

USING NERC SCIENCE

March 2009



Welcome to the latest edition of the Natural Environment Research Council (NERC) knowledge exchange newsletter.

News

Nomination and selection for NERC's Science and Innovation Strategy Board (SISB)

NERC is inviting self-nominated applications for membership of SISB from across the NERC science domain. For the 2009 round, applications from those with expertise in physics, atmospheric sciences, geo- and palaeochemistry, marine biogeochemistry, geophysics, ecology, solar and terrestrial physics or a relevant business sector background would be particularly welcome. All applications will be considered on merit. **Deadline for applications: 8 June 2009.** For details on how to apply see:

<http://www.nerc.ac.uk/about/work/boards/science/nominationandselection.asp>

Royal Society Pairing Scheme open for applications

The Royal Society operates an MP/Civil Servant and Scientist Pairing Scheme. Applications for the 2009 scheme are now open. The scheme was set up in 2001 initially to help build bridges between parliamentarians and some of the best science research workers in the UK. The scheme has now been expanded to include civil servant - scientist pairings. For further information and application forms see <http://royalsociety.org/page.asp?id=6998>. Applications to be sent to Jason Codrington or emailed to public.affairs@royalsociety.org by **3 April 2009**. See also following item:

Read an account of a successful pairing – Paul Williams, a NERC Fellow in climate modelling at the University of Reading, writes about his pairing with Rob Wilson MP at:

<http://www.nerc.ac.uk/using/casestudies/pairing.asp>

Forthcoming events

NERC Community Events to discuss Theme Action Plans

Glasgow, 21 April 2009 and Bristol, 24 April 2009

A reminder that NERC will be holding two Community Events in Glasgow and Bristol respectively, to give the environmental science community the opportunity to hear about progress in delivering the first phase of NERC's Theme Action Plans. Attendees will be able to engage Theme Leaders in discussions on the future plans for each of the science themes. Further information on the events, and the online registration, for Glasgow see: <http://www.nerc.ac.uk/events/090421/> and for Bristol, see: <http://www.nerc.ac.uk/events/090424/>. **The application deadline is 15 April 2009.**

UK Energy Research Centre (UKERC) One day event: Sorry or Safe?

30 April, 2009, Institute of Engineering and Technology, 2 Savoy Place, Westminster, London

This event will bring to a close the first five year-phase of the UKERC's activities. The event will launch a report showcasing the findings of a cross-Centre research project – UKERC Energy 2050. The results will show how the UK can meet its goal to cut greenhouse gas emissions by 80% by 2050 while dealing with anxieties about energy security. The two year project has involved a unique whole systems investigation of energy in the UK. NERC is a part funder of UKERC. For more information and to register, go to: <http://ukerc2050.eventbrite.com/>

Call for participants: Land Based Renewables sandpit event

1-5 June 2009, Venue: TBC, London area or the Midlands

Expressions of interest are invited to attend a five day interactive strategic workshop to develop a research project(s) with the overall aim to undertake multi-disciplinary research on how and where best to deploy land-based renewables to maximise both energy and environmental gains. This must be in the context of relevant spatial analysis of land-based renewables options that make the maximum contribution possible to security of energy supply whilst optimising land-use for energy, environmental and social gain. Closing date: **17 April 2009**. For information and to apply see:

<http://www.nerc.ac.uk/research/themes/news/lbr-sandpit.asp>

Centre of Ecology and Hydrology (and partners) stand at Royal Society Summer Exhibition

30 June - 4 July 2009, London

The invasive harlequin ladybird threatens more than 1000 species in Britain. With help from the public, the Harlequin Ladybird Survey is monitoring the harlequin's spread and is exploring ways of reducing its threat to native biodiversity. At the Summer Exhibition stand, which is being organised by the Centre for Ecology & Hydrology and Cambridge University along with their partners, it will be possible to learn how to identify ladybirds and see them behaving badly; get up close to them under the microscope; and find out how to catch the recording bug! The exhibition is *FREE* to attend and open to all. See:

<http://royalsociety.org/event.asp?id=8256&month=6,2009>. Contact: Kate Groves: groves@ceh.ac.uk

The Unico Impact Awards Ceremony

11 June, at the UNICO conference Gala Dinner

The Impact Awards is a new award scheme, organised by Unico. It is designed to recognise and celebrate the success of knowledge transfer. The Impact Awards are open to all sectors of research that have made an outstanding impact through successful knowledge transfer including: Business; Environment; and Public Policy and Service. For further information about The Impact Awards, or to nominate a project and team (teams may self nominate) please visit www.impactawards.org.uk

IOSF Ocean forum on geoengineering and the future of the Arctic

10-12 June 2009, National Oceanography Centre, Southampton (NOCS)

A key conference in marine affairs operating under the banner "Minimising Impact, Maximizing Benefits" will focus on two urgent themes of marine governance: The Arctic Ocean and Geoengineering. The IOSF is organised under auspices of the United Nations Convention on the Law of the Sea (UNCLOS) group at NOCS. The group delivers independent, high-quality scientific advice on territorial sovereignty, marine scientific research, resource management, and the preservation of the marine environment to bodies including the UK Government and the United Nations. Online booking now open at www.oceanstewardship.com. Contact: info@oceanstewardship.com or R Goddard +44 (0)2380 596542.

Funding opportunities

Linking Innovation in NERC (LIN): Call for proposals to host a NERC KE Fellow

A reminder that the NERC Knowledge Exchange Fellowships scheme has now been launched. NERC wishes to appoint a number of part-time Knowledge Exchange Fellows (KE Fellows) through the Linking Innovation in NERC (LIN) pilot project. Higher Education Institutions in receipt of NERC funding are eligible. **The closing date for proposals for this call is 24 April 2009.** See <http://www.nerc.ac.uk/using/schemes/lin/announcement.asp>. Prospective applicants should email lin@aeat.co.uk to register their interest in attending the information day.

NERC invites applications for the 2009 Environment YES competition workshop

14-16 October 2009, Oxford

The Young Entrepreneurs Scheme (YES) is a scheme to introduce researchers working in the natural environment sciences to the commercialisation of their work. The aim is to increase the level of entrepreneurial awareness in the environmental science community. A briefing session will be held on 18 or 19 August 2009 in Nottingham, and the workshop will take place on 14-16 October 2009. The London final will be held on 14 December 2009. The scheme is aimed at individuals who are in the early stages of their research career, for example PhD students or those working on their first or second post-doctoral research appointment. For application forms see: <http://www.nerc.ac.uk/using/schemes/yes/> **Closing date 17 June 2009.** For further info contact [Stephen Loader](mailto:scl@nerc.ac.uk) (scl@nerc.ac.uk)

Science into policy

New report on Climate Change Policies integration across Europe.

Specific measures to tackle climate change, such as emissions trading, will only be successful if they are coherently supported by other government policies addressing economic and social issues, according to a new report "Climate Policy Integration, Coherence and Governance" published by the Partnership for European Environmental Research (PEER). The report explains that in order to create an effective Europe wide climate policy, climate change issues must be better integrated into both general and sector-specific policies such as taxation, transportation, and land use planning. PEER is chaired by the NERC Centre for Ecology & Hydrology. PEER membership is formed from seven of the biggest European environmental research institutes. See: http://www.ceh.ac.uk/news/news_archive/2009_news_item_12.html The full and summary reports are at available at: <http://peer-initiative.org/html/obj44.html>

NERC Online

Podcasts and blogs

Don't forget you can read NERC's award winning in-house magazine "Planet Earth" online, where you will find some fascinating insights into NERC-funded science. Visit also the multimedia section where you can hear stories ranging from forecasting future famines to soils that hate water at: <http://planetearth.nerc.ac.uk/multimedia/index.aspx> and read the blogs and opinions section at: <http://planetearth.nerc.ac.uk/blogs/index.aspx>.

Commercialisation

World's first deep sea lab-on-a-chip sensors proved to work

Innovative marine sensor technologies tested on RRS Discovery expedition at depths of 1600 metres are now ready to be developed further for commercialisation. The project has two strands: to develop lab-on-a-chip chemical and biochemical analysers to detect nutrients and pollutants at the ultra low

concentrations found in the ocean, and to develop small chips to identify individual phytoplankton in the oceans. Developed by researchers at the National Oceanography Centre, Southampton (a NERC collaborative centre) and the University of Southampton, these biogeochemical sensors when developed, will provide a new technology platform for marine scientists, and will have applications in many allied activities such as those undertaken by the water industry, in environmental impact assessments and in monitoring ship ballast water. See: <http://www.sciencedaily.com/releases/2008/12/081211081622.htm>

Other applications of NERC science

The geology of the human heart

Geologists investigating how planets form, have found an unlikely application for their research: modelling blood flow in diseased hearts. Research to model molten metal flow in meteors has helped doctors locate blood clots in hearts. The breakthrough for medicine could be profound, and the first application could be in heart surgery. Scientists have already used the new technology to analyse blood flow in the heart of a patient in hospital: the location of a pool of stagnant blood which could cause a blood clot was not obvious from an MRI scan, but when the researchers used their software to analyse the scan, they predicted the clot's location correctly. The next step is to develop its medical applications. This NERC-funded project is led by Professor Nick Petford at Bournemouth University. Read more on Planet Earth online: <http://planetearth.nerc.ac.uk/news/story.aspx?id=369>

BGS launches *GeoScholar*, to support earth sciences teaching in higher education

The new initiative 'GeoScholar' is a digital teaching materials set comprising data to support the teaching and learning of earth sciences in the UK higher education sector. It is supplied on DVD, and covers the twelve most popular areas of classic UK geology used in university teaching. The data include digital geological map and subsurface data from BGS, aerial photos (supplied under licence by Infoterra), and NEXTmap digital terrain model (supplied under licence by Intermap Technologies). GeoScholar is supplied entirely free of charge. Further information is available http://www.bgs.ac.uk/services/services_for_you/research/geoscholar/home.html.

The next update will be in May 2009. For general information about NERC's knowledge exchange activities, go to <http://www.nerc.ac.uk/using/>. If you would like to give us feedback on the newsletter, please send to Sylwina Szalkowska at ssz@nerc.ac.uk.