



What are mathematical models for in biology?

NVG PHD WORKSHOP <http://www.gedragsbiologie.nl>

Wednesday 24 November 2010, 10.00 - 17.30

Kontakt der Kontinenten, Soesterberg (preceding the annual NVG meeting).

NB These meetings are being held for the first time this year at Kontakt der Kontinenten, Soesterberg; see <http://www.kontaktderkontinenten.nl>

The annual NVG PhD Workshop will take place in 2010 at Soesterberg. **The goal of these workshops is to facilitate contact and discussion among PhD students in behavioural biology.** Normally there are about 20 PhD students and this year 3 senior researchers, all of whom will be present throughout the day.

The workshop will consist of three main parts:

1) **Dr Tom van Dooren** of the National Centre for Biodiversity Naturalis, Leiden will be the keynote speaker, and talk about ‘**What are mathematical models for in biology?**’. Tom says: *“Why should a behavioural biologist still bother about mathematical modelling? If our goal were the discovery of new phenomena by data mining, would we still need mathematical models? Isn’t being able to use a statistical software package enough? Can any mathematical model be fitted to data? Do we need any analytical results at all or are results from simulations sufficient? If we know that a model is a little bit wrong, can we still use it and robustify its conclusions?”*

I want to illustrate several points relevant to these issues with (i) evolutionary models for adaptive diversification, and (ii) generalized mixed linear models for egg size and egg number variation between females and their mates.

WARNING: some results will be quite scary.”

2) A series of talks by research students about their work plans (10 minutes talk + 20 minutes discussion). All of the students (including those who are not presenting a talk) + the senior researchers are present and contribute to the discussion. Although not all the students present their work, the discussions typically range across a whole series of general issues related to research (the importance of the research question, the approach chosen, the design of behavioural experiments, data analysis, etc). Starting PhD students (in the first or second year of their PhD research) are particularly encouraged to offer a presentation.

3) Small-group discussion work about the highs and lows of behavioural research. This is intended as a light-hearted opportunity to exchange tips about PhD research and get to know some of the other PhD students better.

Keynote speaker: **Dr Tom van Dooren**

On: **What are mathematical models for in biology?**

Workshop language: **English**

Participants: **PhD students**

Enrol: E-mail Martijn Egas [C.J.M.Egas@uva.nl] **by Wednesday of this week** (17th November), stating whether you wish to offer a talk (and if you do, giving the title, and which year of your PhD you are in)

Costs: **€70**, for the whole day, including lunch, coffee and tea.

Senior researchers present in 2010:-

Dr Tom van Dooren, National Centre for Biodiversity Naturalis, Leiden

Prof. dr. Theo Bakker, University of Bonn, Germany

Dr Kate Lessells, Netherlands Institute of Ecology (NIOO) (Workshop organizer)

The PhD workshop and the annual meeting of the NVG are sponsored by The Netherlands Organisation for Scientific Research (NWO), Division of Earth and Life Sciences (ALW).

