

# The Waterbug bug

## How to attract and retain citizen scientists

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### The Waterbug Census:

This citizen science project trains volunteers to collect, identify and record data on waterbugs (or aquatic macroinvertebrates).



### Attracting volunteers:

The techniques required for data collection require a reasonable commitment by volunteers to training.

Social media, newsletters, emails to networks and events are used to attract interested volunteers to training days.

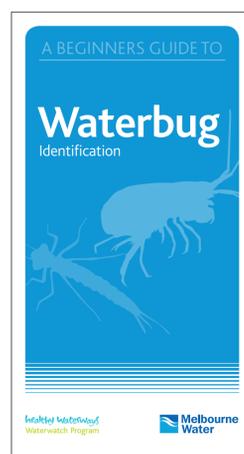
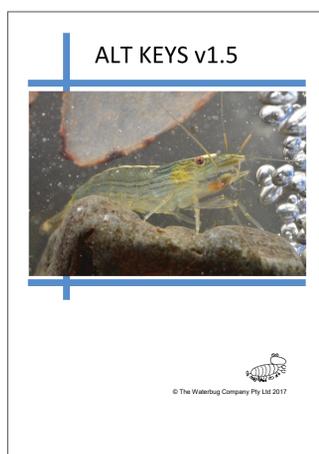
### Training methodology:

Data collection is completed in the field, using Agreed Level Taxonomy (ALT) techniques. Training is tiered, so volunteers can build their skills and confidence over time.



### 1. Introductory training

Undertaken with the program coordinator and other volunteers to learn safe collection techniques and how to identify waterbugs.



### 2. Seasonal sampling

Volunteers join a coordinator and other volunteers to practice collection techniques and identification.



### 3. Advanced training

Ran by a freshwater ecologist in pristine waterway locations. Training enables volunteers to increase their identification skills by finding less common waterbugs.

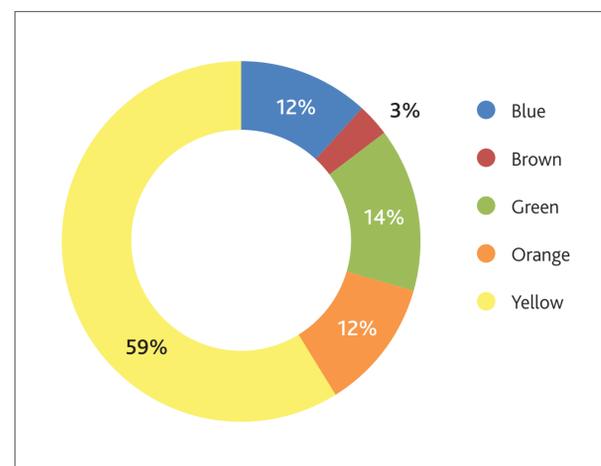
### Training resources:

Volunteers are provided with training materials including a training guide, ALT keys and waterbug flip guide.

Online videos and resources provide further information for volunteers.

### Accreditation and retention:

Collection techniques and correct identification is assessed through an accreditation process. Volunteers can progress from novice (yellow) up to expert (black).



26% of volunteers have been accredited to Blue and Green level meaning they are able to identify 90%-100% of waterbugs accurately.

Over the last four years, the program has involved over 100 volunteers with data collected from 154 Melbourne waterway sites.

Data collected by citizen scientists is publicly available via the Atlas of Living Australia and is incorporated into Melbourne Water's environmental database to contribute to ongoing research.