Heather Ashton – Hydro-Meteorological Forecast Scientist at the Met Office

What inspired your interest in meteorology?

As a child, I was always interested in physical geography and the weather. Having lived in Brighton, I remember clearly the 1987 storm that hit South East England and caused huge amounts of damage to houses and felled hundreds of trees. I can still remember being very scared of the wind whistling through the windows that night! Extreme weather such as this gave me the motivation to learn more.

My later interests in physical geography, maths and physics led me to a degree in Environmental Science which had a strong meteorological aspect. My degree provided me with a wide range of knowledge in geology, soil science and meteorology. My interests were drawn to the complex interactions of water and energy between the land surface and the atmosphere. My PhD explored this in detail, looking at trying to improve our understanding of these relationships and our ability to model them. My PhD focussed on assessing the ability of a land surface model to simulate soil moisture and water/heat fluxes during the summertime. It is the feedbacks associated with these fluxes that have been shown to contribute to extreme heat wave events like that experienced in 2003.

What job do you do now?

I am now working as a foundation scientist for the Met Office at their Joint Centre for Hydro-Meteorological Research in Wallingford. I am responsible for supporting the development of the Met Office's models and post processing systems for forecasting rainfall and soil state. I support the research and development into operational short range forecasting (nowcasting) systems for precipitation. I also work on developing and testing improvements to the operational systems for diagnosing soil moisture and subsurface runoff within the NWP post-processing system.

Qualifications

PhD in meteorology jointly at Reading University and the Centre for Ecology and Hydrology (CEH), Wallingford.

BSc in Environmental Science of the Earth and Atmosphere from the University of Reading

A-levels in Maths, Physics, Geography, Science in the Environment and General Studies