



Symposium: Experimental Evolution, fundamental and applied

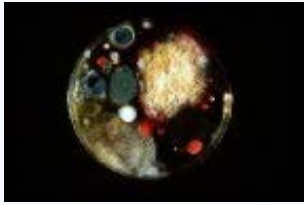
April 2, 2004

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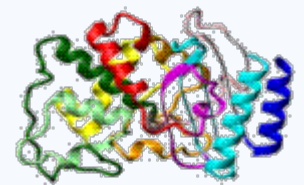
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Since a long time evolution has been recognized as a central concept in the life sciences. "Nothing in biology makes sense except in the light of evolution" (Dobzhansky). This is perhaps most visible in ecology, which can be seen as evolution on a very short time scale. Recently, evolutionary biology has received powerful impulses from mainly two important developments. First, molecular genetic methodology has advanced to a stage that large-scale DNA sequencing and genomic analysis has become practical, and second, laboratory systems using micro-organisms have been developed to study evolution by the direct observation and manipulation of its process. The latter approach has become known as experimental evolution. This new field has become very successful in demonstrating basic evolutionary and ecological principles and in rigorous testing of evolutionary hypotheses, in often elegantly simple experiments. Fundamental results have been obtained for example regarding the repeatability of evolution, the stability of biodiversity, the role of sexual recombination, and the stability of cooperation. Other results have proven valuable for more practical problems, such as the treatment of infectious diseases and the engineering of enzymes used in industry.



The symposium provides a broad overview of the role of this novel and powerful approach, both in the fundamental study of ecology and evolution and in its applications in industry and medicine. The speakers include some of the leading figures in this rapidly expanding field, including Prof. Richard Lenski (Michigan State University) and Prof. Bruce Levin (Emory University) who were among its very pioneers.



Organisation

Organisation:

[Dr. Arjan de Visser](#), and [Prof. Rolf Hoekstra](#),
[Laboratory of Genetics](#), Wageningen University, The Netherlands.

Advice and overview:

[Prof. Hans de Kroon](#), [Experimental Plant Ecology](#), University of Nijmegen, The Netherlands.

Logistics: [Marieke Bootsma](#), [Netherlands Institute of Ecology](#).

Web design: [Johan van de Koppel](#), [Netherlands Institute of Ecology](#).

For practical questions:

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Location of the Experimental Evolution Symposium

Date: April 2, 2004

Venue: WICC, Wageningen The Netherlands

Admission, including lunch: € 15,= (Students & PhDs: € 10,=, Necov members € 2,= reduction)

Starting time: 10.00 hrs.

Registration: [Click to open Registration form](#)

[Address and route](#) to the Wageningen International Conference Centre (WICC).

Programme

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| 10.00-10.30 | Registration and coffee |
| 10.30-11.15 | Richard Lenski (Michigan State University, East Lansing, USA) : Phenotypic and genomic evolution in a 20,000-generation experiment with <i>E. coli</i>. |
| 11.15-11.45 | Arjan de Visser (Wageningen University, Wageningen, NL): Limits of adaptation in asexual populations. |
| 11.45-12.15 | Gregory Velicer (Max Planck Institute for Developmental Biology, Tübingen, DE): Evolution of novel cooperation in a social bacterium. |
| 12.15-13.45 | Lunch |
| 13.45-14.15 | John van de Oost (Wageningen University, Wageningen, NL): Protein engineering by random mutagenesis. |
| 14.15-14.45 | Angus Buckling (University of Bath, Bath, UK): Cooperation, spite and virulence of pathogenic bacteria. |
| 14.45-15.15 | Tea |
| 15:15-15:45 | Tadeus Kawecki (University of Fribourg, Fribourg, DE): Evolutionary biology of learning ability: lessons from <i>Drosophila</i>. |
| 15:45-16.30 | Bruce Levin (Emory University, Atlanta, USA): The population and evolutionary dynamics of antibiotic treatment <i>in silico</i>, <i>in plastico</i>, and <i>in mouseo</i>. |
| 16.40 | End |