

Cross-Institute Programme for Sustainable Soil Function

SoilCIP

Newsletter for October 2008



Cross-Institute visits and links

Visit by new BBSRC senior managers

Senior managers from Swindon Office visited Rothamsted on 23rd October together with institute Directors. Prof Douglas Kell (Chief Executive), Prof Janet Allen (Director of Research) and Dr Celia Caulcott (Director of Innovation and Skills) heard about the work of the Research Centres, including the SoilCIP, and visited some labs and field experiments. The day ended with a session on today's uses for long-term experiments, with good exposure for the new Highfield Experiment.

Science Strategy Forum

Rothamsted's Science Strategy Forum met at North Wyke on 20th and 21st October to hear about the science being done and see the resources available. It was a very enjoyable and profitable meeting. Outcomes are likely to include joint meetings on maths/computing/informatics and 'omics for ecology.

UK-Brazil workshop

While at a conference in Brazil in September, Phil Murray and Phil Brookes met Cristina Hor from the British Embassy in Brazil. The Embassy has agreed to fund a joint UK-Brazil Workshop on Soil Quality early next year. There is funding to include PhD students as well as research staff. More news when available. If interested, contact Phil M or Phil B.

Growing the Future III. The need for Nitrogen

'Growing the Future' workshops are funded by the Lawes Agricultural Trust and the John Innes Foundation with two objectives: (1) to place into the public domain topical scientific issues of relevance to society at large; (2) to identify drivers that exist or might emerge, which will affect, or should inform, the future direction of scientific enquiry at Rothamsted Research and the John Innes Centre. Previous workshops have been on Non-food Crops and on Insect Pests and their Control. I attended the third 'Growing the Future' workshop, entitled 'The need for nitrogen' at Rothamsted on 29th-30th October 2008. Notes of the meeting and planned actions are being prepared. Details of past workshops are at:

<http://www.rothamsted.ac.uk/Research/GrowingTheFuture.html>

JESIUM Conference

The second JESIUM (Joint European Stable Isotope Meeting) was organised by the French Society of Stable Isotopes (SFIS) under the coordination of Jaleh Ghashghaie, and took place at the Presqu'île de Giens in the south of France from 30th August to 5th September. The specific objectives of JESIUM 2008 were to bring together scientists with a broad range of interests in stable isotopes to:

- encourage communication across disciplines and country boundaries
- provide the opportunity to discuss theoretical and methodological difficulties
- exchange ideas about how techniques might be transferred to other areas of research
- discuss the role of isotopic measurements for a better understanding of life processes, ecology, mechanisms in terms of physical chemistry, biology, circulation, evolution, interactions within and between ecosystems and environmental compartments, terrestrial and extra-terrestrial geologies, human activities and practices: imprint, impact and remediation and diagnostic and decision tools for society.
- stimulate discussion and reflection on the importance of quality in measurements
- stimulate exchanges in Europe between non profit-making scientific societies and organisations promoting the use of isotopic measurements
- facilitate the creation of a formal European Federation of Associations of Stable Isotope Users.

Liz Dixon, Steve Granger, Jenni Dungait and Roland Bol attended. Steve and Roland presented papers, and Liz, Steve, Roland, Jenni, David Hatch and Fangjie Zhao were involved in 6 posters. Roland chaired the final session of the meeting and summarised outcomes, which should include several papers to be submitted to *Rapid Communications in Mass Spectrometry* or *Isotopes for Environmental and Health Studies*. Liz Dixon discussed method development for measuring $^{15}\text{N}_2 / ^{15}\text{N}_2\text{O} / ^{13}\text{CO}_2$ in gas samples and ^{18}O in water samples. Jenni Dungait and Roland Bol are developing links with collaborators in Denmark and the US.

Details at: <http://jesium.org/home.php>

North Wyke Stable Isotope Facility

The Stable Isotope Lab at North Wyke has UKAS accreditation but recently subjected itself to an even sterner test. The lab participated in an interlaboratory comparison that included labs in the UK Forensic Isotope Network. These have the strictest requirements for their measurements because their analyses are used in criminal cases. For those who understand the numbers, twenty six laboratories took part in the 4th FIRMS inter-lab comparison. Two samples were analysed for $\delta^{13}\text{C}$ vs VPDB and $\delta^{15}\text{N}$ vs AIR. Our Z scores were -0.25 and 0.16 for $\delta^{13}\text{C}$ vs VPDB and -1.53 for $\delta^{15}\text{N}$ vs AIR (if Z is between -2 and +2 the result is acceptable and scores greater than 2.5 are indicative of outliers). The FIRMS website is at:

<http://www.forensic-isotopes.rdg.ac.uk/>

If you would like to know more about the North Wyke Isotopes Lab and what it could offer you, please contact Liz Dixon at North Wyke.

British Society of Soil Science (BSSS) Institute of Professional Soil Scientists Administrator and Policy Officer

The British Society of Soil Science (BSSS) and the Institute of Professional Soil Scientists (IPSS) currently employ a part-time Administrator to manage their financial affairs, membership and communications and to organise their meetings. On the retirement in March 2009 of our current Administrator, BSSS and IPSS want to expand the role of the Administrator. Under the leadership of the Presidents of the Society and Institute and their respective Councils, the job of the Administrator and Policy Officer will be to manage the financial and administrative affairs of the Society and Institute, reporting to the President and Council at their respective twice-yearly Council meetings and to Society and Institute members at the respective Annual General Meetings, and to raise the profile of soil science on the policy and education agendas.

The post is full time and permanent but subject to a six month probationary period. The annual salary is £24,000 plus a negotiable contributory pension scheme. Holiday entitlement is 25 days plus statutory days.

Candidates should have at least a degree in a relevant subject, extensive experience of relevant research and, preferably, some training in office management and administration. Full details are available from the BSSS and IPSS websites or from me.

The closing date for applications is 7th November 2008. Interviews are expected to be held in the week commencing 24th November 2008. Applicants are asked to send me a CV and covering letter, which fully addresses the job description and person specification. Please tell anyone that you think might be interested in and suitable for the job.

Creation of a New Organisation for the Biosciences

The Councils of the Biosciences Federation (BSF) and Institute of Biology (IoB) have proposed that a New Organisation for the biosciences (NO) should be created. This Organisation will embrace the activities and strengths of both BSF and IoB, and add new activities that will benefit UK biosciences and provide value to the membership. More at: <http://www.bsf.ac.uk/Media/NewOrg.htm>

IUSS Alert – 42 (October 2008)

Information for and from the global soil science community
Global land cover

The Global Land Cover Facility (GLCF) provides earth science data and products to help everyone to better understand global environmental systems. In particular, the GLCF develops and distributes remotely sensed satellite data and products that explain land

cover from the local to global scales. Primary data and products available at the GLCF are free to anyone via FTP. Online datasets may be accessed electronically through the Earth Science Data Interface. The majority of users accessing GLCF datasets (certainly not all) come from many communities. GLCF research focuses on determining land cover and land cover change around the world. Land cover is the discernible vegetation, geologic, hydrologic or anthropogenic features on the planet's land surface. These features, such as forests, urban area, croplands and sand dunes, can be measured and categorized using satellite imagery. Land cover change can be assessed by comparing one area with two images taken at different dates. Determining where, when, how much and why change occurs with land cover is a crucial scientific concern. It is imperative that appropriate tools be made available to better manage and adapt to change. More information click [here](#).

Keith Goulding, 31st October 2008