



Waterwatch & EstuaryWatch
Citizen science in
Victoria's waterways

Wimmera

Regional Report

2019-2020



Wimmera
Catchment Management
Authority



Environment,
Land, Water
and Planning



Victoria sustains a vibrant history of community-based environmental monitoring and citizen science programs, including the Waterwatch and EstuaryWatch programs. These programs are instrumental in informing waterway management decisions while strengthening community engagement and fostering environmental stewardship and advocacy. Catchment management authorities, water authorities, local government and other delivery partners play a crucial role in facilitating the programs.

Through the EstuaryWatch and Waterwatch programs, citizen scientists are supported and encouraged to become actively involved in local waterway monitoring and on-ground activities. Citizen scientists involved in the 2019-2020 programs contributed a total of **232,580** hours to care for our waterways, equivalent to 31,011 volunteer days. This contribution provides an economic value of the 2019-2020 volunteer effort of **\$9,707,889**. For more information, see the Waterwatch & EstuaryWatch Citizen science in Victoria's waterways Annual Achievements Report 2019-2020.

Aboriginal Acknowledgement:

EstuaryWatch and Waterwatch proudly acknowledge Victoria's Aboriginal community and their rich culture and pays respect to their Elders past, present and emerging. We acknowledge Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely. We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life and how this enriches us. We embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.

If you are interested in participating in citizen science in your region, please contact Wimmera CMA on (03) 5382 1544 or visit <http://wcma.vic.gov.au/>.

Regional Stats



100

Event Participants



1

Active Groups



10

Active Sites



7

Active Volunteers

Escaping the Classroom to Make A Difference

At Stawell Primary School, a new environment and sustainability program has initiated two citizen science opportunities for Year 5 students to experience real-life, hands-on learning activities.



Ebony Hall grabs a water sample. Credit WCMA

First, the River Detectives program provides students with equipment and learning materials to measure the water quality, habitat, and aquatic macroinvertebrates of a local waterway. An education initiative of Victorian CMAs, River Detectives supports teachers to connect young people to their local waterway.

Through the program, participating schools and teachers receive river health training, a water quality monitoring kit, and additional support from a local facilitator. Plus, the River Detectives website provides teaching resources and a host of educational activities designed to maximise student involvement and make participation easy for teachers.

Lead teacher Ms Toni Stewart said, “When we think about the devastating impacts of climate change, and the continued destruction of our natural environment, it can be overwhelming. Many of us are left wondering what we can do in an educational setting to make a difference. One fantastic way we can make meaningful change is through participation in citizen science programs.”

Second, the ClimateWatch in Parks program, an initiative of the Earthwatch Institute, facilitates students collecting valuable data on local plant and animal species. This data is interpreted by Earthwatch to monitor changes and understand the impacts of climate change on the plants and animals over time.

A ClimateWatch trail was already established at Venus Baths in Halls Gap; therefore, the school located their River

Detectives site at Venus Baths to collect a wider spread of comprehensive data from one monitoring site. When asked about the school’s motivation to participate in both citizen science programs, Ms Stewart highlighted the proven benefits of bringing young students into contact with nature and contributing important data to a greater cause.

“Connecting kids with positive experiences in nature leads to positive environmental behaviours, so we know we’re providing long-term benefits for the planet. The students are always enthusiastic about heading outdoors; they think they’re escaping the classroom, when in fact they’re growing a host of scientific and mathematical skills such as scientific methodology, ecology, freshwater science, as well as measurement and data,” she said.



Blake Hyslop prepares to measure reactive phosphorus. Credit WCMA

Twenty-five Years of Monitoring the Wimmera River: A Milestone Effort

The Jeparit Waterwatch group marked an impressive milestone this year, achieving 25 years of monthly water quality monitoring of more than six sites along the lower Wimmera River.

Established in 1995 by retired farmers, the group has seen many changes in the river's water quality including the Millennium Drought, 2011 floods and various environmental flows. Volunteer and former coordinator, Jeanie Clark recalls, "The group thought monitoring the Wimmera River stretch at Jeparit would be worth doing for their own knowledge, and the community, and so formed Jeparit Waterwatch. Since this time, the dedicated Jeparit Waterwatch volunteers have undertaken monthly monitoring from six to twelve sites between Antwerp to Lake Hindmarsh."

Jeanie has been involved from the beginning, supporting the interest of the group, originally led by Alan McKenzie (dec.) and enlisting the local primary school to participate, whilst supporting and encouraging quality water monitoring, educational activities and community advocacy. "If you want to know your local water place and how healthy it is, then Waterwatch is a great place to do some citizen science," she said.

Founding member, David Livingstone, lived on the banks of the Wimmera River all his life, and sadly passed away not long after his 25 year monitoring milestone.

A great source of first-hand information about the river, David had been the voice of the Jeparit Waterwatch for many years, sharing his knowledge with the community and as the group's spokesman.

David Livingstone will be sadly missed by the Jeparit Waterwatch group, and by the broader Wimmera community. We thank him for his immense contribution.

Frank Pitt, another local farmer, now in his 80's, echoed the motivation to know about the salinity in the community, "The most important test we do is salinity," Frank says. He began as a volunteer with Waterwatch during the Millennium Drought, in 2002. Puzzled by why the sheep in his paddock beside the river were refusing to drink from it and losing condition, he soon learnt about the salinity levels being too high for sheep to safely drink.

Another member, who started with Jeparit Waterwatch in 2000 at the age of five, is Jeanie's son, Michael Clark. After many years involved in Waterwatch activities, the ideal training ground for his future career, Michael left the Wimmera to complete honours in ecotoxicology at RMIT University.



2019: 24 years of Waterwatch

"Over a decade, I gained practical water quality monitoring experience which set me in good stead for the career path I later chose, now as an environmental scientist with RMIT University's Aquatic Environmental Stress research group," explained Michael.

"It's inspiring and a privilege to be part of this Jeparit community for over a quarter century and to share this way of caring for the Wimmera River and its environment."

Jeanie Clark,
Jeparit Waterwatch.

"Waterwatch is an excellent citizen science program to learn the basics of water quality monitoring and the nature of the local environment," Michael said. The group's quarter-century of dedication and achievements calls for a celebration; however, the coronavirus pandemic halted these festivities. At the time of the milestone anniversary, environmental volunteering activities across the state changed to protect volunteers and the broader community from COVID-19. However, dedicated volunteer, Martin Stone, navigated the COVID-19 restrictions and performed solo tasks, so Jeparit Waterwatch could reach their 25 years of continuous monthly monitoring.



2015: 20 years of Waterwatch