

FORFLUX

Biogeochemistry of Irish forests

PROJECT TEAM

Prof. E.P. Farrell, University College Dublin*
 Prof. Chris Müller, University College Dublin
 Prof. Julian Aherne, Trent University, Canada
 Dr Pat Neville, Coillte

* Address correspondence to:
 ted.farrell@ucd.ie

COMPLETION DATE

November 2010

OBJECTIVES

- To quantify major nutrient pools and fluxes at Irish forest monitoring plots.
- To develop tools to support the assessment of sustainable forest management.

Sub-objectives are:

- To quantify atmospheric ammonia concentrations at long-term monitoring plots;
- To analyse the trends in long-term records of rainfall, throughfall and soil water chemistry at forest monitoring plots;
- To model soil water percolation at forest monitoring plots;
- To estimate nutrient (nitrogen,) concentrations in Irish forests;
- To assess weathering rates (and release of base cations (calcium, magnesium, potassium and sodium) for forest soils.

PROGRESS

The project commenced in December 2007 and is at the initiation stage. Several meetings of the project team, including sub-contractors, have been held.

ACTIVITIES PLANNED

- Establishment of ammonia monitoring stations; SO₂ and NO_x monitors may also be included.
- Development of forest database and time-series analysis.
- Collection of data for the modelling of soil water percolation.
- Collection of data for the determination of nutrient pools.
- Preliminary work on the development of input-output budgets.