<u>Understanding & Implementing Ecological Models:</u> Bayesian analyses from beginnings to hierarchical complexity

Would you like to understand statistical models?

Ever wondered what all the fuss is about with Bayesian analyses?

Do you want to be in the front line of research analysis, but are not really sure how to begin?

This 2-week course organised by the Doctoral Research Schools at SLU will show you the simplicity, power and applicability of Bayesian modelling for your research, through intuitive examples of how statistical models are built and simple explanations using probability, that researchers at all levels can understand.

<u>Prior to the course</u> students will learn about the basics of Bayesian thinking and the components of Bayes theorem by watching pre-recorded lectures

<u>The first week of the course will be interactive and focus on understanding</u> probability, how models are constructed and coded, and initial implementation of standard linear models using Bayesian methods in R. This will be done on zoom and face-to-face

<u>The second week</u> will focus on creating and running Bayesian models of increasing complexity, while learning about general modelling principles that are directly applicable to many questions studied in ecology and the life sciences.



Thomas Bayes knew how much fun

Bayesian analyses could be

Course credits: the course is worth 5 ECTS points and priority will be given to PhD students

Teachers: Matt Low & Malin Aronsson (Dept. Ecology SLU) will teach the course. They have many years experience in teaching the R course and this Bayesian modelling course, and will look after you ☺

When: The main course is planned for 8 - 19 April 2024

Where: The course will be run at the akademihotellet in Uppsala, with additional online material and an option to participate remotely for those who can't physically attend (details from the course leader)

Prerequisites: You will need to be familiar with the programming language R. If you do not use R then you will need to do additional work in R prior to the course (**proficiency in R before the course is mandatory**).

To register or if you have questions contact: matt.low@slu.se

NOTE that places are limited on this course and they fill quickly!