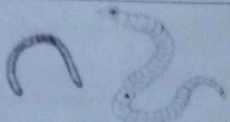
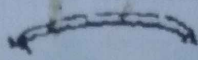

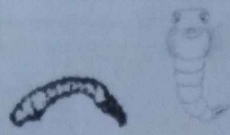

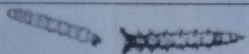
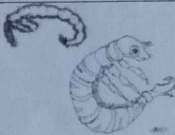


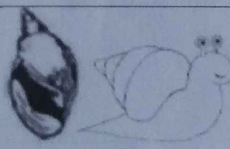

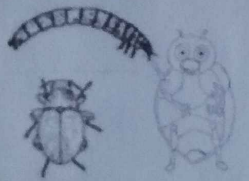
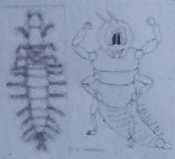
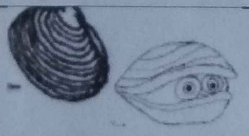

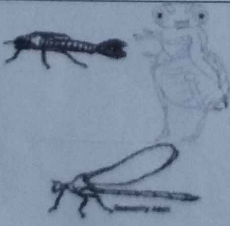


Voluntariado ambiental - Ficha de Campo - 1

		Quantos destes encontrastes?		Quantos destes encontrastes?
Minhocas de água (Oligochaeta)				
Larvas de sangue vermelho (Chironomidae)			Libelinhas (Zygoptera larvas)	 13 Big 21 small
Larvas de mosquito (Simuliidae)		4	Isópode	 0
Diptera (larvas)		4	Tricóptero (larvas)	 0
Sanguessuga (Hirudinea)		2	Efemeróptero (larvas)	 13
Caracóis		3	Crustáceos de água doce	 0
Escaravelho (Larvas e adultos)		2	Megalóptero (larvas)	 0
Bivalves de água doce		0	Plecóptera (larvas)	 7
Libélulas (Anisoptera larvas)		0	<p>Organização: <u>V.V.P</u></p> <p>Coordenador: <u>Astrid / Steven</u></p> <p>Ribeira: <u>Cercas</u></p> <p>Local / Concelho: <u>Monchique / Póvoa</u></p> <p>GPS Lat: N <u>37° 12.264</u> Long: W <u>8° 40.392</u></p> <p>Data: _____ Hora início/final: ____ / ____</p>	

Voluntariado Ambiental para a Água

Site description form



River CARRE Municipality Monchique

Sampling location (annexe map) Bridge) Passio Date: 21/5/17 Start time: 14:38

Name: SOMYA, CARVAL, VANESSA, ALEX, RFL Organization: UNIVERSITY OF PORTSMOUTH

Select and circle the weather:



For safety, do not work alone.

Choose a sampling location and at that point analyse the state of the river / stream for about 50 m upstream and about 50 m downstream. Observe carefully and carefully fill in this site description form.

1. Are there signs of human activity in the area around the water course? (within ± 50 m of the bank)

The left bank (LB) and the right bank (RB) are in the direction of the current (see the explanatory leaflet).

	RB	LB		RB	LB		RB	LB		RB	LB
Tourism			Agriculture			Forestry*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Buildings	<input checked="" type="checkbox"/>	
Golf			Grazing			Industry			Roads	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Camping			Livestock			WTW / WWTW			Other*		

*Describe what you observe (especially if there are eucalyptus trees): no eucalyptus trees

2. Are there buildings or other constructions in the watercourse or in the surrounding area? (within ± 50 m of each bank)

The left bank (LB) and the right bank (RB) are in the direction of the current (see the explanatory leaflet). When necessary also consider the channel (C) (see the explanatory leaflet).

	C		RB	LB		RB	LB		RB	LB
Dam		Wall/channel			Irrigation channel			Buildings	<input checked="" type="checkbox"/>	
Weir		Spring			Water mill			Roads	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Bridge or pontoon	<input checked="" type="checkbox"/>	Borehole/shallow well			Pipes			Other*		

*Describe what you observe:

Bridge over river. Road. Two lanes. + Abandoned semi collapsed building

3. Condition of the water

3.1) Flow (see figure in explanatory leaflet):

Without water (dry)	
No detectable flow	
Laminar flow (smooth)	
Turbulent flow	<input checked="" type="checkbox"/>

3.2) Odour of the water:

Odourless	<input checked="" type="checkbox"/>
Pleasant smell	<input checked="" type="checkbox"/>
Fishy or muddy smell	
Sewage smell	
Other*	

*Describe what you smell:

3.4) Presence of pollutants:

Foam	
Sewage	
Plastic, glass or metal materials	
Oil patches or slicks	
Other*	

*Describe what you observe: none

3.3) Turbidity:

Clear water (transparent)	<input checked="" type="checkbox"/>
Brownish water (some turbidity)	
Dark coloured water (very turbid)	
Other*	

*Describe what you observe:

3.5) Presence of nutrients/eutrophication

Clear water with aquatic plants	<input checked="" type="checkbox"/>
Green water with microalgae	
Very green water with microalgae	
Green to brown water with an unpleasant surface layer of algae.	
Other*	

* Describe what you observe

3.6) pH of the water (optional)

pH < 6	
pH > 6 & < 8	
pH > 8	<input checked="" type="checkbox"/>

Collect a sample of stream water in a beaker, dip pH indicator paper in the water. Compare the result with the scale on the packet. You may also measure other characteristics like water temperature, dissolved oxygen, conductivity and hardness.

P = 0.5 ppm
T = 18 C
O₂ = 12 mg/L
8.3 NO₃ = 2-5 ppm
N₂ = 0.07 ppm
Conduct = 189 μ S
Hardness = 50 ppm

17.28
 18.56
 21.05
 20.04
 avg 19.23
 3.50m

2.7m
 10.8.16
 cm

avg W = 3.1m
 avg D = 11.5cm
 X-section
 A = 0.36m

W = 3.1m
 D = 0.12m
 S = 19.22/10m

0.198 m/s

explanatory leaflet.

4. Condition of the river/stream

The left bank (LB) and the right bank (RB) are in the direction of the current (see the explanatory leaflet). When necessary also consider the channel (C) (see the explanatory leaflet).

4.1) Degree of artificialization:

	RB	LB
Natural water course	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Some signs of alteration	<input type="checkbox"/>	<input type="checkbox"/>
Altered water course	<input type="checkbox"/>	<input type="checkbox"/>
Other*	<input type="checkbox"/>	<input type="checkbox"/>

*Describe what you observe:

4.2) Bank profile:

	RB	LB
Vertical	<input type="checkbox"/>	<input type="checkbox"/>
Sloping (> 45°)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gentle	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mixed	<input type="checkbox"/>	<input type="checkbox"/>

4.3) Types of substrate in the channel and on the banks (see the explanatory leaflet):

	RB	C	LB		RB	C	LB
Bare rock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gravel or sand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Blocks (large rocks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Earth *(with vegetable matter)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Large stones	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Clay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stones or cobbles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Artificial (concrete, masonry, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Only complete for the banksides

4.4) Erosion and deposition (see the explanatory leaflet):

	RB	C*	LB
Erosion zones (bank cutting)			
Bankside being eroded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stabilized bank (bank already suffered erosion)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment deposition zones (banks)			
Banksides without vegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Banksides with vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* Only complete for banks in the streambed.

5. Vegetation on the banksides

The left bank (LB) and the right bank (RB) are in the direction of the current (see the explanatory leaflet). When necessary also consider the channel (C) (see the explanatory leaflet).

5.1) Presence of trees:

	RB	LB	5.2) Other observations:	Y/N
Continuous or closed tree cover	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Shading	<input checked="" type="checkbox"/>
Semi-continuous or spaced out tree cover	<input type="checkbox"/>	<input type="checkbox"/>	Exposed roots	<input checked="" type="checkbox"/>
Isolated trees	<input type="checkbox"/>	<input type="checkbox"/>	Submerged roots	<input checked="" type="checkbox"/>
Bushes	<input type="checkbox"/>	<input type="checkbox"/>	Fallen trees	<input checked="" type="checkbox"/>
Undergrowth	<input type="checkbox"/>	<input type="checkbox"/>	Large deposits of woody material	<input checked="" type="checkbox"/>

5.3) Invasive or exotic vegetation:

	RB	LB	5.4) Native vegetation:	RB	LB
Cane (<i>Arundo donax</i>)	<input type="checkbox"/>	<input type="checkbox"/>	Oleander (<i>Nerium oleander</i>)	<input type="checkbox"/>	<input type="checkbox"/>
Eucalyptus (<i>Eucalyptus spp.</i>)	<input type="checkbox"/>	<input type="checkbox"/>	Willow (<i>Salix alba</i>)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Acacias (<i>Acacia spp.</i>)	<input type="checkbox"/>	<input type="checkbox"/>	White poplar (<i>Populus alba</i>)	<input type="checkbox"/>	<input type="checkbox"/>
Hottentot-fig (<i>Carpobrotus edulis</i>)	<input type="checkbox"/>	<input type="checkbox"/>	Lesser bulrush (<i>Typha angustifolia</i>)	<input type="checkbox"/>	<input type="checkbox"/>
Castor-oil-plant (<i>Ricinus communis</i>)	<input type="checkbox"/>	<input type="checkbox"/>	Narrow-leaved ash (<i>Fraxinus angustifolia</i>)	<input type="checkbox"/>	<input type="checkbox"/>
Other*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tamarix (<i>Tamarix africana</i>)	<input type="checkbox"/>	<input type="checkbox"/>

*Describe your observations:

bonito

6. Fauna observed (see figures in the explanatory leaflet)

Mammals	<input type="checkbox"/>	Fish	<input type="checkbox"/>
Birds	<input type="checkbox"/>	Insects (including larvae)	<input checked="" type="checkbox"/>
Reptiles	<input type="checkbox"/>	Molluscs	<input type="checkbox"/>
Amphibians	<input checked="" type="checkbox"/>	Signs of animals (footprints, scat & other)	<input type="checkbox"/>

Try to identify the fauna observed.

Overall opinion of the river/stream (optional)

In your opinion the natural, environmental and ecological quality of the river is (circle one answer):

Bad

Poor

Reasonable

Good

Excellent

Suggest activities for improving the stream or other activities that you and your colleagues should carry out.

See the explanatory leaflet.