



A hands on activity to learn about freshwater invertebrates and water quality by reviewing the biodiversity.



Topic

30 minutes

Nature connection and environmental engagement.

Fauna

Awareness, values & responsibility

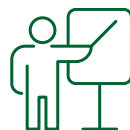


Participants

- know about the biodiversity in an area
- understand the links between biodiversity and ecosystem/water quality
- understand the need to practice sport responsibly in the area



Suitable for
outdoor sport instructors
and course participants



Practical sessions



Outdoor F2F
Indoor F2F
Digital



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Materials needed

- Freshwater invertebrate key
- Kick sampling kit
- Basin
- Optional: Hand lens



Preparation

Prepare the basin and sampling kits.

Activity instruction

The trainer demonstrates how to collect an invertebrate sample and provides a key to identify collected species. By using a key, participants can learn about the general water quality in the area by the composition and biodiversity of invertebrate species.

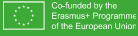
This exercise is more practical, it gives a short introduction to participants and then allows them to discover the biodiversity in the area.

Reflection and discussion

At the end of the exercise, use the composition of species to discern the probable water quality. Demonstrate that the availability of these species allows for the survival of many fish and bird species and their role in the food network.



FRESHWATER EXPEDITION



Co-funded by the Erasmus+ Programme of the European Union

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Discuss actions we can take to reduce damage caused to these invertebrates (pollution, food waste, disturbance of riverbeds etc.).

Could be done in a terrestrial environment analysing quadrates and flora or animals in the soil.

Create a quadrat using four sticks tied in a square. Bring participants to a terrestrial environment such as a grassy meadow. Randomly toss the quadrat into the area. Record all species of plants and animals found within the quadrat. Discuss the levels of biodiversity in the area.



Key words

#Fauna
#Biodiversity
#Watersports



Source

101 ways to teach LNT



Presented by







Mick Kane, Leave No Trace
Ireland

Materials

Example of vertebrae key (the CSSI protocol)

The CSSI protocol

The Citizen Science Stream Index (CSSI) is based on the presence or absence of six indicator taxa - three pollution-sensitive taxa ('good guys') and three pollution-tolerant taxa ('bad guys').


		Sample 1	Sample 2	Sample 3
Stonefly (+1)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flattened mayfly (+1)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Green caddisfly (+1)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Snail (-1)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leech (-1)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waterlouse (-1)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Sum of scores 1	Sum of scores 2	Sum of scores 3
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CSSI Scores can be a 'traffic light' for water quality

CSSI score -9 to -5
Poor

CSSI Score -4 to +4
Moderate

CSSI Score +5 to +9
Good



Total score for the 3 samples = CSSI Score