

TURTLES IN SCHOOLS

TERM 3 WORKBOOK

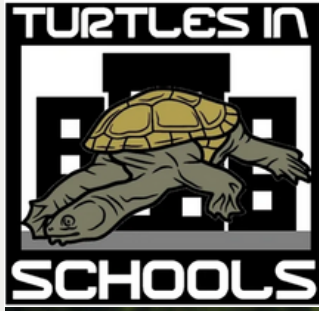


Photo credit: Bellinghen Riverwatch



1 Million Turtles

COMMUNITY CONSERVATION PROGRAM

A large, rounded rectangular box with a thick black border. Inside the box, there are three horizontal lines for writing. To the right of the box, there is a cartoon illustration of a yellow pencil with a pink eraser and a sharpened lead tip.



Photo credit: Dr James Van Dyke

TURTLES IN SCHOOLS

Produced by the
1 Million Turtles Community
Conservation Program
and funded by
The Foundation for National
Parks and Wildlife.

In the pages that follow, you will find a comprehensive set of lesson plans.

Our initiative is not just about imparting knowledge but fostering a deep connection between students and their natural environment and instilling a sense of responsibility and awareness of freshwater turtles and their conservation.

As we embark on this educational venture, we extend our gratitude to educators, students, and all those who champion the cause of conservation. The Turtles in Schools Program is not just a curriculum; it is a movement to inspire the next generation of environmental custodians.

Thank you,

**1 Million Turtles Community
Conservation Program**

UNIT LESSON

TERM THREE

ABUNDANCE AND SPECIES RICHNESS

- Learning Intentions
- Background
- Activities
- Curriculum Mapping



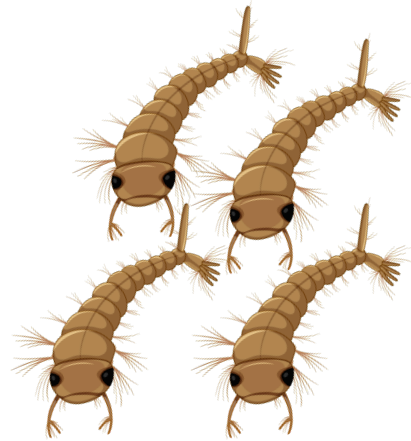
Learning Intentions

(1) Calculate the abundance and species richness of macroinvertebrates.

Background Information

Species Abundance:

- Species abundance refers to the number of individuals of a particular species present.
- For instance, in a wetland area, you might observe 20 frogs, 15 ducks, and 10 turtles. The abundance of frogs is 20, ducks is 15, and turtles is 10.



Species Richness:

- Species richness refers to the total number of different species present.
- If the wetland area is home to frogs, ducks, dragonflies, fish, turtles, and aquatic plants, then the species richness of the wetland is six (counting all the different species).



Classroom Activities

ACTIVITY 1

(1A) Calculate the abundance and species richness of macroinvertebrates sampled from the wetland (all sites combined).

Abundance - Calculate the total number of individuals per species, sampled from the wetland. You will have an abundance value for each species.

Species richness - Calculate the number of different species sampled from the wetland.



ACTIVITY 2

(2A) Determine the health of each site using the SIGNAL (Stream Invertebrate Grade Number - Average Level) score equation, from the Waterbug Blitz Education Resource.

Link to Waterbug Blitz Education Resource, page 40:

<https://www.peekdesigns.com.au/wp-content/uploads/2020/08/WaterbugBlitzEducationResource-FINAL.pdf>
(Copy and paste into browser).

(2B) Compare the score for your site to those of your classmates and interpret your findings.

Abundance and Species Richness

Abundance - Calculate the total number of individuals per species, sampled from the wetland.

Species richness - Calculate the number of different species sampled from the wetland.