

Student Name(s): \_\_\_\_\_

Site (location): \_\_\_\_\_

Date: \_\_\_\_\_

# Water Quality Testing RESULTS (Lower Primary)

*Last update: February 2015*

**Seqwater Learning Experience**

## Water Bug Detectives & Turbidity



### Biological Indicators – Water Bug Detectives

Taking a closer look at the organisms that live in the water can give a valuable indication of its health. Macroinvertebrates or water bugs can provide us with an indication of the water pollution levels in a waterway. They and are classified into four groups to help us do this:

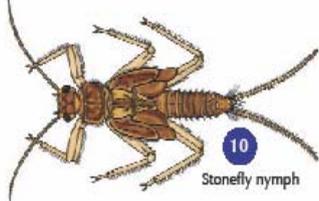
- Very sensitive (can only survive in the cleanest water)
- Sensitive
- Tolerant
- Very tolerant (can tolerate a dirtier and more unhealthy environment)

Different species of macroinvertebrates react differently to environmental stressors like pollution, turbidity (how dirty the water is) and habitat changes. By searching for and counting the amount and type of water bug found at a given site we can create a picture of the environmental conditions of that body of water.

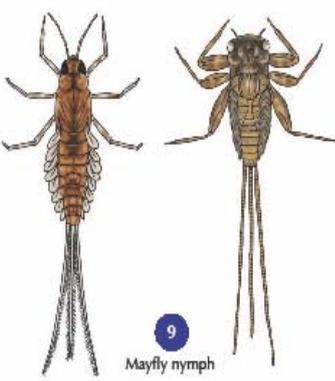
## Circle the water bugs that you found today



### Very Sensitive Bugs - 10,9

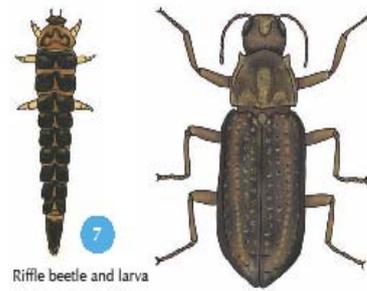


10  
Stonefly nymph



9  
Mayfly nymph

### Sensitive Bugs - 8,7,6



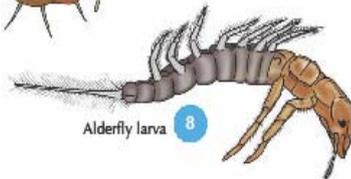
7  
Riffle beetle and larva



6  
Water mite



8  
Caddisfly larva



8  
Alderfly larva

**WATER BUG DETECTIVE GUIDE**




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Illustrations: Christine Roddley

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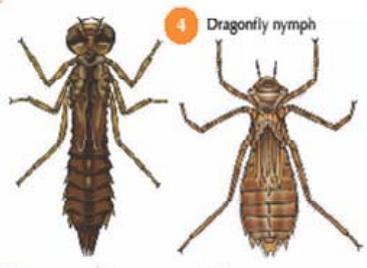
### Tolerant Bugs - 5,4,3



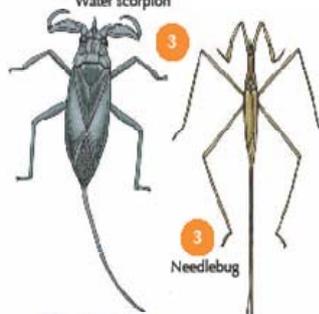
3  
Freshwater sandhopper



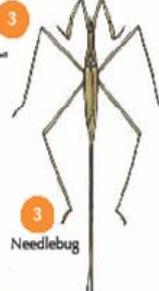
3  
Midge pupa and larva



4  
Dragonfly nymph



3  
Water scorpion



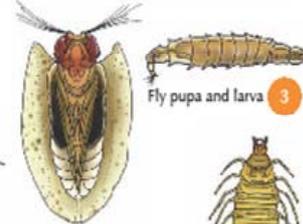
3  
Needlebug



3  
Freshwater crayfish/yabby



4  
Water strider



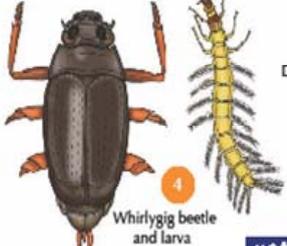
3  
Fly pupa and larva



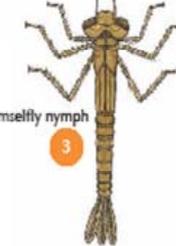
3  
Freshwater mussel



3  
Freshwater shrimp



4  
Whirlygig beetle and larva



3  
Damsel nymph



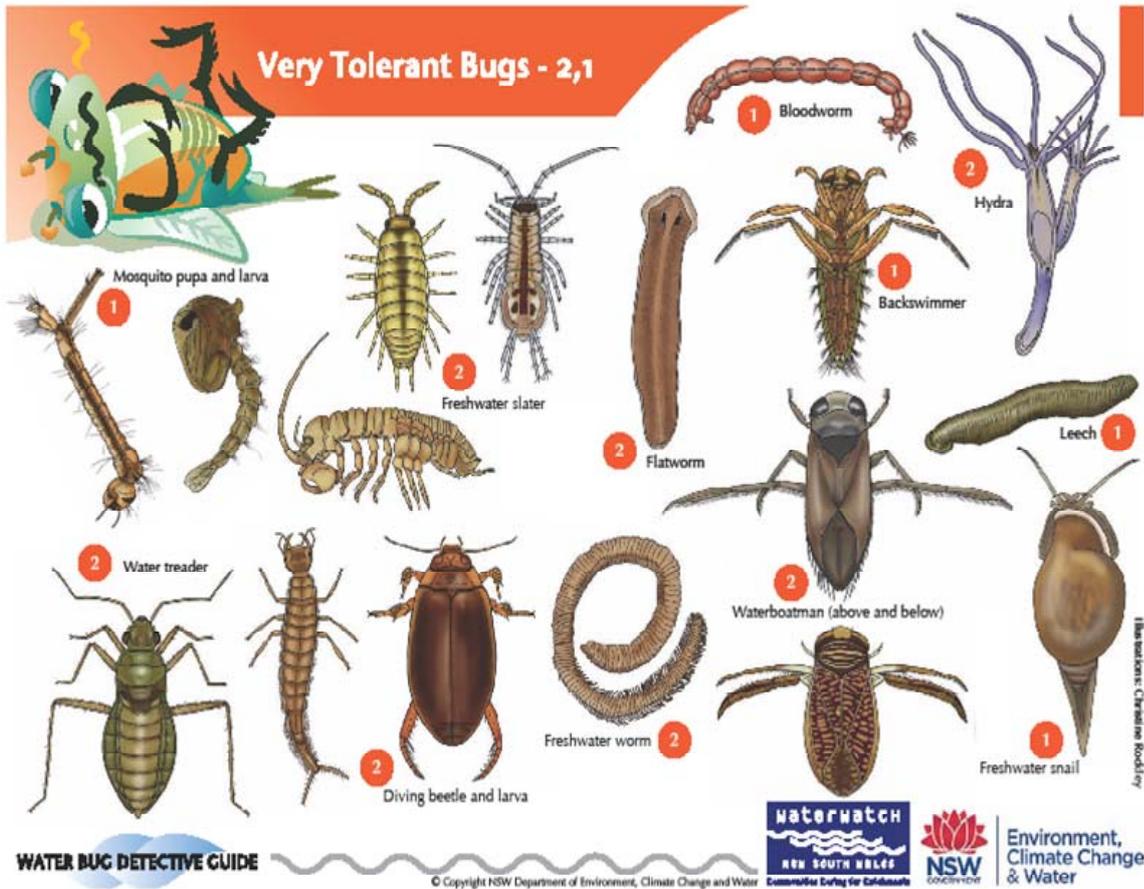
5  
Beetle larvae

**WATER BUG DETECTIVE GUIDE**




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## RESULTS – Water Bug Detectives

List the water bugs from each category that you found.

Category	How many types in each category?
<u>Very Sensitive:</u>	
<u>Sensitive:</u>	
<u>Tolerant:</u>	
<u>Very Tolerant:</u>	

## Turbidity

Turbidity is a measure of how clear the water is, or how much dirt is floating in the water.

How dirty is the water today?

Read the score on the side of the Turbidity Tube.

### RESULTS – Turbidity

\_\_\_\_\_ NTUs

(NTU stands for Nephelometric Turbidity Units)



**Overall Results** Complete this sentence and circle the answer.

Today, I searched for water bugs, and checked how much dirt is in the water. I think the water at \_\_\_\_\_ is...

**healthy.** I found lots of water bugs, of many types and some of them were very sensitive.

**okay.** I found a few water bugs, and some were sensitive.

**unhealthy.** I found only tolerant and very tolerant bugs, and not many types.

Today the water was... **clear** (0 to 5 NTUs).

**a little dirty** (5 to 50 NTUs).

**very dirty** (50 to 400 NTUs).