1 Million Turtles
COMMUNITY CONSERVATION PROGRAM

Term 3, Lesson 2

Water Quality Testing

Learning Objectives:

1. Conduct water quality testing;
2. Collect water samples for eDNA analysis.

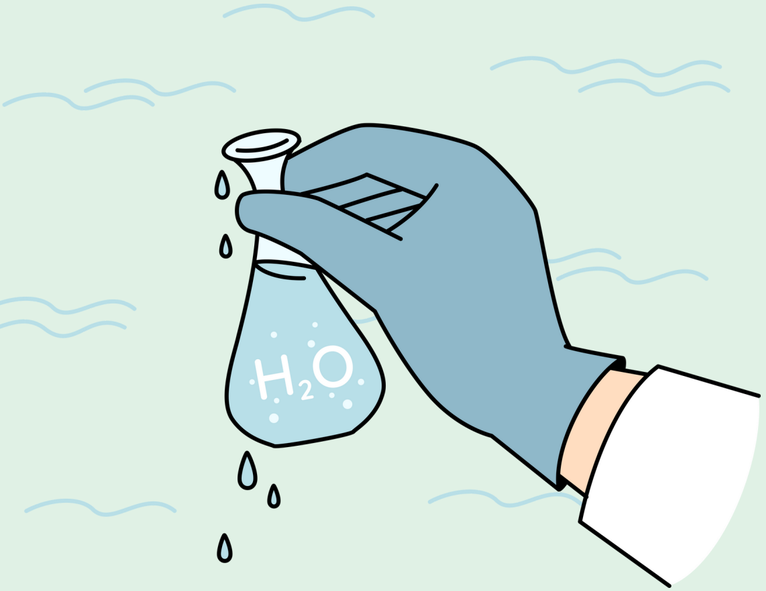
Photo credit: Dr. James Van Dyke

Environmental DNA (eDNA)

Environmental DNA (eDNA) refers to genetic material (DNA) shed by organisms into their environment. The analysis of eDNA allows for the detection of species presence without the need to directly observe or capture organisms.

Environmental DNA (eDNA) - Sampling

- Water samples are typically collected from different locations within the wetland using clean and sterile containers.
- In the lab, the water is then filtered to capture the suspended eDNA particles.
- DNA is extracted and subsequent laboratory processes are employed to amplify and sequence specific DNA regions.



Wetland Activities

Activity 1 - Water quality testing

- In groups, conduct water quality testing at pre-selected locations around your local wetland.

Wetland Activities

Activity 2 - eDNA sampling (optional)

- Collect a sample of water from the wetland to be sent for eDNA analysis.
- Wear gloves when collecting the sample to prevent cross-contamination.