

River Detectives Story Of Change

**Minyip Kindergarten and Rupanyup Kindergarten,
Wimmera CMA region, 2024**



River Detectives is a cross-curricular citizen-science program connecting teachers and young people with their local waterways. Through water-quality testing, macroinvertebrate sampling, and habitat surveys, students learn about the importance of catchment health and their role in caring for it.

The program is available to schools and youth groups in five regions across Victoria. Some aspects of the program are suitable for preschool-aged children, with sessions provided to early childhood services when capacity allows.

Christiana Henke is the Early Childhood teacher at two services in the Wimmera CMA region; Rupanyup Kindergarten and Minyip Kindergarten. Both are small services in a grain and livestock farming area. Rupanyup Kindergarten has six children enrolled, aged three, four, and five. Minyip Kindergarten has nine children. Both services are a fundamental part of the small communities of which they belong. They are blessed with nearby reserves and bushland, dams and wetlands. Both programs currently operate from the Minyip building due to the redevelopment of Rupanyup Kinder's playground.

Wimmera CMA River Detectives coordinator Jeanie Clark contacted Christiana in 2024 with an offer of including water experiences in their program. Christiana enjoyed prior experience with the WaterWatch program and knew of the similarities to River Detectives, with possibilities to study living things and access local wetlands for water creatures.



Jeanie suggested waterbug incursions for Term Four, also serving as professional development for Christiana. This topic fitted in with their current learning about nature, in particular insects. The children were very interested in bugs; their number of legs, special features, their habitats and eating habits (with all the gory details of course). They were also learning about the characteristics of different shapes.

Christiana explains, *"The timing for Term Four was very convenient as the children of both services had an intense interest in bugs/insects and this had been a focus of the program at both services for some time. As the wetlands are*

some distance away from the service, it wasn't feasible for us to visit them in person. The River Detectives program provided us with a very accessible and convenient solution."

Jeanie collected water samples from three different in-stream habitats of the Minyip Wetlands and shared them during incursions with the six Rupanyup Kindergarten children on October 18 and with the eight Minyip Kindergarten children on October 22.

Jeanie introduced sessions by showing the children a photo of where she collected the water to familiarise children with the site. She talked about the shapes of the creatures likely to be found to tie this into their recent learning.





Rupanyup Kinder children fishing for waterbugs.

Three trays were set up with water and bug samples from the three different in-stream habitats. The children observed the myriad of life swimming around in the trays then 'fished' for waterbugs using scoops.

Jeanie put the bugs into small petri dishes with lids. Magnifiers were placed on top of the dishes so the children could get a close look at the bugs' bodies. They were challenged to match bugs with the identification photos provided and work out what their names were.

The children were extremely excited and maintained their engagement for an extended period of time.

Each tray varied in water clarity, plant material, and health. Children discovered the channel and deeper water catchment were very active with bugs, but the dam was less active. They learnt that the dam provided less food and camouflage for the bugs to hide from predators.

Christiana received lots of fantastic feedback from children and families.

"Children from both services asked when the water bugs and Jeanie would be back again."

One Rupanyup Kindergarten family regaled how their child recounted all the aspects of waterbugs all weekend and wanted to call grandparents each time they recalled a new detail!

It had a very positive impact on the children, spreading awareness to them and their families of the local environment and the people within their community who are sources of knowledge."

Christiana acknowledges activities such as these develop an awareness of the world and each child's place in it – appreciating all creatures large and small. Children become more aware of their impact on other living things and develop empathy. They begin to realise that although a creature may be very small or hard to see, it is still a creation and requires care and respect.

Christiana enjoyed witnessing the development of interest in the children.

"Children remarked they wanted to see the water bugs in their natural environment. They were also concerned for the bugs' welfare, ensuring they had enough water in viewing dishes to breathe. I assured them Jeanie would return them to their natural environment once the session had concluded. The children closely watched how carefully the bugs were transported."



Rupanyup Kinder children study the features of each bug to identify them.



Minyip Kinder children compare bug shapes.

Educators produced photo pages about the incursions and shared them with the community through the local Community News Sheet and via Yarriambiack Shire Council's website.

Moving forward, Christiana would like to see the services work with the River Detectives program again, ideally over several sessions with an excursion to the Minyip Wetlands with children.

"This was a fantastic starting point to gauge interest and showed the extent of engagement the children achieved.

We are looking into installing a water sensory area to appreciate the habitat and ecosystem that water provides.

We would also like to build upon our current sustainability practices with gardening; composting; limiting water and electricity usage; reducing, reusing and recycling."

These incursions demonstrated it's never too early to start environmental literacy and, in fact, it's often our youngest citizens who have the greatest capacity to wonder at the way nature works. The future is bright if the respect, curiosity, and care that these children showed stays with them as they grow into tomorrow's environmental champions.



Minyip Kinder children (left) and Rupanyup Kinder children (right) were proud to receive a waterbug lifecycle poster to remember the incursion by and share with their families.

For more information about River Detectives:

Email riverdetectives@nccma.vic.gov.au or visit www.riverdetectives.net.au