

## NCSB/NIOO-KNAW Workshop on Ecology and Systems Biology

Nederlands Instituut voor Ecologie (KNAW-NIOO), Wageningen, Droevendaalsesteeg 10,  
6708 PB Wageningen

May 18, 2011

9:30 Welcome and coffee

10:00-10:10 Louise Vet (NIOO-KNAW; [L.Vet@nioo.knaw.nl](mailto:L.Vet@nioo.knaw.nl)): Introduction

10:10-12:30 10 mins. “flash talks”.

Introduce your work (5 mins.), then answer the following questions:

- 1) What aspects of your work connect with the “other field”;
- 2) What input do you want from the “other field”?

10:10-10:20 Wim van der Putten (NIOO; [w.vanderputten@nioo.knaw.nl](mailto:w.vanderputten@nioo.knaw.nl)). Systems Biology: the dream of a systems ecologist

10:20-10:30 Albert de Graaf (NCSB-TIFN/TNO Zeist; [albert.degraaf@tno.nl](mailto:albert.degraaf@tno.nl)) and Marvin Steijaert (NCSB-TIFN/TNO Zeist; [marvin.steijaert@tno.nl](mailto:marvin.steijaert@tno.nl)): Metabolic flux analysis in bacterial consortia using stable isotope labeling

10:30-10:40 Bas Teusink (NCSB-NISB/VU; [bas.teusink@falw.vu.nl](mailto:bas.teusink@falw.vu.nl)): Constraint-based metabolic modelling of bacterial communities

10:40-10:50 Frank Bruggeman (NCSB-NISB; [frank.bruggeman@sysbio.nl](mailto:frank.bruggeman@sysbio.nl)): Genome scale modeling of metabolic cooperation in microbial communities

10:50-11:00 Gerard Muijzer (TU Delft; [G.Muijzer@tudelft.nl](mailto:G.Muijzer@tudelft.nl)): Systems Biology of Microbial Communities

11:00-11:10 Jaap Molenaar (NCSB-CBSG/WUR; [jaap.molenaar@wur.nl](mailto:jaap.molenaar@wur.nl)): Systems Biology and Plant Adaptation at WUR

11:10-11:20 Oscar Kuipers (RUG; [o.p.kuipers@rug.nl](mailto:o.p.kuipers@rug.nl)): Possibilities for systems biology of microbe-host interaction

11:20-11:30 Patsy Haccou (Leiden University; [p.haccou@luc.leidenuniv.nl](mailto:p.haccou@luc.leidenuniv.nl)): Bacterial strategies in changing environments

11:30-11:40 Roeland Merks (NCSB-NISB/CWI; [merks@cw.nl](mailto:merks@cw.nl)): Cellular ecology in multicellular systems

11:40-11:50 Wolf Mooij (NIOO; [W.Mooij@nioo.knaw.nl](mailto:W.Mooij@nioo.knaw.nl)): Modelling shallow lake ecosystems

**11:50-12:00** Vitor Martins dos Santos (NCSB-TIFN/WUR; [vitor.martinsdossantos@wur.nl](mailto:vitor.martinsdossantos@wur.nl)):  
Systems modeling of microbial communities in the environment and the gut

**12:00-12:10** Bob Kooi (VU; [kooi@falw.vu.nl](mailto:kooi@falw.vu.nl)). Applications of Bifurcation Analysis in Ecology and Systems Biology

**Unable to come to workshop today, but interested in follow-up:**

- Charlotte Hemelrijk (RUG; [c.k.Hemelrijk@rug.nl](mailto:c.k.Hemelrijk@rug.nl)) - Self-organised Social Systems
- Marten Scheffer (WUR; [marten.scheffer@wur.nl](mailto:marten.scheffer@wur.nl)): If you have an opportunity to change your topic of study, do it

**12:30-13:30** Lunch

**13:30-14:30** Plenary panel/round table discussion - identify overlaps and differences.

**14:30-15:30** Topical round table discussions. Proposed topics:

1. Microbial ecosystems (mixed communities as a system)
2. Large scale data-analysis
3. Systems biology tools in ecology
4. Ecological theory in development and tumor biology

**15:30-16:00** Reports/summaries by discussion moderators.

**16:00-16:30** Roel van Driel (NCSB/UvA; [r.vandriel@uva.nl](mailto:r.vandriel@uva.nl)) - Wrap-up and next steps: Lorentz workshop, joint proposals)