

Rivers, the veins of our Country

Nine case studies of First Nations involvement in managing water for the environment in the Murray-Darling Basin 2022-23

Sharing knowledge on Tjowila – Chowilla Floodplain

Continued collaboration in floodplain monitoring

Authors: River Murray and Mallee Aboriginal Corporation and Alison Stokes, Department for Environment and Water.

‘We was around the river before we started working around the river.... there is already a prior knowledge’

William Cook, RMMAC Ranger

Over the past 2 years a successful partnership has formed between the River Murray and Mallee Aboriginal Corporation (RMMAC) Rangers and the South Australian Department for Environment and Water (DEW) ecologists.

William Cook explains why the partnership has been so successful. The partnership was formed in 2022, when the RMMAC Rangers were contracted to support ecological monitoring on all 3 major floodplains in South Australia, including Tjowila (Chowilla Floodplain). This work includes frog call surveys, fyke netting for small-bodied fish and tadpoles, understory vegetation surveys, turtle nest surveys and turtle tracking.

The success in its first year saw the partnership continue into 2023, with a total of 12 RMMAC Rangers involved in the monitoring.

‘We get to show them things that we know and they show us things that they know and we don’t’ Cloe Zielke, RMMAC Ranger

The partnership enables the RMMAC Rangers to share their knowledge about Country and Culture with the ecologists whilst learning new skills and developing their ecological knowledge about the floodplains.



Sussan's passion for frogs and tadpoles is infectious, she is seen here holding a long-thumb frog and southern bell frog metamorphs along with an adult long-thumb frog. Photo Credit: Grace Hodder



*RMMAC Ranger Adrian Grey processing
a catch at Coppermine Waterhole
Photo Credit: Helga Kieskamp*

The RMMAC Rangers have become skilled in small-bodied fish and tadpole identification, determining the stage of their growth, setting then later pulling fyke nets and measuring water quality. The RMMAC Rangers have also supported a variety of other surveys giving them the opportunity to learn about plant identification and the use of radio tracking equipment to track tagged turtles from a dingy.

'I want to continue doing this because it is real fun and exciting, so I love doing it'

'I can't say I am excellent at it, but I do know most of the species'

Sussan Cook, RMMAC Ranger

Without the RMMAC Rangers' support in undertaking this work, particularly during the 2022 flood event, it wouldn't have been possible to carry out the scale and extent of monitoring across all of these floodplains. The partnership enabled valuable data to be collected during the largest flood in the region since 1956.

In 2023, this partnership has provided the opportunity for the RMMAC Rangers and ecologists to better understand the ecology of the fish, frogs and tadpoles that are using Tjowila wetlands and lakes, and how these species have responded following such a large natural flood. The data collected during these monitoring activities is used to inform delivery of water for the environment both in the planning stages and in real-time.

RMMAC and DEW are committed and keen for the partnership to continue into the future, further developing the knowledge and skills of the current and new RMMAC Rangers and ecologists alike. The collaboration will also ensure that Culturally important sites and species continue to be considered and prioritised during the planning and delivery of water for the environment.

To hear more of the RMMAC Ranger team's monitoring of the 2022 flood see:

<https://www.youtube.com/watch?v=2S0TCG9enPs>



Long-necked turtle being held by Lucy Sumner during fyke net surveys at Pilby Lagoon. Photo Credit: Luke Vial



Rangers Lucy and Cloe along with Chowilla ecologist Luke Vial, identifying, counting and measuring the catch during small bodied fish and tadpole surveys - Photo Credit: Grace Hodder



Thomas Kurt holding his first southern bell frog (listed as vulnerable in SA) – Photo Credit: Grace Hodder



Ranger William Cook with a long-neck turtle at Pipeclay Billabong. Photo credit: A Stokes.