Carp control for healthy native water plants

Carp were recently removed from Reedy Lagoon and Black Swamp in Gunbower Forest using a novel control method. Some water remained in the wetlands following the 2016 natural floods. These residual pools were full of carp. To remove the carp we pumped the pools dry, allowing us to capture and remove them.



Residual pool at Black Swamp

"We know carp do a lot of damage to wetland vegetation. As part of our planning for this year's watering of Reedy Lagoon and Black Swamp we wanted to reduce the number of carp," Living Murray Project Officer Sophia Piscitelli said.

"Removing the carp gives the plants in these wetlands the chance to flourish and establish a good seed bank for future years.

"Given most of the fish were mature adults ready to spawn, it was critical to get them out of the wetlands before watering.

"We removed 189 carp from Reedy Lagoon, weighing about 880kg. At Black Swamp there were 86 adult carp with the largest weighing 8.3 kg and 72cm long."

Following carp removal, water was delivered in October through the small environmental regulators on Gunbower Creek. The water for the environment will also provide refuge for turtles, waterbirds, frogs and other animals over the hot summer months.

"While we can't be sure we got every single fish out, we had a good crack at reducing the numbers," Sophia said.

"We saw aquatic plants germinating within a week of delivering water, so we think getting the carp out has made a difference."

Summer and autumn plant surveys will be undertaken to assess how the vegetation is responding. This will help us better understand the impacts of carp on these wetlands and whether this is a practical approach to carp control that we could use again in the future.





Reedy Lagoon before (top) and after (bottom) watering this spring.

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Flooding for Life



NORTH CENTRAL Catchment Management Authority Connecting Rivers, Landscapes, People

Welcome to the 18th edition of the Flooding for Life community newsletter. The spring edition features updates on spring watering in the forest, a fox baiting program to protect turtles, and a sediment core project aiming to uncover historical wetland patterns.

We had a perfect sunny day this year for the annual Big Cohuna Festival on 5 November. The North Central CMA again ran the Catch-a-Carp kids fishing competition and two Gunbower Forest bus tours.

We had more than 50 children and their families come along to try their hand at carp catching. Together they caught nine carp, one golden perch, a yabbie and a very slimy stick! The lucky winners were Tyler Wilson for the smallest carp, Jye Tucker for the biggest carp, Braia Denton for the most carp caught, Harrison Parsons for the most interesting catch of the day (yabbie), and an honorable mention to Matilda Moore for managing to catch a stick on her rod.

The two bus tours into Gunbower Forest were well attended by both Cohuna locals and visitors. Reedy Lagoon, a permanet wetland, received water for the environment this spring, and tour participants were treated to witnessing the strong aquatic vegetation response.

North Central CMA staff talked about how they monitor the health of the wetlands and forest with water for the environment.

North Central CMA fish ecologist Peter Rose demonstrated backpack electrofishing as one of the key fish monitoring techniques. This instrument sends electric pulses into the water, momentarily stunning fish so they can be caught, identified, counted and then released.



Peter and Amy, demonstrating electrofishing



COMMUNITY **NEWSLETTER**

Edition 18: Spring 2017

The Big Cohuna Festival 2017



A happy Tyler Wilson with his catch

"The second tour group were lucky enough to witness a red belly black snake swimming in the lagoon and then resting on a log in the water to eat a frog", Project Manager Anna Parker said.

"It certainly got hearts racing! We know water for the environment provides these resouces and we were lucky enough to see them in action!"

Acting Project Manager Amy Russell also spoke about the fox baiting program currently underway in the forest (details over page).

North Central CMA staff enjoyed taking visitors out into the forest, and the chance to talk about some of the projects that are underway to improve the health of the forest and its wetlands.

Sediment cores uncover wetland history

North Central CMA staff and Barapa Traditional Owners have been helping researchers from Federation University collect sediment cores from five Gunbower Forest wetlands.

The cores are collected using a hand auger that is driven into the wetland sediment, a bit like an apple corer, to extract sediment that is removed and then analysed back at the lab.



Collecting sediment cores at Gunbower

"The layers in the cores will be analysed and dated so we can better understand the major ecological changes that have occurred in the wetlands over the past few hundred years," Project Officer Will Honybun said.

"It's like looking back through time. Sediment cores allow us to examine the pollen trapped in the sediment, to understand the type of plant species that were historically present and how the makeup of plants has changed over time. The cores could also help us understand when significaint environmental events may have happened, for example, droughts, bush fires and floods.

"This type of information can help us better understand the ecological history that has led to the wetlands that we see today."

We expect full results in March 2018, so stay tuned.

Flooding for Life

Turtles cool for school

Gunbower and Welton Primary School students recently met staff from North Central CMA's Gunbower Forest Key Asset Protection Project and Turtles Australia on the banks of the Gunbower Creek to talk turtles.

The main aim of the day was to raise awareness about the threats to turtles and to encourage the students to help with turtle conservation. They learned about why turtles are so important in our environment; they're excellent cleaners of our waterways and play a vital role in cleaning up decaying material in the water.

Students were given their own nest protection kit to take home and shown how to use it. The kits protect eggs from becoming an easy meal for foxes, but allow baby turtles to emerge when they are ready. They also tested a water sample for phosphorous levels, pH, salinity, turbidity and temperature.



One of the students with a turtle brought along by **Turtles Australia**

The stars of the show we're most definitely the friendly turtles bought along by Turtles Australia. They were such characters, and didn't mind getting to know the students at all.

You can help us better understand turtle distribution in the region by submitting any turtle sightings to www.turtlesat.org.au.

November is turtle nesting season and the North Central CMA's Gunbower Forest Key Asset Protection project is pulling out all stops to help out though an intensive fox baiting program.



A baby eastern long-necked turtle at Gunbower Forest

North Central CMA Acting Project Manager Amy Russell said the aim of the baiting program is to protect the area's turtle populations during the breeding season.

"Turtle numbers across this part of the state have drastically declined between 70% and 90% in the past 40 years. Some of the scary statistics include a figure of 98% of turtle eggs being predated on, and foxes account for over 90% of this predation figure.

"If all the turtle eggs are getting eaten, then there are no young turtles making it into the population," she said.



Fox plundering a nest of turtle eggs

The North Central CMA, together with a number of researchers, is aiming to increase the number of baby turtles that survive. A range of activities are underway, including an intensive fox baiting program.

It's turtle time!

"In Gunbower Forest there are three types of freshwater turtles; broad-shell, Murray River and the eastern long-neck. Over this baiting period we will ensure we are doing our best to protect all three species.

"The intensive fox baiting will use a range of lethal 1080 baits and non-lethal methods to reduce fox numbers in a defined section of Gunbower Forest. The program will run for 10 weeks to ensure fox numbers are reduced during this critical breeding period."

North Central CMA, researchers and contractors will be monitoring progress regularly throughout the program and checking and replacing bait stations to ensure our baiting program is as successful as possible.

The baiting program commenced Monday 9 October and will be finished by Friday 15 December.

During this time there are a few things to remember:

- Please keep your dogs on a leash at all times in the area over the 10-week period
- Report turtle and turtle nest sightings at www.turtlesat.org.au
- For further information on the Gunbower Forest Ramsar Wetlands Project go www.nccma.vic.gov.au or contact Amy Russell on (03) 5448 7124
- Adhere to 1080 signage that will be placed throughout the program area in the forest.



A turtle having its say about the fox baiting program