



ses

school of environmental sciences

The Research Seminar Presentation by

Megan Cowan

will be held on

Tuesday November 3, 2015

At 10:35 am

ALEXANDER HALL 337

Title: Identifying errors in the eddy covariance method: Closing the energy budget

Abstract

Eddy covariance (EC) is a micrometeorological technique used to quantify the flux of energy and gases between the earth's surface and the atmosphere. Data collected through EC is used across many disciplines such as ecological research (e.g. looking at whether an ecosystem is a carbon sink or source), landfill management (e.g. detecting methane leaks), and hydrological research (e.g. measuring water losses through evapotranspiration). It is, therefore important that EC data is correct as to not compromise the accuracy of these studies. As it stands EC measurements underestimate available energy, leaving the energy budget unbalanced. This project will develop a mathematical model for identifying areas of error within the EC method that may be applied to various conditions. Accurate EC data for sensible and latent heat fluxes along with soil heat flux, energy storage terms, and net radiation will be collected. This research will help identify and correct errors in the EC method. Improved accuracy in EC data will translate into more reliable studies in the broad range of fields that apply EC data.

Everyone is welcome to attend

(This is a Research Proposal presentation by students in ENVS*6900)