

Cross-Institute Programme for Sustainable Soil Function

SoilCIP

Newsletter for May 2008



SoilCIP Institute Strategic Programme Grant (ISPG)

We received feedback on our ISPG in mid-May. As indicated to me by Nigel Brown, comments are relatively few and mostly positive, as shown by the brief excerpt below

ISPG5: Grassland, environment and soil systems / Soil CIP

It was obvious to the Panel that the Soils CIP has clearly had a major impact, in research and funding, on what is done within the Grassland, Environment and Soils ISPG at IGER. It was recognised that this programme had good, clear 'direct' objectives with defined, measurable deliverables and relevant experimental and modelling work, and that there is great emphasis in the text about "hypothesis driven" research, as recommended by the VG.

We are asked to address two main points:

- i) Please provide a more precise indication of resources allocated to each objective/task. At present, only PI involvement at unspecified %time allocation and slightly vague Gantt charts have been provided. All programmes need to specify PI time allocations, and Grassland, Environment and Soils and Multifunctional Landscapes need to provide refined milestones and deliverables.
- ii) Economic and social impact is and will remain a key aspect of the delivery of ISPGs and the programmes as currently presented generally lack clear objectives in these areas. Can you please therefore provide additional well-specified objectives for each programme in these areas.

Work Package leaders are working with me on the required response, in consultation with others where necessary.

Work Package leadership

As noted in my e-mail to you all a couple of weeks ago, we said 'Goodbye' to Phil Haygarth at the end of this month. (A traditional cream tea was held at North Wyke. A further 'do' may follow.) I am sure that we will be seeing plenty of Phil in the future; my aim is to use his move to strengthen cross-institutional links with Lancaster. However, as I said in the e-mail and reiterate here, we need to ensure a clear leadership structure for the SoilCIP and continuity in the research. Les, Phil, Phil Murray and I are agreed that, because of his expertise and commitment to the SoilCIP, Roland Bol should take over the leadership of WP4 from 1st June. Roland will join the Management Board. Phil Murray will be SoilCIP Deputy Manager.

Helen Yates

Helen Yates left Rothamsted on 27th May after 10 years in the Soil Science Department and its forerunners. Helen worked on a number of projects, most recently with Saran Sohi on the characterization and modeling of soil organic matter. We would have liked to have kept her in the CIP but neither new Defra funding nor spare ISPG funding is available. We wish Helen well for the future.

Cross-Institute links with the Centre for Ecology and Hydrology

I met Mark Bailey and Bridget Emmett at CEH Oxford on 13th May as part of ongoing SoilCIP-CEH collaborations. I'm awaiting notes of the meeting from Mark, but we are likely to agree to a joint modeling workshop next spring and an 'Above-Below Ground' workshop at the end of 2009.

Cross-Institute links with France

Roland Bol, Martin Blackwell, Jane Hawkins, Chris Hodson, Kit Macleod and Anita Shepherd attended an excellent one-day workshop at INRA Rennes (Sol, Agronomie et Spatialisation). The focus of the presentations and discussions was on integrated modelling, manures and faecal indicator organisms (FIOs) N and P biogeochemistry and the hydrological and biogeochemical performance of agric-ecological 'buffer' systems. NWRes and INRA research is closely aligned on agro-ecological systems with areas that are distinct and which potentially will enable collaboration. INRA Rennes has focused on the fate and behaviour of N from the field to headwater catchment scales. They are international experts on understanding the underlying processes and linking these with spatially explicit models. They have three LTER headwater catchments that have been monitored for over 10 years (Kerbernez and Kerrien catchments in West Brittany and Kervidy-Naizin catchment that is further east towards Rennes). These belong to the ERO AgrHys (French Environment Research Observatory on the transfer time in agricultural catchments) http://www.inra.fr/ore_agrhys_eng/. Kit reports that it was a very useful visit, with good discussions on areas of BBSRC-relevant science. More information from Kit at: kit.macleod@bbsrc.ac.uk

Kevin Roos was a Visiting Student from the University Institute of Technology, Poitiers, who worked with Saran Sohi on the effects of biochar on nitrous oxide emissions from soil. He has written an excellent report that, I am sure, Saran would be happy for you to read. Please contact Saran if you would like an electronic copy.

Cross-Institute links with Brazil and Australia

A group from EMBRAPA (Empresa Brasileira de Pesquisa Agropecuaria) comprising Dr Pedro Antonio Arraes Pereira (Head of Labex USA, Embrapa Rice

and Beans), Dr Carlos Lazarini (Director of R&D at Embrapa), Dr Luis Fernando Vieira (Chair of Labex Europe, Montpellier, France) and Dr Amauri Rosenthal, visited Rothamsted on 20th May. We had a brief discussion about SoilCIP research. We hope to have Dr Claudia Maia from EMBRAPA Florestas here shortly on a one-year training programme with Saran Sohi.

Dr Pauline Mele, Biosciences Research Division, Department of Primary Industries, Victoria, Australia, visited Rothamsted on 22nd May. As part of a Land and Water Australia Senior Research Fellowship, she is developing 'A new Charter for Soil Biology Research in Australia', focusing on: 1. The major drivers for soil biology R&D in the UK (and Europe). 2. The priority setting process (country-specific and broader European processes) and investment decision processes. 3. Emergence of key biotechnologies that will enable greatest advancement. She has also met Tony O'Donnell, Richard Bardgett, Ken Killham and Helaina Black and will be visiting NERC and BBSRC.

Defra matters

Soil Strategy Advisory Forum

Defra has re-badged its Soil Action Plan Advisory Forum in line with its new draft Soil Strategy. I attended the first meeting of the SSAF on 22nd May, at which we discussed the Soil Strategy in the context of the current consultation. Comments made and views aired at the meeting will be useful in writing our response to the consultation, which is due by 23rd June; details at:

<http://www.defra.gov.uk/corporate/consult/soilstrategy/index.htm>

Professor Robert Watson

Bob Watson, Defra's Chief Scientific Advisor, paid a very brief visit to Rothamsted on 29th May.

BBSRC review of research relating to Environmental Change

On 6th May a review panel for the BBSRC launched a new consultation to inform future directions in BBSRC-funded research relating to environmental change. See:

http://www.bbsrc.ac.uk/organisation/policies/reviews/consultations/0805_environmental_change.html

The consultation is inviting views from interested individuals and organisations and will contribute to the panel's independent review of BBSRC research in this area. The panel's advice will inform BBSRC's current and long-term priorities for research of relevance to environmental change, in particular the Council's ongoing involvement in the major cross-Council programme, Living with Environmental Change (LWEC). Consultation responses are welcome on all and any of these points. Steve McGrath is leading the Institute's response. Any comments to Steve, please.

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-Integrating Water and Agricultural Management

Dear Colleagues,

A successful international workshop was hosted by the Defra Water Coordination team (Integrating Water and Agricultural Management) in Bath, UK (March 2008). The event was attended by over 70 participants mainly from the UK with colleagues from a further six countries. This newsletter provides a summary.

Yours sincerely,

Kit Macleod and Phil Haygarth, Defra Water Coordination, North Wyke Research, Okehampton, Devon, EX20 2SB, UK

Agriculture, Water Management and Climate Change



4-6th March 2008
Bath, UK.

Newsletter content (need to look at attached PDF)

- Rich picturing activity
- IWAM theme open space activity
- Feedback

Purpose of the workshop: Toward greater levels of shared understanding or experience of the science required for integrated and adaptive management

Key messages:

- We need to improve linkages between data-models-evidence-policy (under uncertainty).
- Economics is very important: not just micro and macro. Cost of change, resources and payments for services are also important.
- Sharing of knowledge through communication and education amongst stakeholders (including scientists, farmers and policy makers) is vital.
- We need to combine scientific credibility with practical usefulness.
- There is a need to look at ecosystems and our management of them more holistically.
- There are increasing calls for longer term outdoor observatories that meet societal and policy needs in support of the evidence base.

Online workshop material is available at:

<http://www.northwyke.bbsrc.ac.uk/IWAMwebsite/pages/AWMCCworkshopreport.htm>

Extracts from the

BIOSCIENCES FEDERATION

**Report on science policy
April 2008**

The Department for Innovation, Universities and Skills has launched a large-scale study into the use of land as a resource in the UK. The 'Land Use Futures' project, which will be overseen by the government chief scientific advisor John Beddington, will explore how the UK's use of land may need to evolve to meet future challenges and how it can deliver economic, social and environmental benefits sustainably. It will look at both urban and rural land use. Beddington will shortly invite leading academics and senior stakeholders to work closely with the government on the study, the findings of which will be published at the end of 2009. <http://www.foresight.gov.uk/LandUse/LandUse.html>

The full Biosciences Federation report can be seen at the BSF Science Policy web page:

http://www.bsf.ac.uk/science_policy.htm

Go to the bottom of the web page and click on 'FULL REPORT'.

Website

Kevin Coleman and I are now desperate for feedback on the revised website. We need links to group, project and personal web pages, photos and graphs:

http://www.rothamsted.bbsrc.ac.uk/aen/SoilCIP_update/

Keith Goulding, 30th May 2008