

Waterbug Report: Merri Creek upstream of St. Georges Rd Bridge, Nth Fitzroy



Site Code: ME_YMR112

DATE: 8/1/2023

TIME: 2.00pm

Surveyors: Trevor Hausler, Irene Baker, Nicole Lowe, and 6 other community members
other community members

Watchwatch Portal: https://www.vic.waterwatch.org.au/site_visit/2333702


Site Description











The sampling site on the Merri Creek consists of an area 50 metres north of the St. Georges Rd bridge and stretching back under the bridge to about 30m south of it. North of the bridge the creek bottom consists many of large basalt boulders and the sampling is along the edge vegetation although, at times of low stream flow much of this is about the water level.




Immediately under the bridge and south of it is an area of riffles consisting of a mixture of large and small basalt rocks along with mixed rubble of human origin. Further south the stream contains a mixture of in stream and edge vegetation and some woody debris.

Samples are taken from all of these macro habitats.

The weather was sunny and there had been rain in the preceding week. The creek appeared milky. Approx. 1 km upstream from the sampling site there was an inflow from a drain (at Albert st) that was causing a dramatic change in the turbidity of the water from clear (<9NTU) to 60 NTU. This had only just happened so it had probably not yet affected the macroinvertebrates. The level was normal with continuous flow in the channel and instream habitats connected.

Name	Common Name	Quantity	SIGNAL 2 Score	Photos
Phylum Mollusca				
Family Hyridae	Freshwater Mussels	1	5	

Family Corbiculidae	Pea shells	10	5	 Image: wikipedia.org
Family Physidae (<i>Physa acuta</i>)	European Pond Snail	5	2	 Image: A. Piesse
Phylum Arthropoda Class Crustacea				
Family Hymenosomatidae	False Spider Crabs	15	3	 Image: K. Perrie
Class Insecta				
Order Diptera				
Family Simuliidae	Blackfly Larvae	3	5	 Image: macroinvertebrates.org
Family Chironomidae	Bloodworms	5	4	
Family Chironomidae	Chironomids other than Bloodworms	4	4	
Order Hemiptera				
Family Noctonecidae Genus <i>Enithares</i>	Robust Backswimmers	1	3	
Family Corixidae Genus <i>Sigara</i>	Water Treaders	2	4	 Image: National Waterbug Blitz
Family Corixidae Genus <i>Micronecta</i>	Little Brindle Boatmen	6	3	
Order Odonata				
Family Coenagrionidae	Damselfly Nymphs	1	1	

Order Tricoptera				
Family Hydropsychidae	Net-spinning Caddis	40	6	
Family Leptoceridae Genus <i>Triplecides</i>	Stick Caddis	2	3	
Family Leptoceridae Genus <i>Notalina</i>	Headbanger Caddis	12	6	 Image: National Waterbug Blitz
	Totals	156		
		Weighted ALT SIGNAL Score	4.10	
		Meaning		Moderate Pollution- mainly caused by stormwater inflows.

***Explanatory notes on SIGNAL Score (from the [Waterwatch Victoria](#) website)**

Each aquatic macro invertebrate is given an ALT (Agreed Level Taxonomy) SIGNAL2 score depending on their sensitivity to pollutants. SIGNAL stands for Stream Invertebrate Grade Number - Average Level. In 1994, a new version of this method, known as SIGNAL2, was developed and is available on the [Federal Government website](#). By knowing the SIGNAL2 grade for every family, the SIGNAL2 score of a site, and therefore its health, can be assessed. For example a site that has abundant diversity and many sensitive aquatic invertebrates will have a high ALT SIGNAL2 score.

To manually calculate an ALT SIGNAL2 score for a site:

Step 1. Collect, sort and identify the creatures found at the site

Step 2. Calculate the sum of the individual ALT SIGNAL2 grades

Step 3. Divide the sum of the individual ALT SIGNAL2 grades by the number of different invertebrates collected to calculate the ALT SIGNAL2 score.

The Weighted SIGNAL Score shown above has been calculated in the Waterwatch Portal and takes into account a number of factors

A guide for interpreting water health according to the SIGNAL score of a site is given in this table

SIGNAL score ratings

Higher than 6	Healthy habitat
Between 5 and 6	Mild pollution

Between 4 and 5

Moderate pollution

Less than 4

Severe pollution

These ratings were originally developed for very "normal" freshwater streams and rivers, and do not work as well for wetlands or lakes.

This report has been added to the [Waterwatch database](#).

Trevor Hausler
Waterwatch Officer (MCMC)