1 Million Turtles
COMMUNITY CONSERVATION PROGRAM

Term 3, Lesson 3

Macroinvertebrates

Photo credit: Dr. James Van Dyke

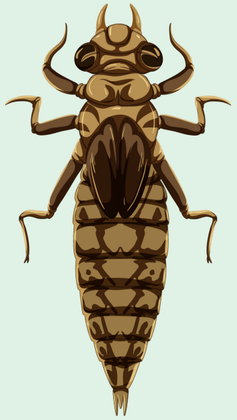
Learning Objectives:

1. Define a macroinvertebrate;
2. Describe how macroinvertebrates can be used to assess wetland health.

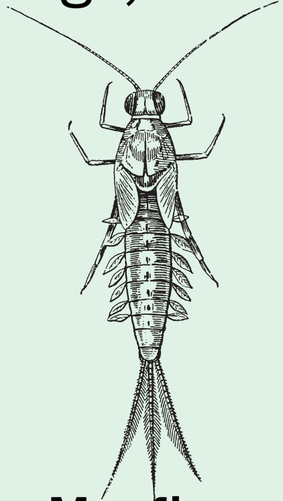
What are macroinvertebrates?

Water bugs (also known as macroinvertebrates) are small animals without a backbone that are large enough to see without a microscope.

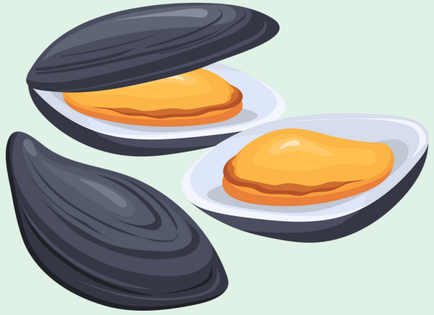
Water bugs spend all or part of their life in the water and are a source of food for fish, frogs, birds and freshwater turtles.



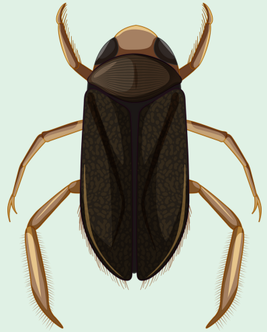
Dragonfly larvae



Mayfly larvae



Freshwater mussels



Water boatman

Yabby

What can water bugs tell us about the health of our water bodies?

The presence of different water bugs within a water body can serve as an indicator of its overall health. Water bugs exhibit diverse tolerances to alterations in the aquatic environment, such as changes in temperature, turbidity and pH.

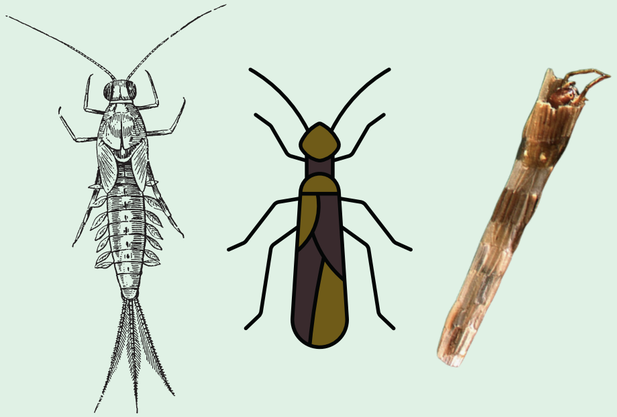
SIGNAL (Stream Invertebrate Grade Number - Average Level)

The SIGNAL (Stream Invertebrate Grade Number - Average Level) score associated with a water bug signifies the species' level of tolerance.

Tolerant water bugs

SIGNAL scores:

- A SIGNAL score of 6-10 indicates the species is very sensitive to changes in their environment.
- A SIGNAL score of 1-5 indicates the species is very tolerant of environmental change.

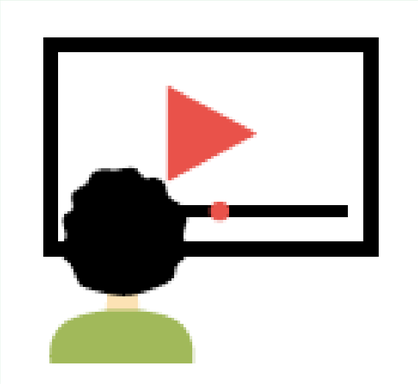


Sensitive Water bugs

Classroom Activities

Activity 1 - Video: Macroinvertebrates

https://www.youtube.com/watch?v=94YcjbYBchc



Classroom Activities

Activity 2 - Writing task

Write 1 - 2 paragraphs about macroinvertebrates.

- Explain in your paragraphs the importance of macroinvertebrates in assessing wetland health.
- Use scientific terms and concepts learned during the lesson and video.

Classroom Activities

Activity 3 -

Explore the National Waterbug Blitz website.

Watch the following videos:

- *Meet the Bugs*
- *How to Videos*