

Report compiled: 16/4/2023

Waterbug Report for Blind Creek, Wantirna South



**MERRI CREEK**



**MANAGEMENT  
COMMITTEE**

Incorporated Association  
No A0018144A

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ABN 13025599242

**Waterwatch Site code and name:**

ME\_DBC072 Blind Creek, opp Lake Knox Sanctuary, Wantirna South

Date sampled: 28/3/23 at 10.00am

Surveyors: Trevor Hausler and Tania Struzina

**Description**

The weather was cloudy and there had been approx. 12mm of rain in the previous 24 hours. The creek did not appear to be seriously impacted by the rainfall and had an approx. depth of 50cm at the sampling point and was slow flowing. The colour appeared slightly milky. The main instream habitat was edge vegetation with a rocky bottom and some instream woody debris. The site was also well shaded by overhanging vegetation.

The sampling site was immediately upstream of works being undertaken to “daylight” the creek and therefore is likely to give an indication of the invertebrate fauna that will be found once the drain section has been daylighted and the instream and riparian vegetation has been established.

Blind Creek is in an urban area and is impacted by stormwater. This badly affects the aquatic macro-invertebrate population and it cannot be expected that the daylighting of the drain will lead to the presence of stormwater intolerant species. While sampling, the presence of Mosquito Fish (*Gambusia holbrooki*) was noted. (There were 6 counted in the sample). These are an introduced pest species that have a detrimental affect on the aquatic macro-invertebrate population, especially in late summer and autumn when their numbers can become very high. They are also known to eat frog’s eggs and tadpoles so will affect amphibian colonisation of the stream.

The sampling revealed a limited range of 10 taxa, and these tended to be dominated by pollution tolerant species and the weighted ALT SIGNAL score was 2.71. This showed that the creek is badly impacted by stormwater pollution which is to be expected in an urban waterway.

**Merri Creek Management Committee Inc. comprises:**

City of Darebin      City of Hume      Shire of Mitchell      City of Merri-bek      City of Whittlesea      City of Yarra  
Friends of Merri Creek Inc      Wallan Environment Group Inc.

**Table 1. List of Taxa and SIGNAL scores for ME DBC072**

| <b>Name</b>                                | <b>Common Name</b>                 | <b>Quantity</b> | <b>SIGNAL 2 Score</b> | <b>Photo</b>                                                                          |
|--------------------------------------------|------------------------------------|-----------------|-----------------------|---------------------------------------------------------------------------------------|
| Class Hirudinea                            | Leeches                            | 1               | 2                     |    |
| Class Oligochaeta                          | Aquatic worms                      | 3               | 2                     |    |
| Class Turbellaria                          | Flatworms                          | 12              | 1                     |    |
| <b>Order Diptera</b>                       | <b>True Flies</b>                  |                 |                       |                                                                                       |
| Family Chironomidae                        | Bloodworms                         | 5               | 4                     |    |
| <b>Order Hemiptera</b>                     | <b>True Bugs</b>                   |                 |                       |                                                                                       |
| Family Velidae                             | Water treaders                     | 1               | 1                     |   |
| <b>Order Odonata</b>                       | <b>Dragonflies and Damselflies</b> |                 |                       |                                                                                       |
| Family Megapodagrionidae                   | Fan tailed Damselflies             | 1               | 5                     |  |
| Family Coenagrionidae                      | Damselflies                        | 5               | 1                     |  |
| Suborder Epiproctophora (various families) | Spider Mudeye                      | 12              | 4                     |  |
| Family Aeshnidae                           | Couta Mudeyes                      | 8               | 4                     |  |

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|                          |                      |    |                           |                                                                                     |
|--------------------------|----------------------|----|---------------------------|-------------------------------------------------------------------------------------|
| <b>Order Trichoptera</b> | <b>Caddies Flies</b> |    |                           |                                                                                     |
| Family Hydroptilidae     | Micro Caddis         | 2  | 4                         |  |
|                          | <b>TOTALS</b>        | 50 |                           |                                                                                     |
|                          |                      |    | Weighted ALT SIGNAL score | 2.71*                                                                               |
|                          |                      |    | Meaning                   | Severe Pollution                                                                    |

**\*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 the method used for assessing water quality by WaterWatch Victoria, including [Melbourne Water](#). Knowing the SIGNAL2 grade for each 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 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.

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. An adaptation for wetlands can be found here within the [Environmental leader guide to running an ALT macroinvertebrate survey](#) available here: <https://www.melbournewater.com.au/education/citizen-science/waterbug-monitoring>

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

Trevor Hausler  
Waterwatch Officer (MCMC)

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