report suspected illegal activities to the 24-hour fisheries offence line on 13 FISH (13 34 74).



A drowned turtle that was found in the illegal drum net in Gunbower Creek.

Interesting plant find in the forest

Flora surveys in spring discovered the presence of an uncommon and quite interesting aquatic plant. The yellow bladderwort (*Utricularia australis*) is a carnivorous plant that traps and digests insects.

"These plants are commonly found in still or slow-moving shallow water up to 60 cm and the yellow flower can be observed from November through to April," project officer Genevieve Smith said.

"These plants use bladdertraps which are located under the water surface to trap and digest insects. The bladder has bristles on the outside of the bladder which trap the insects and a flap or 'door' then opens and the inrush of water carries the insect into the bladder, the door then closes and the insect is digested."



Yellow bladderwort found in Gunbower Forest (photo Kate Bennetts)

It's turtle time

Our turtles are great. And so, too, are our volunteers who take the time and effort to monitor their movement, record their location and assist in their recovery.

"Autumn is nesting season for the broad-shelled turtle, (*Chelodina expansa*) which is listed as threatened in Victoria. While there are contributing causes to their decline the primary reason is predation of their eggs by the introduced European red fox," North Central CMA project manager Adrian Martins said.

"Every season females emerge from their watery habitat to lay their eggs, and foxes with their highly developed sense of smell, are able to easily locate buried nests and consume all the eggs.

"Many female turtles are often also killed and eaten by foxes during the course of their nesting, either during egg laying or when traversing to and from their water source. Add to this the impact of females killed by vehicles when crossing a road to reach their preferred nesting place and the toll quickly mounts up," Adrian said.

Quite simply, turtles need our help if they are to survive into the future.

Broad-shelled female turtles often emerge to nest upon or during rainfall. If you see a turtle during this time watch from a distance so as to avoid disrupting the nesting process and if egg laying occurs, wait until the female finishes concealing the nest and moves away.

If you can, then protect the nest using something that prevents a fox from locating and digging up the nest to consume the eggs. A temporary solution is a small sheet of scrap iron or flat timber weighted down. Broad-shelled turtle eggs can take up to a year before

hatching. To ensure baby turtles can emerge from their nest it's therefore important to return to the nest and remove the temporary protection and secure it with a mesh product such as gardening trellis. This material enables baby turtles a safe passage through the mesh gaps whilst preventing foxes from digging up the nest.

The mesh needs to be pinned into the ground by small metal pegs. In sandy soils, thicker plastic tent pegs are required to ensure stability of the mesh. More information on nest protection with photos can be seen here <http://www.turtlesaustralia.org.au/Turtle-nest-protection>

It's a good idea to keep a few turtle 'nest protection kits' at home or in the car for when you might encounter a nesting turtle. If you would like some please contact the North Central CMA on 5440 7124 or contact Turtles Australia Inc on 0405 530 372

Finally it's important to record all turtle activity or sightings in www.turtlesat.org.au which can be downloaded as a smart phone app or used on your PC.



Graham Stockfeld from Turtles Australia with a baby Broad-shell turtle (photo Greg Wallis).

Five minutes with Merrill Boyd

Merrill Boyd was appointed the Goulburn Murray Irrigation District's Regional Engagement Officer for the Murray Darling Basin Authority in November.

We recently caught up with Merrill at the Gunbower Community Reference Group meeting to talk about her new role.

"The appointment of seven Regional Engagement Officers across the Basin is to assist the MDBA with engagement at every level. It is also an opportunity to build trust, break down barriers and build connections and understanding of the differences throughout the Basin. We are your local connection to Canberra.

"With our insights into local issues we hope to increase the communities' understanding of water

management and reform and improve information exchange between communities and the MDBA. This will help strengthen MDBA's decision making through better consideration of local impacts.

"People can contact me with questions or queries and if I cannot answer the question then I will know who to direct it to in Canberra."



Merrill can be contacted via email at merrill.boyd@mdba.gov.au or via mobile on 0438 678 323

Traditional Owner monitoring

Barapa Barapa and Yorta Yorta Traditional Owners have been spending time on Country to see and hear about some of the monitoring activities we undertake to track the health of the forest.

Each group spent a day assisting with both wetland and fish monitoring activities as a component of our annual condition monitoring of the Forest. Clayton Sharpe was on hand to assist with the fish surveys while botanist Kate Bennetts attended to demonstrate the vegetation surveys.

For the vegetation surveys a 100m transect was set up across a wetland to observe the changes in plant communities with depth, water regime and other factors. "The wetland surveys are one of the ways we can see the story that the wetland is telling us by noting the plants we are observing," Kate said.

The participants also had the opportunity to observe fish survey techniques including fyke netting and electrofishing.

"The groups had the opportunity to learn about how different fish are surveyed, why we target particular areas, and what we have been seeing out in the forest after the flood," Clayton said.



Yorta Yorta Traditional Owners setting up a fyke net to survey fish in the wetland.