



What's Happening in... Ecology & Conservation

The importance of soil

Lancaster Environment Centre hosts a wealth of research into soils, spanning a range of disciplines - but many people don't realise just how important soil is.

This year is the International Year of Soils but you might be wondering why soils are so important. Soils actually play an extremely important role in our lives. Almost all of the food we eat is grown in soil, either directly like potatoes, or indirectly like meat, where the animals eat food that is grown in soil. Soil also stores approximately two thirds of all the water on the planet and almost three times as much carbon as that stored in the atmosphere. Furthermore, soils are teeming with life. There are more living organisms in a teaspoon of soil than there are people on the planet, making soils really important for biodiversity. Much of the life in the soil is too small to see and we use special techniques including DNA extraction to investigate these organisms.

Despite being so important, soils around the world are under serious threat. Soils take a very long time to form so we should think about them as a non-renewable resource. If we damage our soil it cannot easily be replaced. There are many threats to soil ranging from erosion and contamination through to climate change. In the Plant and Soil Ecology group at Lancaster University, we are doing a lot of research into how different types of global environmental change are impacting on soils. We have researchers who are focussed on climate change and how the future climate might impact on the variety of life in the soil and the important roles these organisms perform, such as decomposition and nutrient cycling; air pollution and how this can impact soils and in turn the plants that are able to grow in them; and how invasive species, plants that are introduced by man to areas they wouldn't normally grow in, can change soils too.

If you are interested in the environment and want to learn more about soil why not join our free online course:

Soils: Introducing the World Beneath Our Feet

The course is open to everyone and starts on the 6th July for four weeks. Register here: <http://futurelearn.com/courses/soils>



Soil erosion in Spain.



Investigating the impact of air pollution on grassland soils in England.

For more details about the reports above or about Ecology, Conservation and Environmental Biology courses on offer at Lancaster University please contact the Biology Admissions Staff,

Lancaster Environment Centre, Lancaster University, LA1 4YQ, UK

Email: lec.ug@lancaster.ac.uk or see our website: www.lancaster.ac.uk/lec