



The OPAL Soil and Earthworm Survey

Upload your results to the OPAL website

www.opalexplornature.org

or send recording sheets to:

Freepost RSCH-CKYJ-HYYC, OPAL, Centre for Environmental Policy, Imperial College London, London, SW7 2AZ

A Site characteristics

1. Date of survey _____

3. Who are you doing the Soil Survey with today? Primary school Secondary school Friends or family
 College / university Youth group Adult volunteer group Other

3. Do you think soil and earthworms are important? yes no

4. Record the location of your site (postcode / OS grid reference / GPS reading).

Further help is available on the OPAL website if you are unsure of the exact location.

5. Choose the best description of your sampling site. Please tick one.

Garden Parkland Playing field Wood or forest Heath or moorland
 Ploughed field Grassy verge Industrial site Open grassy field Other _____

6. What is the surrounding area like? urban suburban countryside

7. How far is the nearest road?

Less than 20 metres 20-100 metres More than 100 metres *Name of road* _____

8. Can you see any of the following signs of pollution? Tick all those that apply.

Storage tanks Rubbish Industrial chimneys Discharge pipes Foam on water surface Other

9. What is the weather like today?



10. How much of the ground in your sample square is covered in living plants (including grass)?

All bare earth Mostly bare earth Half earth, half plants Mostly covered with plants Totally covered with plants

B The soil pit and earthworms

Use the Earthworm Identification Guide to help.

11. How many worms did you find in the soil pit? Immatuers Adults

12. How long did it take the water to drain away from the soil pit? Less than 3 minutes? _____ minutes _____ seconds
 More than 3 minutes

13. How many deep burrowing worms did you find? Immatuers Adults

C Soil properties

14. How many plant roots are there in the soil you have removed? No roots A few roots Lots of roots

15. Can you see any objects in the soil that do not look like they should naturally be there? Select all that apply.

Construction material Metal Glass Cut wood Other None

16. Push the pointed end of a pencil or pen into the soil surface. How hard was it to push into the soil? Easy Difficult Very difficult

17. Take a handful of soil in the palm of your hand and squeeze it. How moist is the soil? (Don't use any soil with mustard water on it).

Dry soil Moist soil Wet soil

18. What was the pH of the soil?

4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0













19. Record the texture of the soil. See the flow chart on page 9 of the Soil Survey booklet.

a Sand b Loamy sand c Sandy loam d Silty loam e Loam f Sandy clay loam
 g Silty clay loam h Clay loam i Sandy clay j Silty clay k Clay

20. Smell the soil ribbon. Does the soil have:

A sour, rotting or chemical smell? No smell? An earthy, fresh, sweet smell?

21. What colour is the soil ribbon? Choose the nearest colour match:

 a  b  c  d  e  f  g  h  i  j  k  l

22. Soil fizz test. Does the soil fizz? yes no

D Earthworms

Use the Earthworm Identification Guide and the OPAL magnifier to identify and record the species of each adult earthworm found. Also record the length and colour of each adult earthworm. Record your results in the table.

	Where was the worm found?			Length (cm)	Colour (if species unknown)																	
	Soil from pit	Mustard water	Other		Red	Stripy	Pale	Green														
Adult earthworms (one line per worm)																						

↑
Write length here

E Additional search for earthworms in other habitats

If you still have more time available, search for earthworms in habitats within 5 metres of your pit. Record your results in the table above.

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