



## **Relu Newsletter**

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# 1 New Relu book on water resource management published Catchment and River Basin Management: Integrating Science and Government, edited by Laurence Smith, Keith Porter, Kevin Hiscock, Mary Jane Porter and David Benson, is now available. The central focus of this new book is a critical comparative analysis of the key drivers for water resource management and the provision of clean water-governance systems and institutional and legal arrangements. It draws on work carried

out within the Relu programme by the "Catchment Management for Protection of Water Resources" project. Through a series of case studies the book shows how decision-making and implementation at the appropriate geographic and governmental scales can resolve conflicts and share best sustainable practices.

## 2 Farmers play key role in Sustainable Intensification Research Platform

The Sustainable Intensification Research Platform (SIP) is a multipartner research platform funded by Defra to explore the opportunities and risks for sustainable intensification across England and Wales. The initial phase of the research, due to complete in 2017, will bring farming and academic expertise together to investigate ways to increase farm productivity while reducing environmental impacts and enhancing benefits that agricultural land provides to farmers and society. There are currently two projects in progress examining sustainable intensification from the farm and the landscape perspectives. For more information and to keep up to date with the research results visit the SIP website at <a href="https://www.siplatform.org.uk">www.siplatform.org.uk</a> and sign up to the newsletter by contacting Gavin Huggett (g.huggett@exeter.ac.uk)

## 3 What would a "Brexit" mean for the food-energy-water Nexus?

A research team led by Dr Guy Ziv, University of Leeds is looking at the impacts that could arise from the UK exiting the EU on public policy, including what would happen to direct payments to farmers and the impact of this on the agricultural sector.

#### 4 Valuing Nature Health and Wellbeing call event

On Tuesday, 14 July at Austin Court in Birmingham there will be an opportunity to find out more about a forthcoming Valuing Nature <a href="Health & Wellbeing Call">Health & Wellbeing Call</a> and to meet potential partners from different academic disciplines or business, policy or practitioner endusers. You can sign up for the meeting here.

5 Sustainable Agriculture Research and Innovation Club call BBSRC, NERC and ESRC invite proposals for both research and research translation projects to the second call of the Sustainable Agriculture Research and Innovation Club. Approximately £5 million of funding is available for this call. Researchers may apply for two different funding streams which will support research grants providing new data and knowledge and innovation grants using existing research data and knowledge to create new tools, technologies and other outcomes for tangible economic or societal benefits. Details are available on the BBSRC website. Deadline for applications is 16 September 2015.

As part of the catchment management approach, Anglian Water is carrying out a trial project around six key reservoirs to incentivise farmers to stop using metaldehyde to protect crops from slugs and use an alternative chemical instead. The farmers will receive payments to cover their costs and for taking part in <u>Slug it Out</u>. The reservoirs are Alton Water in Suffolk, Ardleigh Reservoir near Colchester, Hollowell Reservoir, Ravensthorpe Reservoir and Pitsford Water in Northamptonshire and Grafham Water in Cambridgeshire. Researchers at the University of East Anglia worked with the Anglian Water team in the development of the project; to suggest ideas and make recommendations for the incentivisation components of the scheme.

## 7 Virtual Agricultural Nitrogen Centres join up with Brazil, China and India

BBSRC and NERC plus partners in Brazil, China and India, have announced a Newton Fund call for virtual joint centres in agricultural nitrogen. Applications are invited to enable research activities between the UK and either Brazil, China or India, for up to three years. The aim of the virtual joint centres is to explore ways to sustain or improve current levels of crop production with lower energy inputs and reduced environmental impacts.

8 NERC Policy placements with UK and devolved governments NERC has launched three new opportunities for policy placements:

NERC is partnering with the Welsh Assembly Government to seek a senior member of the environmental science community to take on a key role linking NERC science with policymaking at the highest level. The main purpose of the role is to strengthen the uptake of science into policy.

NERC and Scottish Government RESAS will fund a senior member of the environmental science community to take up a high level policy placement. The senior Fellow will act as a conduit between NERC and the Scottish Government, working to improve knowledge exchange.

NERC and the UK Government Office for Science are seeking a member of the climate science community to take on a key role advising the government's chief scientific advisor. The closing date for applications is 8 July 2015.

9 The science of sustainability for people and planet
On 25/26 November, as the world looks back on the Millennium
Development Goals, debates the new Sustainable Development
Goals (SDGs) and designs a new universal treaty on climate
change, the Ecosystem Services for Poverty Alleviation (ESPA)
2015 conference will reflect on its research to date which is

providing new evidence about the links between poverty and the environment and creating real development impact and on-the-ground solutions. The conference will take place at the Honourable Society of Gray's Inn in London. Details are available on the ESPA website.

#### 10 The battle to combat black-grass

Herbicide resistance in black-grass is rising steadily. The Farmer Scientist Network will be addressing this serious issue in a breakfast seminar at the Great Yorkshire Show at 8.15-9.30 am on 16 July 2015. The seminar will be led by Farmer Scientist Network Chair Professor Rob Edwards who is Head of Agriculture at Newcastle University and research lead of the BBSRC-funded black-grass herbicide resistance initiative. He, together with colleagues from Sheffield and Rothamsted research, will present the latest results in understanding and combatting this serious threat to UK arable farming. Tom Allen-Stevens, an arable farmer based in Oxfordshire and editor of Crop Protection Magazine will provide a practitioner perspective.

11 Reserve squad needed to protect pollination services
Rare bees and insects must be protected to give British farmers a
strong "reserve squad" of pollinating species and prevent potential
food shortages in the future, scientists say. Researchers at the
University of Reading, funded by the Insect Pollinators Initiative, say
that while most crops are pollinated by only a small number of bee
varieties, conservation efforts should be aimed at a wider number of
species, even those that currently contribute little to crop pollination,
in order to maintain biodiversity and ensure future food security.
Improving bee diversity in Britain would provide farmers and
consumers with an insurance policy against future ecological
shocks, such as climate change.

12 Farming and water quality innovations from a Norfolk farm Around 35 farmers, growers and farm managers plus representatives from the Environment Agency, the Broadland Catchment Partnership and the Canal and River Trust enjoyed a farm tour of Salle Farm, Norfolk in June. The visit provided an opportunity to look at water quality monitoring put in place by the University of East Anglia as part of the Wensum Demonstration Test Catchments project and to learn about the use of cover crops to reduce winter soil loss.

# 13 BBSRC seeks both academics and people from industry for key roles

BBSRC is seeking suitably qualified and motivated individuals from academia, industry and other BBSRC user communities to fill a number of vacancies on Strategy Panels, their Pool of experts, Research Committee E and Follow-on Funding Committee. This is an opportunity to work with other highly experienced people from across the academic, public, private and civil sectors to make an important contribution to the future direction of bioscience research. For more information visit the BBSRC information page. The closing date for applications is Sunday midnight, 5 July 2015.

# 14 New report reveals public views on ecosystem services and valuing nature

Public views on the challenges facing policy and decision makers to manage and value the natural environment have been revealed in a report <u>published on the Valuing Nature website</u>. The "Naturally Speaking..." public dialogue was commissioned to explore how concepts such as ecosystem services and the Ecosystem Approach reflect public aspirations for environmental policy and practice. The dialogue was run in partnership with the Department for Environment, Food and Rural Affairs (<u>Defra</u>), the Natural Environment Research Council (<u>NERC</u>) and <u>Sciencewise</u>, the UK's national centre for public dialogue in policy making involving science and technology issues.

#### 15 What will the uplands look like in 40 years' time?

The communities who live, work and depend on the UK's uplands are confronted increasingly by changing climate, evolving resource demands and economic uncertainty. A new report from <a href="DURESS">DURESS</a> (Diversity in Upland Rivers for Ecosystem Service Sustainability) - funded by the Biodiversity and Ecosystem Sustainability programme (BESS) is intended to help them, and to provide contrasting visions for policy makers, land managers and society of how the UK's uplands could develop over the next 30-40 years.

#### 16 Bees prefer nectar containing pesticides

Bees are attracted to nectar containing common pesticides which could increase their chances of exposure to high levels of these chemicals. The research, published in Nature, discovered that buff-tailed bumblebees and honeybees could not taste the three most commonly used neonicotinoid pesticides and so did not avoid them. In fact, the bees showed a preference for food which contained pesticides: when the bees were given a choice between sugar solution, and sugar solution containing neonicotinoids, they chose the neonicotinoid-laced food. The lab-based study also showed that the bumblebees ate more of the food containing pesticides than the honeybees, and so were exposed to higher doses of toxins. The

research was carried at Newcastle University and Trinity College Dublin as part of the Insect Pollinators Initiative.

17 New funding announced to tackle food security challenge The Global Food Security partnership has agreed a new 5-year interdisciplinary programme of research to tackle resilience of the food system. The programme has been co-designed by BBSRC, ESRC, NERC, Defra and FSA, in partnership with wider stakeholders, and will address a major food security challenge: 'Resilience of the UK food system in a global context'. BBSRC, NERC and ESRC are contributing £14M and further contributions are being considered by other GFS partners. Up to £7M will be available for the first call and researchers will be able to apply for funding later this year.

#### 18 Supplementary awards for BESS

Biodiversity and Ecosystem Sustainability (BESS) has received a supplementary award of around £400K from NERC to take forward impact activities with schools around the biodiversity theme, to be led by Dr Laura Harrison at York, to ensure effective integration of research findings across the diversity of research activity within BESS, as well as to establish a two year, research-based working group on integrating BESS science and emerging developments in Earth observation, led by Professor Heiko Baltzer at University of Leicester.

#### 19 The nature of business

The UK's natural capital is under pressure. The private sector owns and manages the majority of natural capital in the UK. For example, over two thirds of land in England is privately owned. Therefore better management of natural capital by businesses is critical. A new Joint Nature Conservation Committee report: Realising Nature's Value in UK Business explores how UK businesses consider the value of natural capital in their decision-making.

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