



# Spatial Simulation Modelling for Animal and Public Health

Dr Sam Beckett

**March 10-14, 2008**

**Australian National University (ANU), Canberra**

Spatial simulation modelling is a powerful tool for studying the epidemiology of diseases and the effectiveness of control strategies. It is particularly valuable for emerging and exotic diseases, whose behaviour under local conditions may be unknown. Spatial simulation modelling can be applied to diseases that rely on direct or indirect contact, airborne spread or vectors; as well as to food-borne diseases.

This course will teach you how to build sophisticated models quickly and easily within the environment of a Geographical Information System, or GIS. This innovative approach has been used to study foot-and-mouth disease, avian influenza, pandemic (human) influenza and other diseases.

## Who should attend?

The course is aimed at both animal and public health epidemiologists and researchers. It includes an introduction to the MapBasic development environment. Prior programming or modelling experience is not required, but some familiarity with GIS will be helpful.

## Course outline

The course will be held over five days. During this period participants will work progressively toward building their own spatial simulation model. Each day will include tutorials and practical sessions, beginning with simple concepts and working toward the tools and techniques used to construct a simulation model. Learning materials will be provided in advance of the course, and will include a series of preparatory exercises. Participants will be given a month following the course in which to refine and complete their model – mentoring will be available throughout this period.

## Registration and further information

The course will be held at University House, ANU. Participants will need to bring a laptop running MapInfo version 8 or above. Short-term evaluation licences can be arranged. You will also need MapBasic, which can be downloaded without charge from the MapInfo website.

The cost of the course is \$3,500 (GST excl). This includes teaching materials, as well as lunch, tea and coffee on each of the 5 days. To register for the course, or to enquire about future courses and group discounts, please contact Sam Beckett at email:

[Beckett@Broadleaf.com.au](mailto:Beckett@Broadleaf.com.au) or mob: 0416 09 2041.

**Sam Beckett** is a consultant epidemiologist and Associate Director of Broadleaf Capital International. He has worked with the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) and the US Department of Agriculture on spatial simulation models and related projects.

Sam is currently working in collaboration with DAFF, the University of Melbourne and Curtin University of Technology to develop a multi-modelling environment for urban influenza. This work is funded by the Australian Biosecurity Cooperative Research Centre for Emerging Infectious Diseases. Sam maintains a part-time teaching role at the University of Sydney, and was the Head Examiner (Membership) for the Epidemiology Chapter of the Australian College of Veterinary Scientists.



BROADLEAF CAPITAL INTERNATIONAL PTY LTD

[www.broadleaf.com.au](http://www.broadleaf.com.au)

