

Centre for Sustainable Water Management

Summer Seminars

2012

All are welcome, including undergraduate/postgraduate students

Monday 11th June, 2012

'An integrated approach to modelling future climate change impacts

Dr. Peter Falloon, Met Office Hadley Centre

2pm - 3pm, Fylde lecture theatre 1

Abstract:

Future climate change is projected to have major impacts on important sectors in many different regions of the world. To date, the majority of impact assessments have taken a sector-specific approach - for example, studying future impacts on water supply or agricultural production in isolation. In reality, there are strong linkages between impacts in different sectors in a changing climate.

For example, water systems may be affected by climate change both directly and indirectly, and these changes may in turn impact agriculture. Direct climate impacts on water systems may include changes to the location, amounts, timing and intensity of precipitation, or to patterns of snowmelt, evaporation and runoff entering rivers, and changes in groundwater recharge rates. Indirect impacts may occur as a result of changes to water management practices, and other responses to a changing climate.

As another example, if higher summer temperatures increase domestic and industrial water demands, this may increase abstraction of freshwater from rivers and groundwater, reducing river flows and increasing competition for water with agriculture and other users. Conversely, some adaptive water management practices may benefit agriculture.

This means that an integrated approach needs to be taken to fully understand future the impacts of climate change on society. This talk will highlight why an integrated approach to climate impacts is needed, and illustrate the work of the Met Office Hadley Centre's Climate Impacts Team towards this aim.

Thursday 21st June, 2012

‘Chronosequence Biogeochemistry’

Prof. Leo Condon, Faculty of Agriculture and Life Sciences, Lincoln University,
New Zealand

4 pm - 5pm, Training Rooms 1 & 2, Gordon Manley Building, LEC

Abstract:

Biogeochemistry is a systems science that considers the chemical, physical and biological processes and reactions that govern the composition of the natural environment and the cycles of matter that transport chemical components in time and space. Ecosystem development sequences provide ideal templates for the study of biogeochemical processes. In particular, chronosequences formed on aggrading coastal dunes and glacial moraines have proven to be valuable for investigation of soil-plant interactions as they relate to nutrient availability and acquisition. This seminar will describe recent research carried out on New Zealand chronosequences which examined the role of soil microbial biomass in nutrient dynamics and factors that influence soil microbial diversity during ecosystem development.