

## Workshop Plan/Overview

### Monday – Day I (Theory)

<b>Time</b>	<b>Title</b>	<b>Brief Description</b>
10.00-11.00	Registration	
11.00-11.15	Introduction	Short introduction of presenters, overview of the workshop, topics covered, handouts etc
11.15-12.30	Case Studies I	Introduction of case studies and the statistical models for ecological data.
12.30-1.30	Lunch	
1.30-3.00	Introduction to Bayesian Methods	Main ideas of Bayesian inference
3.00-3.30	Tea and coffee	
3.30-5.00	Introduction to Markov chain Monte Carlo	Concepts and ideas of MCMC

### Tuesday – Day II (WinBUGS)

<b>Time</b>	<b>Title</b>	<b>Brief Description</b>
9.00-10.30	Introduction to WinBUGS	Introduction and demonstration
10.30-11.00	Tea and coffee	
11.00-12.30	Tutorial in WinBUGS	Worked examples
12.30-1.30	Lunch	
1.30-3.00	Practical 1 – WinBUGS	Practical computer session
3.00-3.30	Tea and coffee	
3.30-5.00	Bayesian inference and MCMC II	More advanced MCMC topics

Wednesday – Day III (R)

<b>Time</b>	<b>Title</b>	<b>Brief Description</b>
9.00-10.30	Introduction to coding MCMC algorithms in R	Tutorial of computer package R
10.30-11.00	Tea and coffee	
11.00-12.30	Practical II – R	Practical 2 – using R.
12.30-1.30	Lunch	
1.30-3.00	Case Studies II	Further examples, motivating models and data to be considered in advanced sessions
3.00-3.30	Tea and coffee	
3.30-5.00	Advanced Bayesian Methods I	Missing data: random effects models, covariates models, mixed-effects models, state-space models.

Thursday – Day IV (Advanced Topics)

<b>Time</b>	<b>Title</b>	<b>Brief Description</b>
9.00-10.30	Advanced Bayesian Methods II	Model selection including RJMCMC.
10.30-11.00	Tea and coffee	
11.00-12.30	Practical III (WinBUGS and R)	Computer practical including advanced topics.
12.30-1.30	Lunch	
1.30-3.00	Further Applications	Further ecological examples not explicitly covered in workshop, but using the same underlying ideas/methods.