

Heritage & Habitat in Your Community



An educational project of Donegal County Council, Donegal Education Centre & The Heritage Council

Fieldtrip to a Shallow Stream

Basic Details

Names of Students or)		
Team :			
Date of Fieldtrip:			
Time Fieldtrip		Time Fieldtrip	
Started:		Finished:	
Name of Study Site:			
Location of Study Site	:		
Tide Condition:		Weather Condition:	

Exercise 1: Stream Velocity & Slope

Measure out 10m of the straightest part of the watercourse you can find. A student should stand at each end. The student at the upstream end places (not drops) a tennis ball onto the stream surface and releases it, raising a hand when it is released. The other student then starts a stopwatch and measures (in seconds) how long it takes for the ball to travel 10m. Dividing this by 10 gives the stream velocity in metres per second (m/s).

Using a clinometer (or metre sticks, rope and spirit level), measure the slope of the stream along the 10m used in the above exercise.

Stream velocity	m/s
Slope of site	0

Exercise 2: Water Quality Observations.

Take a jam jar (or other clear, sealable container) and half-fill with stream water. Make notes on its
colour, any floating materials in it or any living things you might see. Open the jar and smell - is there
any odour? Give it a good shake and look at the bubbles formed. Note if any remain and for how
long. Open and smell again.

Exercise 3: Water Invertebrates

Place around 3cm of stream water in your tray or bucket. Hold the net in the stream - facing upstream for a minute and remove the net from the water. Wash the net into your container and identify any small animals like macroinvertebrates such as insects you might have caught. Next, two students are to carry out kick-sampling of the stones on the stream bed for 30 seconds. Two more teams of two should repeat this, making three samples in all. Place all the findings in your containers. Using your field guide or identification sheet, try to identify as many different creatures as possible. Record your findings in the table below (Hint: for recording lots of any one thing, use vertical lines up to 4 with another line across to record 5, rather than numbers to record the count. Then add them all up at the end. e.g. ### ### | | = 13).

Macroinvertebrates found	Number found	

Exercise 4: Stream Bank Vegetation

The type of vegetation on the edges of a watercourse can be very important to the wellbeing of a stream. It can also be very different to the vegetation of the surrounding area. In the table below, record as many trees and plants as you can. Start upstream and work your way down.

Stream Bank Trees	Plants on Upper Stream Bank (above highest water levels)	Plants on Lower Stream Bank (at or close to water level)

Exercise 5: Birds & Mammals of the Stream

Streams are very important for birds - they provide water as well as a 'corridor' along which they can travel. Spend ten minutes just looking and listening for birds.

You may not be able to identify all of the birds you see but try and determine how many species you see. You can also take notes of the birds' description and look this up later. Are there more birds found in the trees than in other vegetation types? Look for bird droppings on rocks and bird tracks in soft muddy areas.

Otters feed widely up and down small streams. Look for their droppings (spraints) on larger rocks. Have a walk around your study area and see what you can find. Soft mud is a great place to see fox and badger prints as well as those of otter.

Record your findings below. Don't forget to add any findings to your map.

Birds we saw or heard (describe	
if you can't identify them)	
Mammal tracks or signs found	
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