

# Join us to be part of the National Waterbug Blitz



## *Our waterways under the magnifying glass*

The National Waterbug Blitz is Australia's first nationwide, citizen science, waterway monitoring event. In spring each year, Australians are encouraged to discover how healthy their local waterways and wetlands are, simply by exploring and identifying what waterbugs live in them.

### **What are waterbugs?**

Waterbugs (or freshwater macroinvertebrates) are small invertebrates that live in freshwater. These include juvenile stages of many insects like dragonflies, damselflies, mayflies, caddisflies, water beetles, and more. Each type of waterbug has a certain sensitivity to pollution or water quality changes in their waterway. So, the type and number of bugs found in a waterway, can tell you how healthy it is.

### **When?**

The National Waterbug Blitz is a season-long event to be held in Spring (September to November) each year, which commenced in 2018. Keep an eye on the website for more information and events at [www.waterbugblitz.org.au](http://www.waterbugblitz.org.au)

### **Who can be involved?**

Anyone! The National Waterbug Blitz aims to get community groups, schools, farmers, fishers and local residents to help collect information on local waterway biodiversity through waterbug surveys. Download The Waterbug App and view our 'How To' videos available online in our website under [Resources](#) to learn how to complete a Waterbug Blitz.

### **How long will it take to be involved?**

Participants can get involved in the National Waterbug Blitz in one of three ways:

| <b>Blitz</b>            | <b>Level of difficulty</b> | <b>What does it involve?</b>  | <b>Time commitment</b>            |
|-------------------------|----------------------------|---|-----------------------------------|
| <b>Mayfly Muster</b>    | EASY                       | Have a quick look under rocks and on wood in the waterway ... can you see any mayflies?   | Approx. 20 minutes                |
| <b>River Detectives</b> | QUICK                      | Identify the obvious waterbugs such as dragonflies and water striders and use these to assess your site.<br><i>This level is for kids and for some groups who identify to Order level only.</i> | Approx. 1-2 hours                 |
| <b>ALT Survey</b>       | DETAILED                   | Complete a full assessment of your site identifying as many animals as you can with a magnifying glass, using the Agreed Level Taxonomy (ALT) method.   | A few hours, or make a day of it! |

This waterbug survey method has been specially designed for both citizen scientists and professional scientists to use to collect good quality data. It uses clear, every-day language and explanations for identifying waterbugs without the need for microscopes. The data can also be compared with other data sets e.g. SIGNAL and AUSRIVAS. See more information at [www.thewaterbug.net/ALT](http://www.thewaterbug.net/ALT)

River Detectives and the Waterbug Survey both use a *live pick method* where participants collect the waterbugs with a net and identifying them in trays, then returning them alive to the waterway.

### **What training or resources will be available through the National Waterbug Blitz?**

All of the information and resources participants need to participate in the Blitz will be available:

- on the website: [www.waterbugblitz.org.au](http://www.waterbugblitz.org.au)
- on The Waterbug App: [available free from Google Play and the App Store.](#)

The App can be used to identify waterbugs, or participants can use more conventional taxonomic keys available from the resources page on the website.

There will be number of Waterbug Blitz training workshops on offer for National Waterbug Blitz volunteers and local support partners. See the [event calendar](#) on our website for training workshops that might be in your local area. They'll also be advertised via our social media channels on Facebook, Instagram and Twitter @waterbugblitz Contact us if you can help us fund/organize one near you.

### **Waterbugs and STEM (Science, Technology, Engineering & Mathematics)?**

By participating in the National Waterbug Blitz, students can be introduced to several areas of biological science:

- Ecology - learning about how waterbugs interact with other organisms and their surrounding environment
- Taxonomy - identification of waterbugs; and
- Environmental monitoring - discovering how the presence of each waterbug type helps tell us about the health of waterway. Repeated data collected over time can be useful to show changes in aquatic health.

### **How will the data be used?**

Participants will collect data on site conditions and waterbugs present (type and count) at their local waterway. These data will be uploaded via [The Waterbug App](#)), along with photos of the site and bugs found. Waterbug scientists will then verify/confirm each data set, then make it available for analyses and reporting.

The data:

1. Will contribute to a national river health assessment via waterbug surveys housed on a national database.
2. Will be used to provide snapshot reports on waterway health across our country and can be used by scientists to guide more detailed surveys.
3. Will be used by community groups to assess the effectiveness of on-ground works, for example, fish habitat improvement projects, where the waterbug data can be used to assess ecological change - if the bug communities improve there is a greater likelihood of fish populations improving also.

### **What equipment is needed to do a Waterbug Survey?**

Participants will need Waterbug Kits, which include nets, trays, teaspoons & pipettes. Kits are available for purchase from [TheWaterbugShop.com.au](#) along with books, magnifying tools and more to help with your Waterbug Blitz.

Waterbug Kits may also be available for loan from certain local organisations including councils, Natural Resource Management (NRM) bodies or Non-Government Organisations (NGOs). If your local organisation is willing to loan and/or host waterbug survey equipment for participants to borrow during the National Waterbug Blitz, please let us know via [info@waterbugblitz.org.au](mailto:info@waterbugblitz.org.au)

### **How can your organisation help to support National Waterbug Blitz in your area?**

We are inviting local Councils, NRM/Catchment Management bodies, and NGOs to get involved by participating, and/or supporting local schools and community members to participate in the National Waterbug Blitz, through:

- Helping spread the word about this event through your newsletters, website and social media;
- Housing of Waterbug Blitz Kits for local communities to borrow and use during Blitz month, or sponsoring Waterbug Blitz Kits or extra training sessions with our waterbug scientists to help with greater participation and data collection in your local area;
- Providing in-kind staff time to support your local community participate in the Waterbug Blitz in your region.

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