



### **Relu Newsletter**

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### 1 Ecosystem services could make a real difference for land professionals

The term "ecosystem services" may be common currency among academics but for many land managers it just seems another piece of jargon, far removed from their everyday practice. The reality is, however, that valuing land for the whole range of different services it provides will become increasingly important. Professionals such as land agents, planners, ecologists and other land-based advisers need to incorporate this kind of ecosystem thinking routinely into the work they do, if they are to provide the best possible service to their clients. Policy and Practice Note No 4 in LWEC's new series shows how research can help land advisers to maximise the benefits. In the landbridge blog, Charles Cowap, Mark Reed and Alister Scott reflect on how a Landbridge knowledge exchange event on ecosystems services helped inform this publication. The whole LWEC series is available on the website <a href="http://www.lwec.org.uk">http://www.lwec.org.uk</a> or in hard copy from mailto:anne.liddon@ncl.ac.uk.

#### 2 Playing the game, from Birmingham to Nebraska

Researchers from Birmingham City University and the University of Nebraska have recently collaborated on an exciting project to develop a board game to improve the way in which the public engage with and understand complex land and resource management issues facing their communities. The Plainsopoly initiative builds on the highly successful Rufopoly game, an output from the Relu programme, where people answer real life questions from research on the rural urban fringe. Rufopoly has also inspired the Greater Birmingham and Solihull Local Enterprise Partnership to design a "game of growth" as part of its public engagement strategy. This voluntary grouping of public sector, private, environmental and academic planners are working together to develop a spatial plan to complement their "Delivering Growth" strategy. The new game will help to inform and provoke responses and so shape the plan.

#### 3 What actions can enhance natural pest control on farms?

The Natural Environment Research Council's Knowledge Exchange Programme on Sustainable Food Production has published a synopsis of evidence for the effects of actions to enhance natural pest control. This is available free of charge to search online or download as a pdf. It covers actions that farmers, land managers or conservationists could take to enhance this ecosystem service, from creating beetle banks and planting new hedges to changing how and when chemicals are used. If you have any comments about the resource or how it could be more useful, please let them know by emailing info@conservationevidence.com.

## 4 Landbridge team contributes to new book on veterinary business and enterprise

Vets are practical scientists who run their own businesses. During their training they need to develop a whole range of skills and to carry on engaging in knowledge exchange throughout their careers. A new textbook for veterinary undergraduates features a chapter by members of the landbridge team on veterinary field expertise and knowledge exchange. The book, edited by Colette Henry, is designed to act as a learning tool to support veterinary business educators in their efforts to embed business and enterprise into veterinary undergraduate courses.

#### 5 Bee research results are buzzing

The effects of pesticides and diseases on bees, the status of wild pollinators in Northern Europe and crop pollination services are just some of the topics currently being covered in publications from the Insect Pollinators Initiative projects. These projects, financed by BBSRC, NERC, Defra, the Wellcome Trust and the Scottish Government under the auspices of LWEC, are drawing to a close in 2014/15. The outcomes of their research are now appearing both in scientific journals and media such as British Beekeepers Association News. Publications are all listed on the Home - UK Insect Pollinators Initiative - CEH Wiki programme's website where you can keep up to date with the research results.

#### 6 New guidance for businesses on environmental impacts

A group of businesses has come together to develop practical guidance on how to undertake an evaluation of the un-costed impacts of their business operations in the agricultural sector. This new guide to valuing business externalities has been produced by the Natural Capital Leaders Platform, organised by the Cambridge Programme for Sustainability Leadership. It takes a business through each step in carrying out a valuation and may be downloaded from the Valuing Nature Network website. A partnership of organisations, including the Valuing Nature Network, United Nations Environment Programme and International Union for Conservation of Nature, led by the World Business Council for Sustainable Development, has produced a film 'Shouldn't nature be on your balance sheet?'to encourage businesses to recognise the value of nature and incorporate it into their business planning.

#### 7 Royal recognition for Relu Director's Office

Newcastle University's Centre for Rural Economy's contribution to research into sustainable rural economies and societies, which has influenced policy and practice around the world, and its role in directing the interdisciplinary Rural Economy and Land Use programme, has been recognised with the <u>award of a Queen's Anniversary Prize</u>. Queen's Anniversary Prizes, awarded by the Royal Anniversary Trust, honour work of outstanding importance and quality in higher and further education in the UK.

#### 8 Relu End of Award Report now on line

The final End of Award Report from the UK Research Councils' interdisciplinary Rural Economy and Land Use programme is now available on line. The programme has been very influential in changing the way that the research councils design research programmes and the report outlines its innovations and achievements.

9 How can science and stakeholders cope with uncertainty? Uncertainty is an inherent feature of our knowledge about climate change, but decision makers have to take appropriate action, even with incomplete information. How can they reconcile these two realities? LWEC's Policy and Practice Note No 5, now available on line, explores this problem and aims to bring some clarity to the topic. You can also now catch up with recordings of the latest LWEC annual conference Decision Making in the Twilight of Uncertainty on line via the LWEC website.

10 New funding call for research into food system challenges
Science and Universities Minister David Willetts has announced
£1.87M funding for research into food system challenges, such as
food safety, food fraud, food crime and consumer trust. The
announcement was made at the Global Food Security Parliamentary
Event, where a refreshed strategy for bringing food security research
funders together was unveiled. The "Understanding the food system"
funding call is a joint initiative from the Economic and Social
Research Council and the Food Standards Agency and was

developed thanks to the Global Food Security programme, which brings together the major UK public funders of food-related research.

### 11 New NERC project to predict nutrient run-off using Demonstration Test Catchments data

High-resolution data from the Eden Demonstration Test Catchment is helping to improve our understanding of nutrient movement in agricultural landscapes. A new NERC-funded project aims to predict nutrient run-off, based on scenarios of likely climate change and changes in land use. Knowledge of nutrient processes under current climate conditions is being enhanced by data from the Eden DTC monitoring stations. More information is available on the NutCat 2050 project website.

#### 12 BBSRC £17m investment in power of bioscience

BBSRC has funded six long-term projects with the potential to make significant impacts in agriculture, health, alternatives to fossil fuels, and using biology to produce important commercial products. The awards are funded through BBSRC's Strategic longer and larger grants which give world-leading teams the time and resources to address areas of key strategic importance. The projects include a range of research, from investigating how to tackle "black grass" – a major crop weed - to understanding swine flu transmission.

# 13 Taking stock of practical experiences with Payment for Ecosystem Services

What can we learn from practical projects in the UK that have tested out payments for ecosystem services (PES)? Ten PES pilots supported by Defra shared their experiences with representatives from local authorities, consultancies, the third sector and academia at an Ecosystems Knowledge Network workshop in Manchester in November. The pilots have been conducted in a wide range of settings in England and Wales, from urban areas to moorlands. They have demonstrated that PES is a flexible approach to building productive relationships between those who influence ecosystem service provision and the people who depend on these services. Workshop participants identified several challenges for implementing and sustaining schemes. PES requires more standards to underpin financial agreements. It also benefits from honest brokers to act as intermediaries between all involved in PES schemes. Modern technology can play a part too: a visitor payback scheme in the Lake District is exploring the use of Smart Phone Apps as payment mechanisms. To find out more visit the EKN website.

14 Can commercial farming and biodiversity work together?

Lynn Dicks who worked on Relu's Linking evidence and policy for managing biodiversity in the agricultural landscape has won a three year BESS Programme (Biodiversity and Ecosystem Service Sustainability) Fellowship. Her research investigates how commercial farms in the UK can be managed to support biodiversity and ecosystem services without compromising on yield or profit. Recommendations will be specific to different farm types and build on detailed scientific understanding of underlying ecological processes.

#### 15 Relu research assesses scope for greening of the CAP

The Relu project Linking evidence and policy for managing biodiversity in the agricultural landscape has published an analysis of evidence behind the "compulsory greening measures" proposed under European Common Agricultural Policy (CAP) Reform. Under the reform proposals, 30% of direct payments to farmers will become conditional upon compulsory greening measures. The Relu project compiled and evaluated experimental evidence for the effects of 85 interventions to protect wildlife on northern European farmland. This analysis is published in the journal Conservation Letters <a href="http://onlinelibrary.wiley.com/doi/10.1111/conl.12046/abstract">http://onlinelibrary.wiley.com/doi/10.1111/conl.12046/abstract</a>. For a copy of the full text email <a href="http://onlinelibrary.wiley.com/doi/20@cam.ac.uk">http://onlinelibrary.wiley.com/doi/10.1111/conl.12046/abstract</a>. For a

16 Is biodiversity offsetting the answer or just another problem? Is biodiversity offsetting, whereby compensating measures are taken to remedy biodiversity losses, an opportunity for nature or a threat? Opinions differ, and in an article on the BESS website Piran White and Dave Raffaelli examine the arguments and what the opportunities and barriers really are for this new approach.

17 Conference will examine the evidence on pesticides and bees The Biochemical Society, the Society for Experimental Biology and the British Ecological Society are holding a conference on "The Impact of Pesticides on Bee Health" 22—24 January 2014 at Charles Darwin House in London. The conference will discuss whether the key insecticides being used in the battle to increase food production are having an overall negative impact on bees, and so food security. It will focus on the scientific evidence on the risks of the cholinergic pesticides, in particular the neonicotinoids, to both honeybees and bumblebees. Evidence will be presented from research laboratories from academia, government and industry to discuss the current scientific evidence, knowledge gaps and future directions. Details are on the website.

# 18 New book explores potential of forestry in era of climate change

"Challenges and Opportunities for the World's Forests in the 21st Century" edited by Trevor Fenning and No 81 in the Forestry Sciences Series has now been published by Springer. The book includes contributions from internationally renowned experts across a range of disciplines and aims to contribute to a better understanding of the fundamental role played by forests and the potential they offer.

#### 19 New EATME Tree available for comments

A revised draft of the Ecosystem Approach Toolkit: Mainstreaming the Environment – or EATME tree from the UK National Ecosystem Assessment Follow-On research is now online and your comments will be welcome. You can access it at the www.eatme-tree.org.uk web portal; please send your feedback to alister.scott@bcu.ac.uk.