

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 aquatic macroinvertebrates) are small invertebrates that live in freshwater. These can 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 month-long event to be held in October each year, commencing in 2018. Keep an eye on the upcoming website for more information at www.waterbugblitz.org.au

Who can be involved?

Anyone! The National Waterbug Blitz aims to get community groups, schools, farmers and local residents to help collect information on local waterway biodiversity through waterbug surveys. Waterbug experts will also be on hand to help out with training, confirming waterbug identification, and support for the National Waterbug Blitz.

How long will it take to be involved?

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

Blitz	Level of difficulty	What does it involve?	Time commitment
Mayfly Muster	EASY	Have a quick look under rocks and on wood in the waterway ... can you see any mayflies?	Approx. 20 minutes
Bug Detectives	QUICK	Identify the obvious waterbugs such as dragonflies and water striders and use these to assess your site.	Approx. 1-2 hours
ALT Survey	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!

The ALT 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

Bug Detectives and the ALT 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 river.

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
- on The Waterbug App: available free from Google Play and the App Store from September 2018.

The App will help with training, and provide identification guides, that will also be available for download from the Waterbug Blitz website (to be launched April 2018). Participants will be able to use a mobile device (e.g. smart phone) to submit pictures of bugs they can't recognise for our waterbug scientists to identify.

There will be number of Waterbug Blitz training workshops on offer for National Waterbug Blitz volunteers and local support partners. More details to come!

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](#) (currently being upgraded), along with photos of the 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. These data will be used to provide snapshot reports on waterway health across our country and can be used by scientists to guide more detailed surveys.
2. 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 (nets, trays, teaspoons & pipettes), which will be available for loan from certain local organisations including councils, Natural Resource Management (NRM) bodies or Non-Government Organisations (NGOs) - details will be available online. However, if your local organisation cannot supply these, you can use a hand net (available from fishing stores), large sorting tray, pipette and teaspoon.

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 Ingrid Garland at ingrid@envirocommconnections.com.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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