



## **Relu Newsletter**

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### 1 Diversity is important for effective pollination

The majority of plant species rely on flower-visiting insects for pollination. Insect pollinators include wild bees, flies, butterflies and beetles, but managed honeybees also play an important role. Abundant and diverse pollinator communities are essential for maintaining healthy ecosystems, stable crop production, and to ensure effective pollination services in the face of continued land use and climate change. But the diversity of these insects is under a variety of pressures. LWEC Policy and Practice Note no 19 makes recommendations for policymakers and land managers that could help to address the problems. All the LWEC Policy and Practice Notes are available on line.

### 2 Global Food Security call for applications

A new interdisciplinary research programme on the 'Resilience of the UK food system in a global context' has launched its first call for applications. This programme has been co-designed by BBSRC, ESRC, NERC, Defra, FSA and the Scottish Government. The programme will fund high quality research projects which integrate science areas from all of the research councils involved and address one or more of the following interlinked themes:

- Optimising the productivity, resilience and sustainability of agricultural and landscapes
- Optimising resilience of food supply chains both locally and globally
- Influencing food choice for health, sustainability and resilience at the individual and household level

For details and applications visit the call page on the BBSRC website. The deadline for applications is 27 October 2015.

# 3 Relu Pickering 'Slowing the Flow' scheme wins Civic Voice design award

At the 2015 <u>Civic Voice National Design Awards</u> in July winner of the 'Judges Special Prize' was the 'Slowing the Flow in Pickering' flood alleviation scheme, which grew out of a project in the Relu programme: <u>Understanding Environmental Knowledge</u>

<u>Controversies</u>. The blue plaque was presented by Griff Rhys Jones to Sarah Whatmore, who led the Relu project, and Mike Potter, a Ryedale resident who was part of the original flood research group, at a ceremony in Westminster Hall. The flood alleviation scheme is now complete and a video is available on line.

### 4 Valuing our life support systems

Natural capital underpins our economy and our health and is of vital importance to human wellbeing. In its 'Valuing our Life Support Systems' summit report The Natural Capital Initiative argues that the valuation of natural capital enables the use of rational policy and business tools for decision-making about investments in infrastructure, and is urgently needed if we are to achieve long term sustainability. All outputs of the summit, including speaker presentations and videos, are now available on the Natural Capital Initiative website and the full report: Valuing our Life Support Systems may also be downloaded.

# 5 What are the most important questions for business sustainability?

The Nexus Network Nexus 2020 project has been asking 'What are the most important questions around business practice that, if answered, could help companies manage their dependencies and impacts upon food, energy, water and the environment?' Over 700 questions were submitted in response to this initiative and in September 2015, Nexus 2020 team brought together 20 academics from a range of disciplines and 20 business leaders from different sectors, to whittle them down to the top most important questions. The work will be presented at the Nexus Network annual conference on 19 November 2015. More information and booking details are available on the Nexus website.

# 6 How should any development of climate geoengineering be governed?

Proposals for the development of technologies that could manipulate planetary systems as a means of counteracting man-made climate change are highly controversial. Computer modellers have investigated the proposals' potential effects and some laboratory work has been done, but as yet we are far from having socio-technical systems capable of delivering controlled geoengineering effects. What governance mechanisms could be applied to the development of such technologies and how should research be conducted? LWEC's Policy and Practice Note no 18 looks at some of these fundamental questions. All the LWEC Policy and Practice Notes are available on line.

#### 7 Understanding public risk concerns about tree health

How has public concern about tree diseases developed over time in the light of recent outbreaks of Chalara ash dieback, Phytophthora ramorum and the oak processionary moth? <u>Understanding public risk concerns in relation to tree health</u> is a three year research project designed to investigate how UK publics understand and perceive the growing threats to tree health from invasive pests and

diseases. The project is part of the multi-disciplinary <a href="Tree Health">Tree Health</a> and <a href="Plant Biosecurity Initiative">Plant Biosecurity Initiative</a> funded under the auspices of the Living With Environmental Change Partnership. The project is a collaboration between Imperial College London, the University of Bath and Forest Research, led by former Relu PI Dr Clive Potter at the Centre for Environmental Policy, Imperial College London. Outputs from the research will be used to improve the way government and stakeholders engage with publics about future risks to our trees, woodlands and forests.

### 8 Where do European farmers seek advice and support?

The <u>PRO AKIS</u> project aimed to find out how and from what sources farmers get reliable and relevant knowledge, as well as orientation and support, in order to evolve, solve problems, and respond to external expectations and development opportunities. The project team has developed <u>policy recommendations</u> for European and national policy makers on how to support innovation in the agricultural sector. Katrin Prager from the James Hutton Institute writes about this in a Landbridge blog.

9. Latest evidence on climate change and UK biodiversity
There is strong evidence that climate change is affecting UK
biodiversity. Impacts are expected to increase as the magnitude of
climate change increases. The latest LWEC Report card
summarises the most recent scientific evidence and understanding
of these processes. It shows where observed changes are likely to
have been caused by changes in the UK climate over recent
decades, and assesses potential future impacts of climate change
on biodiversity. Available now on the LWEC website, it updates the
2013 card, with revised source papers and two completely new
sections on freshwater ecology and soil biota.

#### 10 Be a BEE and Love Your Saltmarsh

Youngsters taking part in BESS (Biodiversity and Ecosystem Service Sustainability) events can now 'Be a BEE' and 'Love Your Saltmarsh'. These are two new activities for researchers and teachers to use at outreach events and are proving popular. The instruction packs can be downloaded and used at science festivals or in the classroom. The core activities are designed for 7-11 year olds, but adaptations are suggested for younger and older participants. In Be a BEE participants forage amongst different species of flowers collecting nectar with their honeybee or bumblebee before returning to fill the hive or nest. They transfer pollen between flowers, and fruit is produced if the pollen matches. Love Your Saltmarsh initiates discussion about coastal management. When there is no saltmarsh and mudflat in front of a Lego town, participants discover that they spend more of their chocolate coins to build and maintain a higher sea wall.

### 11 Find out about the Agri Tech Catalyst projects

All of the projects that have been funded to date by the £70 million Agri Tech Catalyst have been showcased in a new map by the Agri Tech Strategy and this is available on line. Using the map you can filter all 77 projects by category (crops, livestock, precision agriculture, and aquaculture) and then click on a pin to find a description of each project and its partners.

### 12 Do you work in the horticultural industries?

If you work in the horticultural industries then research funders need your views. Laura Vickers from Harper Adams University is a BBSRC/NERC Knowledge Exchange Fellow working with the Horticultural Innovation Partnership focusing on the horticultural ornamental sector. One of the initial aims of the fellowship is to establish how the ornamental industry currently uses research and technology, and identify areas where investment would have a meaningful impact. Views from all stakeholders in the ornamental sector whether academic, producer, supplier or consumer are welcomed. Please give your views on line. For more information contact Laura Vickers lvickers@harper-adams.ac.uk

#### 13 River restoration can return investment four-fold

A new report on river restoration projects across South West England shows that each £1 invested in restoration can generate between £1.90 and £4.50. The projects, led by the Westcountry Rivers Trust, began in 2012 when the Trust won funding to deliver £4 million of river improvement work over three years. This report looks at the socio-economic and environmental returns of these river improvement projects, concluding that 'all projects generate substantial social benefits and support a variety of Ecosystem Services'. For further information visit their website or download the report.

#### 14 Relu interdisciplinary fellow gains chair

Abigail Woods who was one of Relu's interdisciplinary fellows (*Reinventing the Wheel? Farm Health Planning 1942-2006*) has now been awarded a chair in the History of Human and Animal Health at Kings College London.

# 15 Duke of Northumberland Chair of Rural Economy to be advertised

Following the retirement of Professor Philip Lowe, the Duke of Northumberland Chair of Rural Economy, based at Newcastle University's Centre for Rural Economy, will be advertised in mid October. For information visit the Newcastle University website or look for the advertisement in the Times Higher Education.

#### 16 Fishing communities show resilience and adaptation

Fishing communities have faced numerous challenges over the past twenty years, including reform of the European Common Fisheries Policy and environmental, economic and social instability. But the households, businesses and places that depend on fishing have often displayed remarkable levels of resilience and ability to adapt. In a special issue of Sociologia Ruralis Jeremy Phillipson from Landbridge and contributors from the UK and Europe uncover the social structures and institutions that underpin the adaptive capacities of fishing households and businesses.

# 17 Citizen scientists play key role in multi agency tree health project

Citizen science and new technology are being combined in the fight against tree disease as part of Observatree, a new project launched this spring aiming to help protect the UK's trees, woods and forests from harmful pests and diseases – existing or new. Volunteers across the UK have been trained as part of the collaboration between Forest Research, the Forestry Commission, Defra and Natural Resources Wales, Fera, the National Trust and the Woodland Trust, funded by the EU's Life+ programme. The volunteers will verify cases of tree disease recorded via the Forestry Commission's Tree Alert, an online tool which allows anyone to report trees showing signs of ill-health. For further information about the project visit <a href="https://www.observatree.org.uk">www.observatree.org.uk</a>.

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