

River Detectives Story of Change

Emmaus Catholic Primary School

Corangamite CMA region, 2025



River Detectives is a cross-curricular citizen science program connecting teachers and young people with their local waterway. 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.

Emmaus Catholic Primary School (ECPS) is located in Mt Clear, a suburb on the southern edge of Ballarat. A medium-sized Catholic primary school with a warm and welcoming community, the school is made up of families from both the local area and surrounding districts.

ECPS teacher Rachel Smith explains: *'Beyond its academic value, River Detectives is a core expression of our Catholic mission to care for our common home and to respect and protect sacred land. It sits alongside our wider sustainability initiatives - including the use of Ecobins for waste management and the development of a permaculture hub within the school grounds - fostering in our students a deep sense of environmental stewardship, responsibility, and connection to creation.'*

The River Detectives program has provided an opportunity for ECPS to actively participate in their local community while engaging students in meaningful, hands-on learning. Engaging in Citizen Science activities allows children to explore scientific concepts in authentic ways, nurturing their innate curiosity and deepening their understanding of the natural world.

'Most importantly, being a River Detectives school is a direct response to the cry of the Earth, helping our students recognise their role in protecting creation and inspiring them to take action that reflects both faith and care for the environment,' says Rachel.



ECPS students exploring their local monitoring site

Throughout their 4-year involvement in the River Detectives program students at ECPS have tested the health of local waterways at Union Jack Creek in Buninyong, Canadian Creek in Mt Clear and previously the Yarrowee Creek in Sebastopol. While on regular visits to these sites with teaching staff students collect crucial water quality data which supports the broader ongoing monitoring of the Leigh Catchment condition and its changes over time.

With their natural curiosity and fascination for the science behind water quality testing, students at ECPS collect water samples to measure parameters such as pH, electrical conductivity, air and water temperature, phosphorus levels and turbidity. Additionally, students have delved into the wonderful world of water bugs to assess biological health indicators of the river.

During monitoring site excursions, students actively participate in games and hands-on activities designed to enrich their understanding of environmental systems, life cycles and Indigenous knowledge. As part of their extended studies, students also engage in orienteering, tree planting, and rubbish collection initiatives – contributing meaningfully to the restoration and protection of their local waterways.

When asked about the most significant change resulting from the school's involvement in the River Detectives program, Rachel reflects on the power of knowledge sharing and the ripple effect that engagement and awareness can create in striving for a more sustainable future.

'The most significant change for our school has been the way the River Detectives program has raised awareness about caring for our environment, both within the school and the wider community. It has given our students the chance to develop real-world knowledge and skills, showing them that their actions can make a tangible difference. Parents have also been amazed at what their children are capable of knowing and doing — from testing water quality and identifying species to confidently sharing their findings and taking meaningful action. This program has strengthened the partnership between school, families, and community, highlighting the powerful role children can play as leaders in sustainability. The combination of family engagement, staff recognition, and student motivation highlights the deep impact the program has had on our community.'



'Being involved in the River Detectives program has provided students meaningful opportunities to contribute to the wellbeing of both the local environment and the wider community'.

Sparking joy, curiosity and wonder.....

Teaching staff have observed that their students embrace every part of the River Detectives experience — from the excitement of going on a bus, to marching through a paddock, to the thrill of trying to work out which water bug they have discovered.

‘These moments capture the spirit of learning, discovery, and stewardship that this program inspires in our school community.’



Exploring the wonderful world of water bugs



Moving forward, Emmaus Catholic Primary School is committed to continuing their involvement in the River Detectives program as a key part of the school's sustainability journey. With excitement building for the development of a school permaculture hub, the growth students have experienced - their knowledge, confidence and ability to lead - will be the spark that lights real change.

The statewide River Detectives program acknowledges the First Nations People across Victoria, their continued rich culture and spiritual connections to Country and waterways. We also recognise and acknowledge the contribution and interest of the First Nations People and organisations in land, water, climate and biodiversity management.

For more information about River Detectives email riverdetectives@nccma.vic.gov.au or visit www.riverdetectives.net.au

Corangamite CMAs Citizen Science program is kindly supported by Central Highlands Water and Barwon Water.