



## EPSO Brainstorm on Landscape Genomics

European Forestry House, Brussels, Belgium

7 April 2009

### Programme



European Plant  
Science Organisation  
[www.epsoweb.org](http://www.epsoweb.org)

### Outline:

The aim of the brainstorm on landscape genomics is to bring together ecologists, natural history collection experts and genomicists to discuss their ideas and needs for future collaboration and agree on next steps. This will include which role EPSO can play to facilitate this, possible recommendations for research programmes (FP7, national etc) and for networking support (COST etc).

The 25 participants are experts from the three different disciplines, who are interested in a variety of topics, such as landscape genomics, including linking herbaria to DNA sample collections; wild relatives of crop plants; domestication of novel crops from wild species; and ecosystem fluxes.

During the preparation and at a workshop for users of natural history collections in November 2008, it became obvious that there is high demand for such interaction.

The conclusions of the brainstorm session will be posted on the EPSO website.

### Organisers:

Karin Metzloff (EPSO, Brussels, BE), Detlef Weigel (MPI Developmental Biology, Tuebingen, DE), Simon Owens (Royal Botanical Gardens Kew, UK), Rob Huxley (Natural History Museum London, UK)

## Agenda

- 10:00 - 10:40 Welcome and opening (chair K Metzloff, 3 introductory talks of 10 min each)
- **Karin Metzloff** - EPSO - new partners exploring new opportunities in molecular ecology (EPSO, BE)
  - **Detlef Weigel** - Developmental biology and landscape genomics (MPI Developmental Biology, Tuebingen, DE)
  - **S Owens and R Huxley** - European Natural History Collections. What can they offer the scientific community? (Royal Botanical Gardens Kew & Natural History Museum London, UK)
- 10:40 - 11:00 Tour de table
- 11:00 - 12:00 From genomics to ecology (chair D Weigel, 5 talks of 10 min each)
- **Alexander Widmer** - reproductive barriers and the maintenance of species boundaries (Institute of Integrative Biology, ETH Zurich, CH) not present
  - **Ian Baldwin** - Using field stations as natural laboratories for the study of plant gene function (MPI Chemical Ecology, Jena, DE)
  - **Stefan Jansson** - Molecular ecology and landscape genomics of trees (Umeå Plant Science Centre, SE)
  - **Heinz Ruedel** - The Environmental Specimen Bank Program in Germany (RWTH Aachen, DE)
  - **Titti Mariani** - Nijmegen living Solanaceae collection and herbarium (Radboud University Nijmegen, NL)
- 12:15 -13:15 From ecology to genomics (chair: R Huxley, 5 talks of 10 min each)
- **Paul Smith** - The Millennium Seed Bank Partnership: enabling adaptation and innovation (Wakehurst Place, Kew, UK)
  - **Laura Rose** - Population Genetics and Adaptation in Plants (Uni Munich, DE)
  - **Jackie Mackenzie-Dodds and Isabel Rey Fraile** - Molecular Collections in Natural History Museums and Herbaria (NHM London, UK and MNCN, Madrid)
  - **Stephanie Manel** - Landscape genetics (University Grenoble, FR)
  - **Niels Raes** - Macroecology: Modelling the distribution of wild relatives of crop plants (National Herbarium, NL)
- 14:15 - 16:00 Discussion (chair: R Huxley)
- 16:15 - 17:15 Conclusions, next steps (chairs: K Metzloff, D Weigel, S Owens)
- 17:30 Close (K Metzloff)

## List of participants grouped by expertise:

- **Karin Metzloff** - EPSO: new partners exploring new opportunities in molecular ecology, EPSO, BE

From genomics to ecology:

- **Detlef Weigel** - Developmental biology and landscape genomics, MPI Developmental Biology, Tuebingen, DE
- **Vicky Temperton** - Molecular biology and links to ecology, Phytosphere Jülich, DE
- **Alexander Widmer** - Reproductive barriers and the maintenance of species boundaries, Institute of Integrative Biology, ETH Zurich, CH - not present
- **Rainer Matyssek** - Ecosystem flux, TU Munich, DE
- **Dieter Ernst** - Ecosystem flux, Helmholtz Zentrum Munich, DE
- **Ian Baldwin** - Molecular ecology, MPI Chemical Ecology, Jena, DE
- **Maarten Koornneef**, MPI Cologne, DE
- **Stefan Jansson**, Umeå Plant Science Centre, SE
- **Heinz Ruedel** - Applied ecology - German Environmental Specimen Bank, Aachen, DE
- **Titti Mariani** - Nijmegen living Solanaceae collection and herbarium, Radboud University Nijmegen, NL
- **Tommy Gallagher** - Ecophysiology, UC Dublin, IRE
- **Penny Hirsch** - Soil microbe - plant interaction, experimental plots, Rothamsted Research, UK

From ecology to genomics:

- **Simon Owens** - Natural History Collections, RBG Kew, UK
- **Rob Huxley** - Natural History Collections, NHM London, UK
- **Christiane Quaiser** - European Distributed Institute of Taxonomy (EDIT), Naturalis, Leiden, NL
- **Jim Harris** - Restoration ecology, Cranfield University, UK
- **Paul Smith** - Millennium Seed Bank project, Wakehurst Place, Kew, UK
- **Isabel Rey Fraille** - Molecular collections of frozen tissue and DNA storage, National Museum of Natural Sciences, Madrid, ES
- **Volker Wilde** - Paleobotany & climate, Senckenberg Museum Frankfurt, DE
- **Laura Rose** - Population genetics, Uni Munich, DE
- **Jackie Mackenzie-Dodds** - Molecular biologist managing the Zoology Molecular Biology Unit, NHM London, UK
- **Stephanie Manel** - Landscape genetics, University Grenoble, FR
- **Niels Raes** - Macroecology - collections, bias and distribution models, National Herbarium Nederland, NL
- **Justyna Wiland-Szymanska** - Plant ecology, interest in molecular aspects, Faculty of Biology at Adam Mickiewicz University, PL