

UNIVERSITY LEARNING & TEACHING AWARD HOLDERS PROFILE

Ray Goulder, Biological Sciences, Faculty of Science

Ray Goulder's aims include the promotion of student learning in Biological Sciences beyond the conventional confines of lecture theatre, laboratory, library and internet. Furthermore he believes that students should be encouraged to take ownership and control of their own learning through open-ended tasks and student-managed group work to achieve flexible learning outcomes that are not closely defined by a fixed knowledge base. He wishes to enable students to become aware that biology is essentially a field subject, with many cryptic societal and ethical relevancies, as well as its more obvious concern with environment, conservation and wildlife.

Support from the Innovations in Student Learning fund has enabled him, with Graham Scott, to develop an innovative module that allows Level 5 students, through group work and student-managed learning, to study the interactions and interdependence between people, plants and animals, and their environment. For this the students have used local and regional community resources: collections of live animals and living plants, nature reserves and museums. See (www.hull.ac.uk/biosci/CommunityResources.pdf).

He has also, with Graham Scott, been exploring how students may be prepared for the task of designing and carrying out open-ended group project work in the field. This has led to the development of methods that allow Level 6 students to acquire quickly the skills needed for plant identification, recording and phyto-sociological analysis (Goulder & Scott, *Journal of Biological Education* 42, 26-29, 2006) and that enable pre-Certificate students to recognize and record the diversity of plants in a forest environment (Goulder & Scott, submitted to *Bioscience Education e-Journal*). He has further encouraged the development of open-ended learning by enabling Level 6 students to find their own way to understanding, through their analysis of large professionally-collected data sets, how both human influences and natural processes control river water quality (Goulder, *Bioscience Education e-Journal* www.bioscience.heacademy.ac.uk/journal/vol12/beej-12-c3.pdf).

Keywords: student-managed learning, open-ended learning, biology