



# Waterbug Survey



Waterbugs (or aquatic 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. Repeated data collected over time may be useful to show changes in aquatic health. Use this form to keep a record of your Waterbug App submissions (overleaf is a handy resource of bug types and their sensitivity grade).

**FREE Download**  
**'The Waterbug App'**



**Site Name:** \_\_\_\_\_ **Site Code:** \_\_\_\_\_

**Recorder/s:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Time:** \_\_\_\_\_

Survey Level	
Mayfly (~20min)	<input type="checkbox"/>
Quick (~1-2hrs)	<input type="checkbox"/>
Detailed (~2-6hrs)	<input type="checkbox"/>

Waterbody type	
River	<input type="checkbox"/>
Wetland	<input type="checkbox"/>
Lake/Dam	<input type="checkbox"/>

Nearby feature/s:

Record percentage of each habitat type below (must total 100% before continuing)					
Leaf Packs		%	Rocks		%
Aquatic Plants		%	Gravel		%
Wood		%	Sand/Silt		%
Edge Plants		%	Open Water		%

Definitions of scoring					
<b>SIGNAL score</b> Average of total grade numbers (Overleaf – common waterbugs with grade numbers)					
<b>Weighted SIGNAL score</b> Total grade x weight factor / total of weight factor (more specimens = higher weight factor)					
No. of Species	1-2	3-5	6-10	11-20	>20
Weight factor	1	2	3	4	5
<b>No. of different taxa</b> Count of taxa group of any rank, such as a species, family or class					

**SIGNAL score** \_\_\_\_\_

**Weighted SIGNAL score** \_\_\_\_\_

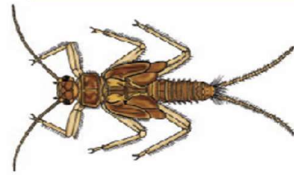
**No. of different taxa** \_\_\_\_\_

Quick interpretation:

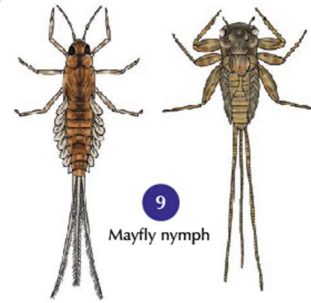
Notes:

# Common Waterbugs & grades

## Very Sensitive Bugs - 10,9



10  
Stonefly nymph



9  
Mayfly nymph

## Sensitive Bugs - 8,7,6



7  
Riffle beetle and larva



6  
Water mite



8  
Caddisfly larva



8  
Alderfly larva



## Tolerant Bugs - 5,4,3



3  
Freshwater shrimp



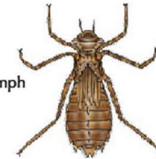
3  
Freshwater sandhopper



3  
Midge pupa and larva



4  
Dragonfly nymph



3  
Fly pupa and larva



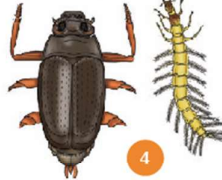
3  
Water scorpion



3  
Needlebug



3  
Freshwater crayfish/yabby



4  
Whirligig beetle and larva



4  
Water strider



3  
Damselfly nymph



5  
Beetle larvae



3  
Freshwater mussel

## Very Tolerant Bugs - 2,1



1  
Mosquito pupa and larva



2  
Freshwater slater



2  
Water treader

2  
Diving beetle and larva



2  
Freshwater worm



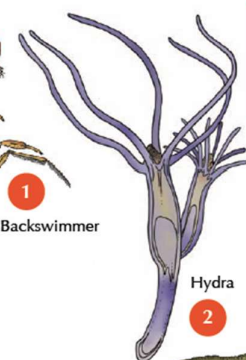
1  
Bloodworm



2  
Flatworm



1  
Backswimmer



2  
Hydra



2  
Waterboatman (above and below)



1  
Leech



1  
Freshwater snail

Illustrations: Christine Rockley