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**Scoil na
Matamaitice agus na Staitisticí UCD**

An Coláiste Ollscoile, Baile Átha Cliath
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Statistics and Actuarial Science Seminar

**Dr Jon Yearsley, (School of Biology and Environmental
Science, UCD)**

will speak on

**Inferring ecologically recent migration rates from multilocus
genotype data: one use of a mixture model**

Thu 15th January 2009 at 3:00PM

Location: Statistics Seminar Room- Library building

Dispersal is a mixing process which mixes individuals between local populations. It is important in many areas of ecology, but often difficult to directly observe. We have been looking at the use of individual genotype data for inferring rates of recent dispersal between pairs of populations. We have been concentrating upon using Bayesian mixture models as a novel approach to analysing this kind of data. I'll briefly describe why dispersal is important, the problems of inferring dispersal, the advantages of using genotype data over, say, mark-recapture data, and some of the current approaches that use genotype data. I'll then describe our approach, its relationship with other mixing problems, and its performance on simulated data of greater white-toothed shrew populations. The model performance suggests new avenues of research in estimating selection within the genome and estimation of dispersal kernel parameters.

This talk is part of the **Statistics and Actuarial Science** series. For more, see
<https://maths.ucd.ie/seminars>