

## WBP Conference 'Developing Ecological Networks –planning, integration and delivery for Wales' University of Bangor, 18-19<sup>th</sup> September 2013

### Day 1 Morning session

**Chair: Madeline Havard, Board member Natural Resources Wales**

The chair informed conference that due to ill health Morgan Parry was unable to chair today's session and Madeleine wished Morgan a speedy recovery which was echoed by the Minister and the conference delegates. Madeleine introduced Alun Davies AM and in her opening remarks mentioned the current focus in Wales is around economy and jobs but restated the assertion that Morgan wished to pass on to conference that 'the environment is an asset not an obstacle' to economic recovery.

**Professor Chris D. Thomas, University of York. The case for landscape-scale conservation - 10 or so good reasons why more is better**

#### Presentation

Note: selected images have been removed from the presentation pending copyright confirmation

#### **Talk synopsis**

The presentation summarises the ecological logic behind large-scale conservation. Larger numbers of species are found in areas that are large and varied, and where habitats are connected; and individual species survive best in and spread through landscapes containing large amounts of high quality habitats. Large scale conservation becomes even more important under climate change, as species shift their distributions through landscapes. It is also important to the maintenance of ecosystem services. Large-scale, co-ordinated conservation is likely to be more effective than piecemeal conservation conducted independently in different sites.

**Alun Davies AM, Minister for Natural Resources and Food, Welsh Government**

The Minister stated creating jobs and growth and tackling poverty is a priority for Wales. We need to consider not just economic poverty but of poverty reduction in a wider sense including access to the natural world and 'species poverty' rooted in species loss. State of Nature Report- Welsh Government response: the Minister stated he was 'stopped' by the report and didn't wish to respond by solely issuing a press release. The response needed to be generous and far sighted way and avoid playing the 'blame game'. Climate change: taken seriously in Wales and different approach adopted compared to Westminster. The Welsh Government will be investing in this work. Welsh Government will show leadership, act as an enabler and catalyst around environmental agenda. The emphasis needs to be a reduction in process and we need to 'get on and do things'. All in the environment sector need to work together to achieve aims. Audience challenge: the Minister issued a challenge to delegates to leave with a determination your organisation will 'do something'.

£6m fund announced to improve resilience of habitats and deliver ecosystem services will be used to drive innovative approaches using the experience of people who know how to manage the land and have the experience to promote sustainable land management. The written statement on the Ministers departmental priorities will be released in the autumn. Common Agricultural Payment: CAP funds will be used to promote 'living, breathing landscapes'. The Welsh countryside function should not be viewed as a retirement home or leisure park. There is a need to promote real benefits and further negotiations with the EU are taking place on shaping the CAP.

Rural Development Plan: The RDP details will be outlined in the coming months. There will be a focus on landscape management and ecosystem service delivery.

Glastir: there will be a final review in the spring with the scheme in place by 2015.

Welsh Government has commissioned work around Payments for Ecosystem Services – a process enabling people to make a profit from natural resources and has particularly relevance in the Welsh uplands. Welsh Government will be sharing its thoughts on PES in the New Year.

Pollinator Action Plan: the Minister will report on progress towards the Pollinator Action Plan at the Royal Welsh Show in July 2014.

### Ministerial Q&A session

#### **Q1: The 7 'Purposes' of Natural Resources Wales (NRW) don't include Biodiversity or Wildlife. Why? Will the wording be changed to include Biodiversity?**

A1: The Environment Bill sets out greater emphasis on biodiversity. In all likelihood, we need further legislation to cover Animal Welfare, Biodiversity and Animal Health, this has not been finalised and on-going discussions with officials are taking place. The log-jam of legislation means that not all areas can be covered in one Bill. This is not a judgement call on the areas that are not included. There's an immediate need for NRW by way of legislation to have access to the tools to deliver its' responsibilities in a coherent way. With regard to NRW changing wording within its purposes, that conversation is between NRW Chief Executive and Chair. The Minister would not be commenting on NRW decisions in public, since NRW are independent and function at arm's length from the Welsh Government and the Minister praised the work of NRW to date. The Remit letter to NRW from Welsh Government is interpreted by NRW Chief Executive and Chair. There will be conversations held in shaping the remit letter, and the results of these conversations will be reflected in the forthcoming remit letter to NRW.

**Delegate Statement: It has been encouraging to hear you listening to graziers and the farming community. This needs to filter out through policies, to incentivise land managers and provide the flexibility needed in managing the uplands.**

#### **Q2: With direct experience of RDP I am pleased to note that you want to do things. As a community group trying to provide benefits through RDP, we feel that the systems in place hinder our progress and therefore do not provide RDP benefit to local communities. How do you propose to change these systems?**

A2: We would advise that you contact the relevant official to address the specific issues of your project where you feel RDP is not working for you. The Minister asserted that RDP is working and added there are real benefits for communities in rural Wales through RDP. The

Minister's proposals for the next RDP will be more directive, flexible and will remove ineffective systems.

### **Minister's closing comments**

The new RDP will be designed to work and support local groups. More than 60% of RDP is focused on Glastir and 50% of commons are now in better management due to Glastir which is a good achievement and we need to build on this success. The focus of RDP will be to strengthen local communities and the rural economy. It's recognized that there are elements that currently work, and those that don't. The RDP will include a clear direction of travel and clear objectives. Complexity will be removed from RDP funding. The RDP will bring together funds - fisheries funds and possibility of structural funds to deliver greater and bigger impacts. There will be a move towards less bureaucracy and an emphasis on outcomes. Projects will not be funded that don't provide direct positive outcomes for the community and which do not fit with RDP objectives. The key attributes endorsed and integrated into the RDP will be 'agile, adaptable and flexible'. An ecosystem services market framework will need to be in place to enable land owners to profit from creative upland management. The £6m fund will be used to fund projects from people who know their land - supporting habitat works and sustainable land management. Mechanisms are needed to support rural communities. There is a need to strike a balance between livelihoods & ecosystem service delivery. Decisions for upland agriculture need to balance agri-food & agriculture and bring them together. Farm subsidies will go down in the next decade, the ecosystem services under a market framework will enable farmers to make a profit not just on existing costs foregone model.

### **Dr Nick Macgregor, Natural England. Large-scale conservation in Great Britain**

#### **Presentation**

#### **Talk synopsis**

There has been a growing interest across the British conservation community in recent decades in the concept of ecological networks and establishing conservation over large areas. This is strongly reflected in current conservation policies, and significant resources are being put into new large-scale projects (particularly, in England, Nature Improvement Areas).

There is therefore a real need to take stock of the lessons that can be learned from the many large-scale conservation projects that already exist. Over the past two years, a joint research project between Natural England, the University of Southampton and the University of Cambridge, with co-funding and support from Defra, Scottish Natural Heritage and Natural Resources Wales, has been attempting to address this. The project, which is now almost complete, has four broad aims:

- i. To build a good overview of large-scale conservation projects across Great Britain (and produce a summary database for decision-makers and conservation practitioners)
- ii. To explore how scientific and other information is used to inform the planning and management of large-scale conservation projects
- iii. To explore the social and institutional aspects of large-scale conservation and how these affect success in achieving conservation goals

iv. To investigate whether there is evidence of greater environmental improvements in areas with more large-scale conservation activity.

This talk will outline some of our main findings. Dr Macgregor will also summarise some of the recommendations that emerged from a major stakeholder conference held in London earlier this year, at which NE presented some emerging findings and invited colleagues from across the conservation community to discuss some of the main challenges and priorities in large-scale conservation and some of the measures that could be put in place to support it in the long term.

### **Dr Jim Latham, Natural Resources Wales. Habitat networks within an ecosystem approach.**

#### [Presentation](#)

#### **Talk synopsis**

The Ecosystem Approach is becoming widely accepted within environmental planning and natural resource management. The approach requires the development of resilient ecosystems that are able to sustainably deliver services whilst retaining their supporting systems and functions. A key element of ecosystem resilience is connectivity, to offset the effects of habitat fragmentation and to allow ecological and processes to operate more freely across landscapes. Habitat network modelling provides a practical tool to help plan action to maintain and improve connectivity. Network maps have now been produced for a range of broad habitats, including broadleaved woodland, heathland, unimproved grassland, bogs and fens. The talk will review progress with these maps and their practical application, illustrated within the context of adopting an ecosystem approach.

### **Panel Discussion with the morning presenters chaired by Madeleine Havard**

#### **Q1. Catherine Duigan, NRW: - How do we enable people to manage their land?**

A1: Through spatially targeted awareness initiatives and education. Through providing better guidelines as to what can be achieved, in terms of how we can ensure benefits to species and habitats in specific areas. We need to ask ourselves what are the magic ingredients in projects such as Pontbren, which work with landowners providing the central role. People aren't necessarily aware of what is, or could be, special about an area. Butterfly Conservation Project Officers have had success in land management by targeting discussions on what is important in specific areas, and providing management recommendations in discussions with landowners.

#### **Q2. Patrick Lindley, NRW: – Q to Dr Nick Macgregor on Landscape Scale Conservation, with reference to Nature Improvement Areas in England. How can we get better shared outcomes to make it easier for funders?**

A2. Dr Nick Macgregor: Coordinated work to attract funding is needed to help guide funding. There is an inevitable tension in meeting members' requirements. A vision needs to be

developed for an area. The Biosphere Project is an example of how we can raise awareness of an area.

**Q3. Peter Evans, Seawatch Foundation: We recognize that different organisms require different habitats. How do we prioritise/balance this within a Conservation Plan?**

A3. Dr Jim Latham, NRW: We need to determine what are the irreplaceables. And what are the restrictions? Recognize that it is difficult. Often a matter of scale to support diversity. We need to know what goes where, and what fits where.

A3. Professor Chris Thomas: We need to know what that place is important for. People often consider rarer species – this can be wasted resources if that area is fundamentally insufficient in scale/quality despite best efforts. We need to decide what can be achieved.

**Q4. Steve Bolchover, Volunteer recorder: The application of the Ecosystem Approach must be careful not to ignore small but essential habitat areas, supporting the last areas for some species; this is very important. We should also remember the downside to connectivity e.g. spread of invasive non-native species and diseases.**

A4. Professor Chris Thomas: We know that species are moving into special habitats in response to climate change. We have new arrivals in the UK- some colonists have arrived and spread from nature reserves that offer habitat, noticeably birds. However, introduced species have disproportionately arrived within our non-protected environment and moved into our protected environment, with consequences for species and habitat within. We need to build more resilient natural systems.

**Q5. Tristan Hatton-Ellis, NRW: 1. Agri-environment schemes are very restrictive and outcomes limited e.g. difficult to achieve habitat 'roughness'/variation. 2. We have previously based our site selection criteria on identifying the best examples of each habitat type within a defined area, but a different approach may be to consider the type of habitat or habitats that typify, or are special about an area and select sites to support these.**

A5. Dr Nick Macgregor: We don't want to water down our outcomes but we may want to focus more on providing heterogeneity within our sites e.g. achieving varied vegetation structure. Project officers need to be educated to provide flexibility in the guidance they offer.

A5. Professor Chris Thomas: Climate change management needs to understand that it is not possible to use prescriptions to manage and retain all, as this approach is doomed to fail. There is a fine balance between flexibility and prescription.

## **Afternoon session**

### **Kathryn Hewitt, Natural Resources Wales. Natura 2000 program and projects in Wales**

#### **[Presentation](#)**

### Talk synopsis

Natura 2000 is network of protected biodiversity sites which spans the European continent and within which Wales is well represented with 112 Special Conservation Areas and Special Protection Areas covering around 800,000 Ha. Natura 2000 is a good example of how protected sites still have a vital role to play in conserving biodiversity within a broader ecological network.

The LIFE Natura 2000 Programme is an NRW and European funded project to produce a strategic plan for the management and restoration of all Natura 2000 sites in Wales. It will identify costs, funding and priorities for actions which are required bring the designated species and habitats into favourable condition.

The presentation will look at the results of recent work carried out by the project into current issues and risks affecting Natura 2000 sites, as well as the mechanisms which are available to address them and where changes need to be made.

It will also look at what the coming year holds for the project and how we can start integrating the needs for Natura 2000 into broader economic and social agendas to access the additional funding and resources which are required.

**Q: One issue that needs addressing is N2K sites being targeted for industrial development e.g. Loughor Estuary for coal gas exploration. There is a need to liaise with industry to secure the understanding that such sites are not to be targeted, and that the value of sites is clearly understood in a European context.**

A: Kathryn Hewitt, NRW: The Life N2K Project is not tasked with addressing regulatory activity on site. Other areas of NRW are addressing such activity.

### **Dr John Wilkinson, Amphibian and Reptile Conservation Trust. Maintaining connectivity and conservation status for the great crested newt in North Wales:**

#### Presentation

### Talk synopsis

Amphibian and Reptile Conservation is developing fine-scale modelling tools (with funding from CCW/NRW) to predict distribution of great crested newts, target surveys and conservation action (e.g. habitat linkages), and assess the effects of putative developments on local conservation status. These goals contribute to an integrated surveillance strategy for the species. We demonstrate these approaches with examples from the great crested newt 'hotspot' in North East Wales. An understanding of the effects of development and changes in pondscape connectivity, and their impacts on conservation status, can inform sustainable development whilst delivering positive conservation benefits in the long term.

**Q: Martyn Evans, Monmouthshire County Council: How do you deal with cleaning records and verifying?**

A: We check existing records against Google Earth and other information. Single records can play an important contribution. We are extending the model to South Wales.

**Q: Hilary Kehoe, Anglesey Grazing Animals Partnership (AGAP): How do we achieve grazing management within small areas?**

A: This lies within the realm of Biodiversity Offsetting using qualitative techniques. Ponds becoming senescent are an example: we can add another pond to link the area to replace the one that is being lost.

**Dr Peter Evans, Sea Watch Foundation / University of Bangor. The challenge of Spatial Management for mobile species: the case of marine mammals**

**Presentation**

**Talk synopsis**

Marine mammals (and birds) pose a particular challenge for management. Except for those that have discrete breeding or resting sites (seals, nesting seabirds), they constantly move around. The waters around Wales host a rich diversity of marine mammal species (20 recorded, 6 regular). Each of the regular species has its own distinct distribution, although species richness is highest in the southernmost Irish Sea. Within the range of a species are high-density hot spots; these often overlap across taxa and can be linked to bathymetric and/or oceanographic features. So far, these have not been the particular focus of spatial management in the form of marine protected areas. Three species of marine mammal in Wales require Special Areas of Conservation under the EU Habitats Directive: these are the bottlenose dolphin, harbour porpoise, and Atlantic grey seal. Using as an example the results of long-term research and monitoring of bottlenose dolphins undertaken on behalf of NRW, the challenges and potential solutions for spatial management are considered.

**Q: What activities limited or introduced in SACs benefit species?**

A: Monitoring, regulatory activity to prevent illegal activity. Fishing limited to potting and scallop fishing.

**Neil Riddle, Forestry Commission England. Linking woodland Management and Species Recovery**

**Presentation**

**Talk synopsis**

Much woodland wildlife depends on particular features of woods, which are now less available due to past declines in woodland management. Forestry Commission England and the RSPB are working together with woodland owners, agents and contractors to stimulate management of woodlands, using bespoke English Woodland Grant Scheme options. Prescriptions were jointly developed for a targeted Woodland Improvement Grant, contributing 80% of standard forestry costs, for activity such as; one off restructuring fellings to favour native canopy species and encourage an under storey of shrub species; re-establishing coppice, opening up rides, and enhancing the woodland edge. Since 2009, the Project has provided advice to owners of 15,000 ha of woodland and secured grant support for more than 8,000 ha of it in target areas, which as well as benefiting woodland wildlife

across the landscape, is also stimulating local timber and woodfuel production. Our work in the East and East Midlands shows that working to recover woodland wildlife also provides opportunities to boost local rural economies.

**Q: Did you monitor the bird population to measure success?**

A: Yes. RSPB were contracted to carry out bird monitoring over a 3 year period covering 1000Ha of upland and lowland habitat. There is a need to repeat the surveys, possibly through PhD students. Measures of success need to be considered over ~5-20 year period.

**Q: Were there any issues with management on Governments land?**

A: This wasn't an issue as only 18% of forestry is on government land in England. I understand the situation is different in Wales.

**Q: Were any predator control measures carried out including grey squirrel and magpie control?**

A: No. Deer management measures were carried out in lowland areas of forests.

## Day 2

### Morning Session

Chair: Matthew Quinn, Director of Natural Resources and Food, Welsh Government

### **Ceri Davies, Executive Director for Knowledge, Strategy and Planning, Natural Resources Wales. Biodiversity and ecosystems – Natural Resources Wales approach**

#### Presentation

#### **Talk synopsis**

The presentation will give a very quick introduction to Natural Resources Wales, its purpose and its role. This is followed by a brief overview of the type of activity undertaken for biodiversity in the context of the EU and global targets. This leads onto an exploration of the drivers of change how these link to wider environmental challenges faced by Wales. The presentation examines how achieving ambitious targets to halt biodiversity loss and ecosystem degradation by 2020 requires a different approach. While building on the successes of the past it is necessary to realise opportunities of a more integrated Ecosystem Approach not just to biodiversity conservation but also to address the other challenges. Opportunities exist to build biodiversity considerations into decisions and actions across the remit of Natural Resources Wales. In doing so the organisation is starting to set a new direction which is framed by the Ecosystem Approach and the need to restore ecosystem resilience and underpinned by evidence. This will require engagement with existing partners



and also developing working relationships with new sectors. Science is at the heart of this approach and Natural Resource Wales will be supporting Welsh Government to identify gaps in knowledge and seek ways to fill these, to make data available in a format that be used and to encourage the public and others to get involved through citizen science. This is not the sole responsibility of Natural Resources Wales and so it is keen to work with and support the Wales Biodiversity Partnership specialist groups and the regional and local partnerships to deliver this extensive agenda.

### **Dr Julia Jones, Bangor University. Incentivising conservation of biodiversity and ecosystem services**

#### **[Presentation](#)**

##### **Talk synopsis**

The language of markets is increasingly used throughout the conservation world. In this talk I'll review important concepts such as mitigation banking, biodiversity offsets, and payments for ecosystem services. I will highlight what they can offer and pitfalls the conservation community should beware of as market mechanisms for conservation are increasingly applied in the Welsh context.

### **Mike Townsend, Woodland Trust. Farm woodland creation and river catchment management experiences in mid Wales-the Pontbren project**

#### **[Presentation](#)**

##### **Talk synopsis**

The Pontbren Project is an innovative approach using woodland management and tree planting to improve the efficiency of upland livestock farming. In 2001 the Pontbren farmers came together as a group of ten, managing a total of 1000 ha of farmland across the catchment. Over the past 15 years their innovations have been subject to field research on the environmental benefits of farm woodland. Trees and woodlands are now an integral part of farm management in Pontbren demonstrating the benefits for upland livestock farming, water management, wildlife and landscape.

The Pontbren project worked because it was led throughout by the farmers who actively took an innovative approach, and who were willing and able to interest and involve others in active collaboration.

The undoubted success of Pontbren in agricultural, environmental, scientific and social terms has provided some critical lessons for farmers and policy makers seeking a better way of delivering essential environmental services as part of productive upland livestock farming in the UK.

## **Hilary Kehoe, Anglesey Grazing Project. Grazing projects- linking management for biodiversity with production**

### **Presentation**

#### **Talk synopsis**

The presentation will give case studies illustrating how AGAP and other projects across the UK work with farmers to enable their farming systems to deliver conservation outcomes as part of a viable farm enterprise.

Problems encountered by those wanting to reverse the abandonment of sites and restore grazing will be discussed with some site examples showing the steps taken to achieve sustainable grazing management.

#### **Panel discussion with the morning presenters chaired by Matthew Quinn**

##### **Q 1 – Robin Probert, Kew Gardens Seedbank to Mike Townsend: Are farmers having problems sourcing native trees? Are seeds being collected in situ on farms?**

A1 – Mike Townsend: There were problems to begin with, in procuring suitable seed. First step was to liaise. One outcome developed was a farmer's friendly woodchip mulch.

##### **Q2 – Martyn Evans, Monmouthshire CC: Do you have plans for Wye and Usk to develop a Pontbren approach?**

A2: We need leads, the support, and access to funding for such initiatives. Mechanisms are needed. NRW will be looking at land management techniques for flood management, and will be considering water quality and quantity.

A2– Ceri Davies: NRW are looking across sectors including utilities e.g. Severn Trent, Welsh water, at wider scale initiatives. Mechanisms for slowing down water and retaining water quality in catchments. Where we can, we need to integrate measures into existing mechanisms. Measures need to work at farm scale. The RDP currently only addresses income foregone.

##### **Q3: Tristan Hatton-Ellis - Compensation foregone: A lot of waste on farm is waste for farmers too.**

A3: Hilary Kehoe: We need people on the ground to go around and share good practice as with AGAP or Pontbren.

##### **Q4 – John Harold, Cyngor Gwynedd - Positives of Pontbren project: Clearly identifiable gains like Pontbren don't always provide the special management and niches required for biodiversity.**

A4: Does adopting the Ecosystem approach risk biodiversity losses? There will be win-wins - but not for all. PES needs to be spread out to directly fund specific actions to address these gaps. PES needs to be conditional to ensure demonstration of positive outcomes for specific species. Support mechanisms need to be flexible.

A4: Matthew Quinn: An analogy exists between the focus on ecosystems, and the approach taken to public health.

A4: Ceri Davies: Short-term funding mechanisms often result in piecemeal gains.

**Q5: Anna Williams, North Wales Wildlife Trust: AGAP work is really important. Where will funding come from to continue AGAP work?**

A5: Hilary Kehoe: PONT funding runs out in February. The Wildlife Trust may take PONT on but this is undecided.

A5: Ceri Davies – Other funding opportunities need to be considered, such as the REF Fund. NRW external funding officers can offer support. The £6m fund could be used to invest in capacity. NRW are looking at funding opportunities from HLF etc to provide match funding.

**Q6: Colin Russell – How will Biodiversity Offsetting operate?**

A6: Successful schemes are operating in USA (Wetland Banking Scheme) & Australia. 3<sup>rd</sup> party sets up a bank with a regulatory framework. For every unit of damage caused by development the developer has to buy certain number of credits to be spent on wetlands management. The RSPB's response includes provision of safeguards e.g. the site should be as physically close to the development site as possible. Certain habitats should be excluded from offsets e.g. limestone pavement. Spatial implications should be noted. Correlation between social deprivation and poor biodiversity.

**Q7: Leanne Bird, Ceredigion County Council - Reviewing Glastir for the final time. The Review should note how successes have been achieved by Hilary Kehoe, AGAP.**

**Q8: Jennifer Kelly, NRW - Working with landowners – what about marine?**

A8: Offsetting could be brought in for specific marine protected areas e.g Madagascar fishermen practice - demonstrated how their actions affect the condition of marine sites and features.

**Q9 – Ian Spence, BSBI VC Recorder to Ceri Davies: How will you engage with recorders to collect evidence gaps? Do we have a place?**

A9: Ceri Davies: Yes, you do, as NRW can't cover everything. We need to draw on evidence to demonstrate our actions having results. We need to share our data. Currently discussing with Chris Lea how we bring all our evidence together. COBWEB initiative uses Citizen Science.

**Q10: Erica Dixon, Vale of Glamorgan County Council to Julia Jones – principles of offsetting. Our experience shows this is not working very well locally e.g. newt pond creation.**

A10: Julia Jones– Progress in the environment is not as good as was hoped; the issue could be scale. Agri-environment schemes are PES. Biodiversity Offsetting can be in place once mitigation has been addressed; it's how to address the residual. There is a desire to generate markets for Biodiversity Offsetting but there is a potential danger in this. Timescale of benefits also needs to be considered.

**Q11– Peter Frost, NRW – Are we being ambitious enough? Why aren't we extending the example of Pontbren to every catchment?**

A11: Many barriers – finance and not enough individuals in the farming community to take initiatives forward.

A11: Ceri Davies: One barrier is timescale. There is more long-term certainty in a concrete structure than this kind of scheme. We need the evidence to demonstrate the use and value of schemes. The Minister is asking NRW to consider land-use in managing flood risk.

A11: Julia Jones: We need to close the loop, as actions taken to mitigate the cost of damage are not met by the people who bear the cost. There is a knowledge gap in how we scale up at a catchment scale, from local examples of positive work. A pilot or large project would be useful. Sustainable land management needs to go beyond flood risk PES. Other PES benefits could be achieved if rolled out across Wales.

A11: Ceri Davies: There are examples of PES already benefitting communities in Wales e.g. Greener Grangetown project, Bury inlet and Dŵr Cymru projects.

**Q12: When was the original tree cover removed on Pontbren holdings?**

A12: David Jenkins (Coed Cymru) on behalf of Mike Townsend: 289AD; evidence of a Roman road built across the area which required tree removal either side of the road within a bow-shot, to protect those travelling on the road from attack. High forest is evidenced from fallen remains. Contour hedgerow removal more recent across land which has had a major negative impact on water retention.

**Q13/Statement: Diana Reynolds – System-based thinking – create more similar, but different, schemes like Pontbren and scale up.**

**Q14: Colin Keyse, National Beekeeping Centre – Experience of Community grant aid panels is that farmers are not considered part of the community focus.** There are opportunities though for tremendous breadth of gain across environmental, social and economic sectors. Evidence has shown that people existing on subsidies are often isolated and suffering from stress, but when working in partnership stress levels were shown to have dropped dramatically. There is a reluctance to allow farmers to manage grants themselves. However, farmers appreciate they are responsible for careful stewardship of the public money e.g. in Pontbren project, and take their responsibilities seriously. Where possible, links with local suppliers and contractors are used. It is important to add in social and economic gains as well as biodiversity, to future support schemes. We need to measure change resulting from projects and share results far and wide.

**Matthew Quinn: closing thoughts** – We need to be less risk averse and move forward. Flexibility needs to be built into schemes and different ways of doing things made possible.

## Afternoon Session

### **Dr Katherine Baldock, Urban Pollinators Project, University of Bristol** **Urban pollinators in the UK landscape: - their ecology and conservation.**

#### Presentation

##### **Talk synopsis**

Pollinators supply a crucial ecological service by pollinating crops and wild flowers. Declines have been reported for major pollinator groups in the UK and globally. Finding ways to improve conditions for pollinators is a major challenge. Urban environments are growing globally and flower rich oases in otherwise uninviting city habitats could potentially support large numbers of pollinators.

In this national-level study funded by the UK Insect Pollinators Initiative we are assessing the value of urban habitats in the UK for insect pollinators. The project will answer three questions:

1. How does the pollinator biodiversity of urban habitats compare to farmland and nature reserves?
2. Where are the hotspots of pollinator biodiversity in urban areas?
3. How can we help conserve pollinators in urban areas?

To address the first two questions we are using a flower-visitor network approach to sample insect flower visitors, the flowers they visit and the interactions between them in a range of urban and non-urban habitats across the UK. To address the third question we are running a national-scale experiment that involves planting fifteen large flower meadows in each of Bristol, Reading, Leeds and Edinburgh and testing their impact on pollinator diversity and population growth.

I will summarise the main findings from the first phase of the project, comparing pollinators in urban areas, farmland and nature reserves, and outline research currently underway for the second and third phases.

The project works in partnership with conservation practitioners from local councils and Wildlife Trusts and aims to provide practitioners with the information they need to be able to conserve pollinators in towns and cities.

##### **Q1/2. Tristan Hatton-Ellis, NRW.**

Did the study consider the role of various plant species and horticultural varieties with respect to their attractiveness to pollinators?

Was sampling carried out at various intervals during the day and were night pollinators considered e.g. Moths

A: Non-native horticultural plant species area challenging so the surveys tended to focus on more natural sites. Recognised that some cultivated plant varieties will be better for pollination than others and encourage the public to plant accordingly.

Survey times were varied on the various sites to monitor pollinator activity. Night time pollination surveys were not conducted and we have to recognise this as a limitation of the study.

## **John Clark, Gwent Levels Partnership/ RSPB Cymru. Living Levels – landscape-scale conservation in practice**

### **Presentation**

#### **Talk synopsis**

An explanation of the staged process in establishing a landscape-scale conservation partnership project. The 'Living Levels' project aims to focus on three pilot areas in the Gwent Levels, and deliver improved ecological connectivity and biodiversity benefits. This will be achieved through a combination of practical action on the ground and partnership working at NGO and Government level to engage with landowners, local communities and businesses about the rich natural and cultural heritage of the Gwent Levels.

The leading partners are Gwent Wildlife Trust, RSPB Cymru and Natural Resources Wales, with close advice from the Caldicote and Wentloog Levels Internal Drainage Board, Glamorgan and Gwent Archaeological Trust, CADW and Bumblebee Conservation Trust

## **Dr Katie Medcalf, Environment Systems**

### **Ecological network opportunity mapping; examples from south Wales and Dorset**

### **Presentation**

#### **Talk synopsis**

An introduction to the methodology of network mapping and how it ties in with mapping other ecosystem goods and services in Bridgend under the NRW, SCCAN methodology.

Real world examples from south Wales and Dorset will be presented to gain an understanding of the hidden value of ecosystems and the best place to undertake habitat work in terms of

## **Roy Tapping Cofnod (North Wales Local Records Centre)/Welsh LRCs**

### **Evidence for an Ecosystem Approach:-a Local Record Centre perspective**

#### **Presentation**

Roy presented a talk with a backdrop of images. A full transcript of the talk can be obtained by contacting [Roy Tapping](#).

#### **Talk synopsis**

Anyone who has studied aspects of Ecology will know what is meant by an Ecosystem, but how does this translate to the concept of an 'Ecosystem Approach'? Many volunteer field recorders, often experts in their area of biology, find this an alien concept and one which they feel disengaged with. Yet these same people are being tasked with gathering some of the information which will help manage and monitor our ecosystems. How do we change this situation, making a purposeful and coordinated approach to gathering the evidence we need? This talk will suggest a way forward and hopefully leave us with some food for

thought on how we can better gather and use evidence following the principles of the 'Ecosystems Approach'.

### **Closing comments by the Chair**

Mathew Quinn thanked Alys Edwards on behalf of the partnership for all her hard over the past 3 years and wished her well in her new role at the Sustainable Places Institute in Cardiff. Matthew also thanked all the speakers, contributors and delegates in making the conference a success. He added that the Welsh Government committed to the agenda and there are opportunities to build on the conference in future environmental planning and integration and the chair encouraged delegates to hold Welsh Government to account and continue the dialogue with the forthcoming Environment Bill White Paper and Natural Resource Planning.

## **Workshop Sessions**

### **Day 1**

#### **Practical application of habitat network maps in planning action for terrestrial biodiversity. Jim Latham and Jan Sherry, Natural Resources Wales**

This workshop followed up ideas presented in a talk earlier in the conference, giving the opportunity to discuss the practical application of network maps and to work through specific examples. A selection of paper maps was available, with access to GIS for real-time 'exploration' if required. The workshop encouraged people to engage with the maps, focussing on understanding what they can (and cannot) be used for, and developing ideas for actually getting them used.

The workshop was unfortunately hampered by loss of one the leaders to illness and a technical hitch that meant the introductory presentation and workshop instructions couldn't be given fully\*. Nonetheless, there was some fruitful round table discussion, and some of the main points arising from it are presented below. The network maps are continually being developed and refined, and we will take this useful feedback into account.

Main points:

- Participants grasped the idea of the networks (following some improvised tuition!), and there was good discussion about their meaning, and the degree to which lines on maps like this could represent the ecological processes: there is inevitably a balance to be made between complexity and usability.
- There was appreciation that networks helped to highlight the interactions between habitats, for example showing that habitats can be complementary and contribute to the connectivity of each other; overlapping networks may indicate biodiversity hotspots (for example, ffridd).

- Many suggestions were made for additional layers that could be used in conjunction with habitat network maps to help make practical decisions. These included: landowner information, habitat condition, planning information, soils, geology, WFD, topography, microclimate, and designations.
- The need for caveats on the maps was stressed by many, and dangers pointed out, for example unquestioningly using woodland maps as 'areas to be planted'. (N.B. we are well aware of these problems, and do try to emphasise the scope and limitations of these maps.)
- There should always be ground truthing, surveys and landowner involvement when these maps are used to inform actual decisions on the ground. Guidance on a 'process' would be useful.
- Various suggestions were made for ecological aspects missing from the maps, or ideas for developing them. These included: individual species, hedges, heterogeneity within habitats, ancient woodland, and wood pasture.

\*Acknowledgement: many thanks to Katie Medcalf for stepping in to help facilitate and record discussion.

## **Wales Biodiversity Strategy- context and next steps towards strategy development. Dai Harris, Welsh Government**

### **Introduction:**

Wales is signed up to the European Union Biodiversity Strategy (EUBS) and associated targets for 2020 in response to the Aichi targets set by the Convention on Biological Diversity. As part of this commitment Wales must have its own Biodiversity Strategy in place by 2015 to help achieve a halt in the loss of biodiversity and where possible reverse the decline by 2020. The decline in species and habitats has been highlighted by the recent State of Nature Report and Wales is committed to take action to address these issues as announced at the summit at the Royal Welsh Show.

### **Aims of workshop:**

- To build on work initiated by the Wales Biodiversity Strategy Board to identify priorities for biodiversity in Wales and mechanisms to achieve our goals.
- Build on the outcomes of a Strategy Board workshop held in June Explore how biodiversity can be mainstreamed into everyday decision making
- Explore how we can work together to achieve the step change required to deliver truly sustainable management of our natural resources.
- Use outcomes to further develop a *Nature Recovery Plan* for Wales



### Facilitated sessions:

1. Defining outcomes / setting priorities – Dai Harris (WG)
2. Mainstreaming Biodiversity – Caryn Le Roux (WG)
3. Achieving a step change – Diana Reynolds (WG)

### Feedback from sessions:

#### Question 1: Defining outcomes/setting priorities:

- Wales meets its domestic, European and global obligations to biodiversity
- healthy functioning and resilient ecosystems
- don't waste money on lost causes
- value for money – don't spread funding too thinly
- identifying areas of high biodiversity (including marine sites)
- generalist vs specialist approach
- fit for purpose agri-environment schemes
- connectivity
- bigger, better spaces for nature
- achievable, measurable targets
- long term monitoring programme
- what is 'good enough'
- caution over selection of baselines (use spp density per km<sup>2</sup> for e.g.)
- marine sea bed mapping

#### Question 2: Mainstreaming biodiversity:

- using images/iconic birds and other species as communication tool
- making it relevant to different audiences without being too negative
- curriculum – outdoors – experiential – Forest Schools/Ecoschools model
- demonstration
- local ownership and pride
- benefits articulated – links from spp/habs to life support systems/processes – what does biodiversity do for you? (Ad agencies)
- link to businesses e.g. sustainable development, wildlife friendly farming

#### Question 3: Achieving a step change:

The Minister, Alun Davies' pointers (from his key note speech)

- Avoid pointing fingers and blaming others
- Be generous to those with whom we haven't previously agreed
- Be far sighted and ambitious
- Do stuff; don't just talk about it
- Leave the conference/meeting/etc with a determination to do something

### Workshop outcomes:

- Listening
- All legs of the SD chair are broken; listen to each other and link our challenges
- We have a wealth of resource and information; hear it and use it
- Recognise what it is that we appreciate about being in Wales and each other
- Make links between different people and places e.g. urban and rural
- Understanding
- Share what we know
- Learn from each other
- In the past we didn't understand the true cost of extracting services from the environment; understand and act on this now
- Make intelligent tough decisions that deliver outcomes
- Embrace risk as a way of learning
- Sign post interesting points and places e.g. art on the coastal path
- Innovating
- Look at environmental, social and economic challenges as an opportunity to balance not a conflict
- Think inventively about how to create habitats as part of all activity from the start
- Find ways to tap into people's generational connection with the land that increase their connection with the environment
- Coax rather than dictate the outcome
- Incorporate clever monitoring

### Using habitat suitability models to prioritise survey and conservation action for mammals in Wales - case studies on harvest mice, lesser horseshoe bats, rare woodland bats and water voles. Jean Matthews and Liz Halliwell, Natural Resources Wales

Abstract: This workshop introduced the landscape scale habitat suitability models recently produced for selected mammals in Wales. It focused on how the models were produced and how they can be used to deliver priorities for survey and conservation action. The workshop encouraged participants to suggest ideas for local implementation through the identification of potential projects and discussed available resources (funding and materials). The workshop was aimed at those involved in implementing local projects and LBAPs.

#### Workshop report:

For bats – two different predictive models were described. The lesser horseshoe bat habitat suitability maps came out of the “Landscapes for lessers” project. This aims to promote landscape scale conservation projects that will benefit this highly protected species whilst also considering other species or habitats that may benefit from the same conservation actions, e.g. hedgerow management providing corridors for bat and habitat for dormice. The purpose of the Rare Woodland Bats Project is to help target volunteer survey effort and provide training and resources, leading to improved distribution data and focussed advice on habitat management. A series of maps showing key areas of importance for water voles has been produced by the Wildlife Trusts.

Maps developed to identify areas of habitat suitable for harvest mice, lesser horseshoe bats and rare woodland bats in Wales were introduced to the workshop. The methods used to develop the maps and the associated caveats were explained. Opportunities for improving the maps were discussed and it was suggested that future updates to the maps could use additional environment variables, similar to the approach taken by Amphibian and Reptile Conservation (ARC) to produce favourable conservation status maps for great crested newts and identifying opportunities for creation of habitat corridors. The use of historical maps was discussed as a way of providing a baseline against which habitat loss or gain could be measured.

All the models can be used to help focus conservation effort and inform land use decision makers. There is much to gain from a similar approach across different taxa. The need for feedback by those using the maps was emphasised. Participants welcomed the resources provided. Further copies of reports and cds will be made available.

Jean Matthews and Liz Halliwell,  
Mammal Ecologists, Natural Resources Wales

## **New approaches to delivering actions on Natura 2000 sites. Kathryn Hewitt, Natural Resources Wales**

### **Workshop presentation**

The workshop started with a presentation by the LIFE Natura 2000 Programme team highlighting some new approaches to delivering conservation management and restoration from around the world. Workshop delegates were then asked about their ideas for new funding and management mechanisms that could be used to improve the condition of the species and habitats features on Natura 2000 sites in Wales.

### **Ideas for new funding and management mechanisms - 'Ideas Pool'**

#### **Farming licence in N2K sites**

Licence the activity of farming, with SAC's being pilot areas.

#### **Training scheme for farmers**

Free training for farmers on how to farm for wildlife-friendly produce and conservation.

#### **Outcome driven management plans**

The requirement to meet specific agreed prescriptions as part of a management plan or agri-environment scheme has led to problems such as under- or over-grazing because the prescriptions cannot take into account seasonal, weather and other natural variations. Outcome-driven agreements would be more successful.

This approach requires good quality advisers, and it raises challenges regarding how outcomes would be measured?

It also requires better communication with the farming community and requires cultural

change by conservation bodies, for example, by changing the terms we use.

This is a form of Payment for Ecosystem Services.

**Simplification / streamlining of regulation**

The large number of regulations hinders management as the landowner may not know about, or understand the legislation, resulting in nothing being undertaken in case they make a mistake. There is a need to streamline regulation.

This can be a particular issue on commons.

**Marketing of local produce**

Marketing of local produce, or produce from sites or catchments, has to be key.

Farmers’ co-ops can do the marketing.

A good example is saltmarsh lamb from hefted sheep on the saltmarsh. But the market tend only to be local.

Promote diversification in our eating – eating horse meat would benefit the uplands!

**Grazing projects involving sourcing of stock**

We need a mechanism for sourcing stock to manage neglected areas.

Use of Single Farm Payment to support graziers. The SFP is not claimed by the landowner (e.g. conservation body) but passed to the grazier, which makes the grazing of low grade land more viable.

RDP Leader groups could be used to help marketing of produce and organise sourcing of stock.

**Research and new technologies**

We need innovation and research to develop and promote the use of new technologies for the use of, for example, biomass from wildlife sites to produce biocarbon based products.

E.g. Harvesting areas of *Molinia* near Elenydd to produce bicarbon products.

The group then selected one mechanism to discuss in greater depth, including an examination of the benefits and constraints. The selected subject was:

**Targeted education / Training scheme for land managers and farmers**

Benefits	Constraints
Enable us to achieve objectives through appropriate communication.	There are not enough specialists in education in conservation sector, and lack of communication skills.
Specific objectives can be achieved by focusing the projects carefully.	This approach is resource intensive and limited resources are available.
You can utilise existing communication mechanisms or volunteers.	Need to use a wide variety of communication mechanisms.

Need to review previous schemes that worked and use this to inform new schemes.	Need to understand the most effective mechanisms to communicate with the farming community.
	Need high level of support and good quality advisors.
	Education projects may only be short term.
	Language and concepts are too technical and need 'translating' into plain Welsh/English.
	There is a risk of patronising people.

## LIFE NATURA 2000 PROGRAMME FOR WALES

### New approaches for managing and funding Natura 2000



*Below are a number of examples of new mechanisms, under broad headings, that have been identified by the LIFE Natura 2000 Programme.*

TYPE OF MECHANISM	EXAMPLES	INFORMATION SOURCES
<b>Marketing &amp; Labelling of Produce</b>	<ul style="list-style-type: none"> <li>• Rhön Biosphere Reserve Germany marketing &amp; labelling</li> <li>• Entlebuch Biosphere Reserve Switzerland marketing &amp; labelling</li> <li>• Marine Stewardship Council environmental standard for sustainable fishing</li> </ul>	<p><a href="http://www.bfn.de/fileadmin/MDB/documents/themen/internationalernaturschutz/2011-AfriBR-14-Pokorny_Rhoen.pdf">http://www.bfn.de/fileadmin/MDB/documents/themen/internationalernaturschutz/2011-AfriBR-14-Pokorny_Rhoen.pdf</a></p> <p><a href="http://www.biosphaere.ch/de/regionale-produkte">http://www.biosphaere.ch/de/regionale-produkte</a></p>
<b>New Legal &amp; Regulatory Mechanisms</b>	<ul style="list-style-type: none"> <li>• US coastal erosion management permit programme</li> <li>• Swedish air quality regulation</li> <li>• Rationalisation and streamlining of environmental legislation – Welsh Environment Bill (due 2015)</li> <li>• Proposed EU regulation on invasive alien species.</li> </ul>	<p><a href="http://www.dec.ny.gov/permits/6064.html">http://www.dec.ny.gov/permits/6064.html</a></p> <p><a href="http://wales.gov.uk/topics/environmentcountryside/consmanagement/natural-resources-management/environment-bill/?lang=en">http://wales.gov.uk/topics/environmentcountryside/consmanagement/natural-resources-management/environment-bill/?lang=en</a></p> <p><a href="http://ec.europa.eu/environment/nature/invasivealien/">http://ec.europa.eu/environment/nature/invasivealien/</a></p>
<b>Taxation &amp; Levies</b>	<ul style="list-style-type: none"> <li>• Biodiversity Offsetting in England e.g. Essex Pilot Project</li> <li>• Conditional Exemption Tax Incentive Scheme (Inheritance tax)</li> <li>• Use of Section 106 agreements for N2K management e.g. Caeau Mynydd Mawr SAC</li> <li>• Visitor/tourism levies</li> <li>• Conservation Easements</li> </ul>	<p><a href="http://www.essex.gov.uk/Environment%20Planning/Environmental-Issues/local-environment/Wildlife-and-Biodiversity/Documents/Comprehensive_guide_to_offsetting.pdf">http://www.essex.gov.uk/Environment%20Planning/Environmental-Issues/local-environment/Wildlife-and-Biodiversity/Documents/Comprehensive_guide_to_offsetting.pdf</a></p> <p><a href="http://www.hmrc.gov.uk/heritage/exemption.htm">http://www.hmrc.gov.uk/heritage/exemption.htm</a></p> <p><a href="http://www.cararthenshire.gov.uk/English/environment/planning/Planning%20Policy%20and%20Development%20Plans/Local%20Development%20Plan/Documents/Draft%20SPG%20Caeau%20Mynydd%20Mawr%20SAC.pdf">http://www.cararthenshire.gov.uk/English/environment/planning/Planning%20Policy%20and%20Development%20Plans/Local%20Development%20Plan/Documents/Draft%20SPG%20Caeau%20Mynydd%20Mawr%20SAC.pdf</a></p>

<p><b>Payment for Ecosystems Services</b></p>	<ul style="list-style-type: none"> <li>• SCAMP (Sustainable Catchment Management Programme) in Bowland Fells, Lancashire</li> <li>• LIFE Nature: Restoration of active blanket bog in Berwyn and Migneint SACs</li> <li>• River Fowey PES demonstrator project</li> <li>• Wareham managed alignment</li> <li>• Aral Sea wetland restoration project</li> <li>• Tamar catchment managed realignment</li> <li>• Reconnecting the Broads and the Fens</li> </ul>	<p><a href="http://corporate.unitedutilities.com/scamp-index.aspx">http://corporate.unitedutilities.com/scamp-index.aspx</a>  <a href="http://www.blanketbogswales.org/">http://www.blanketbogswales.org/</a>  <a href="http://ekn.defra.gov.uk/resources/programmes/pes-pilots/fowey/">http://ekn.defra.gov.uk/resources/programmes/pes-pilots/fowey/</a></p>
<p><b>Targeted Education and Awareness Raising</b></p>	<ul style="list-style-type: none"> <li>• Love Your Lakes project: Phosphate reduction in the Bassenthwaite and Windermere lake catchments.</li> </ul>	<p><a href="http://www.bassenthwaite-lake.co.uk/">http://www.bassenthwaite-lake.co.uk/</a>  <a href="http://issuu.com/amymcloughlin/docs/love_your_lakes_report_2011?e=2940830/3198061">http://issuu.com/amymcloughlin/docs/love_your_lakes_report_2011?e=2940830/3198061</a>  <a href="http://www.windermere-reflections.org.uk/projects/choices-for-a-greener-future/">http://www.windermere-reflections.org.uk/projects/choices-for-a-greener-future/</a></p>
<p><b>Other</b></p>	<ul style="list-style-type: none"> <li>• Ecotourism</li> <li>• Ecosystem based management</li> </ul>	<p><a href="http://www.ecotourism.org/what-is-ecotourism">http://www.ecotourism.org/what-is-ecotourism</a>  <a href="http://en.wikipedia.org/wiki/Ecosystem-based_management">http://en.wikipedia.org/wiki/Ecosystem-based_management</a></p>

## **INNS...dealing with the other side of 'connectivity'. Nick Biruala, WBP Invasive Non-Native Species Group/Natural Resources Wales**

### **Workshop Overview**

Invasive Non-Native Species (INNS) are one of the biggest threats to biodiversity and have considerable economic and social impacts. 'Connectivity' in an economic and social as well as ecological context is the reason why INNS are such an issue. How to best deal with INNS is gaining increasing focus through recent developments including a potential EU legislative instrument, a GB INNS Strategy review and a National Assembly for Wales Inquiry. This workshop's presentations highlighted these and specific terrestrial, marine and freshwater developments covering biosecurity, pathways management and awareness raising. The workshop sessions then explored the challenges or barriers for delivering more co-ordinated INNS action in Wales and how these might be addressed - the tables below summarise the session outputs.

### **Presentation Key Points**

#### **UK/Welsh Government Update**

- Welsh Government has long been concerned about the actual and potential impact of INNS. It has been estimated INNS cost the UK economy at least £1.8 billion annually as well as threatening native wildlife and ecosystems. Increasing trade, movements of people, climate change and the geographic proximity mean the Welsh Government welcomes a coordinated EU Strategy to tackle INNS.
- When the INNS Framework Strategy for GB was launched in 2008, the Government committed to review it after 5 years. The review covers strategic goals and governance and aims to put the Strategy in a broad international context.
- The process of integrated natural resource management will need to ensure that management strategies to ensure resilient ecosystems include considering the threat of INNS and build in strategies for controlling invasive species wherever possible.

#### **Contact - Dave Thomas, Head of Seeds & Pesticides, Welsh Government**

[david.thomas4@wales.gsi.gov.uk](mailto:david.thomas4@wales.gsi.gov.uk)

#### **Terrestrial key points**

- Many of the major invasive non-native species issues are well established and widespread across Wales, Rhododendron ponticum and grey squirrel for example.
- Our landscape provides connectivity that allows movement of species, this is positive for our native species but also allows non-natives to move as well.
- Managing the impacts needs to be:
  - At the Landscape scale
  - Catchments are an appropriate scale to work at and there are examples of successful projects
  - Multiple land owners need to be engaged to coordinate action
  - Partnerships
  - Long time scales (not a one off job)



- Monitoring

#### **What could we do better?**

- Recording Invasive species
- Awareness raising - the public & by sector
- Holistic guidance
- Watching our Borders
- **Prevention is cheaper, more achievable and therefore better than cure**
  - American Pitcher Plant
  - Asian Hornet
  - Oak Processionary Moth

Contact - Chris Tucker, Biodiversity & Heritage Officer, Natural Resources Wales  
[chris.tucker@cyfoethnaturiolcymru.gov.uk](mailto:chris.tucker@cyfoethnaturiolcymru.gov.uk)

#### **Marine key points**

- The Marine Pathways Project aims to protect marine biodiversity and industry by managing the pathways of spread of marine invasive non-native species across UK and Ireland seas.
- It's a multi partner project that over the next 2 years will establish and trial early warning networks – inshore and offshore, commission work to refine the hotspots, vectors, and horizon scanning data that we already have, work with industry to develop codes of practice for marina operators, and recreational boat users, set up volunteer recording projects and, run demonstration projects on the control and management of invasive marine species.
- Control of the carpet seasquirt at Holyhead, North Wales has been ongoing since 2010. Work is now managing low level outbreaks rather than large scale eradication events. A lessons learned paper is in preparation.
- A separate project looking at the development of an isolation berth to treat the hulls of vessels when they arrive/leave the marina is under development.

Gabe Wyn, Intertidal & Coastal Ecosystems Team Leader, Natural Resources Wales  
[gabrielle.wyn@cyfoethnaturiolcymru.gov.uk](mailto:gabrielle.wyn@cyfoethnaturiolcymru.gov.uk)

#### **Freshwater key points**

- Can be very difficult to control, can spread rapidly and reach very high densities ie outcompeting native aquatic biodiversity & reducing ecosystem services (eg fouling boats, blocking waterways)
- Some are widespread (eg bankside Japanese knotweed, Himalayan balsam) but even INNS with more localised populations pose a very serious threat eg invasive ('killer') shrimp
- Useful info on controlling aquatic invasive plants -  
Managing Non Native Plants  
<https://publications.environment-agency.gov.uk/pdf/GEHO0410BSBR-e-e.pdf>  
The Japanese Knotweed Code of Practice  
<http://www.environment-agency.gov.uk/homeandleisure/wildlife/130079.aspx>

- ‘CHECK, CLEAN, DRY’ & ‘BE PLANTWISE’ biosecurity advice and additional info on managing freshwater INNS on GB Non Native Species Secretariat website - <https://secure.fera.defra.gov.uk/nonnativespecies/checkcleandry/index.cfm>
- New tools are being developed to support freshwater INNS management eg aquatic biosecurity eLearning package & identification/reporting ‘phone apps eg Plant Tracker
- INNS are a significant risk for achieving ‘Good Ecological Status’ under the EU’s Water Framework Directive (WFD) – there are 25 high-risk INNS
- NRW is seeking input on proposals for action for the WFD 2nd Planning Cycle (2015-21) eg contain, eradicate or control/slow the spread; catchment scale measures, adopting & promoting biosecurity good practice ‘Check, Clean, Dry’ etc
- - **PLEASE PROVIDE YOUR VIEWS before 22<sup>nd</sup> Dec 13** - <http://naturalresourceswales.gov.uk/our-work/consultations/list-of-current-consultations/challenges-and-choices-consultation/?lang=en>

Contact - Nick Bialynicki-Birula, Senior Advisor, Natural Resources Wales  
 nick.bialynicki-birula@cyfoethnaturiolcymru.gov.uk

### Workshop Session 1 – Pathways / biosecurity

	Group 1 (Chris / Matt)	Group 2 (Gabe / Jo)
Q1 What pathways can you identify?	No sheet for this question	<ol style="list-style-type: none"> <li>1. Recreational activity, e.g. Crassula spread by dog walkers / dogs. * *</li> <li>2. Live release of animals, e.g. for commercial (e.g. signal crayfish) or recreational activities (angling). * *</li> <li>3. Traffic at development sites – lack of biosecurity causing spread of plant parts on tyres, tracks etc.</li> <li>4. Dumping of garden waste in wider countryside, verges etc.</li> <li>5. ‘Hitchhikers’ with imported plants (on the plants themselves / in soil).</li> </ol>

		6. Escapes of animals from domestic, zoo, aviary situations. *
<b>Q2 Who needs to be involved in managing each of these?</b>	No sheet for this question	<ul style="list-style-type: none"> <li>• General public – awareness issue (1 &amp; 4) *</li> <li>• Trade Associations (2 &amp; 5) * *</li> <li>• Restaurant trade</li> <li>• Shipping</li> <li>• Live bait (Angling Association)</li> <li>• Misguided release on welfare grounds, e.g. American mink</li> <li>• Construction industry (3)</li> <li>• Planners</li> <li>• Regulators</li> <li>• Hobbyists and institutions (6)</li> </ul>
<b>Q3 What biosecurity actions are you involved in? (or would / could be involved in?)</b>	<ul style="list-style-type: none"> <li>• Bird feeders</li> <li>• Cleaning clothes and equipment (x2)</li> <li>• Removal of Japanese knotweed</li> <li>• Buffer zones</li> <li>• Improve communications</li> <li>• Risk assessments</li> <li>•</li> </ul> <p><b>What else could you do?</b></p> <ul style="list-style-type: none"> <li>• Clean equipment *</li> <li>• Biosecurity equipment</li> <li>• Walks and talks</li> </ul> <p><b>Site management</b></p> <p><b>Advice</b></p>	<ul style="list-style-type: none"> <li>• Cleaning outdoor clothing</li> <li>• Educating children about boot cleaning etc.</li> <li>• Removal of Himalayan balsam and Japanese knotweed on own land.</li> <li>• ‘Toolkit’ talks to contractors</li> </ul>

	<ul style="list-style-type: none"> <li>• Policy guidance *</li> <li>• Biosecurity risk assessments</li> <li>• SI (?)</li> </ul> <p><b>Awareness</b></p> <ul style="list-style-type: none"> <li>• Awareness / education * * * *</li> <li>• Inclusion in training courses *</li> </ul>	
<p><b>Q4 What are the difficulties in respect of implementation of biosecurity action?</b></p>	<ul style="list-style-type: none"> <li>• Funding</li> <li>• Individuals taking time</li> <li>• Liability / landowner (moral) responsibility</li> <li>• Legislation</li> <li>• Site induction / tool box talks to include biosecurity</li> <li>• Organisational awareness</li> <li>• Availability of kit</li> <li>• Awareness</li> </ul>	<p>Group ran out of time to discuss this question.</p>
<p><b>Q5 How can difficulties be tackled?</b></p>	<p><b><u>Barrier / Solution</u></b></p> <ul style="list-style-type: none"> <li>• Resources - No conclusion</li> <li>• Education - Plas course</li> <li>• Policy - LPA local supplementary guidance</li> </ul>	<p>No time</p>

**Workshop Session 2 – Awareness / Comms**

	<b>Group 1 (Chris &amp; Matt)</b>	<b>Group 2 (Gabe &amp; Jo)</b>
<b>Q1 what awareness / comms are you doing / would you like to do?</b>	<ul style="list-style-type: none"> <li>• Big Dee Day – the invasion (media message)</li> <li>• Presence at country shows / availability of staff</li> <li>• Talk to potential stakeholders</li> <li>• Ad hoc leaflets</li> <li>• Sector specific training</li> <li>• Plant Tracker app.</li> </ul>	<ul style="list-style-type: none"> <li>• Pembrokeshire Biodiversity Partnership - ???</li> <li>• Songbird Survival – raising awareness of impacts, e.g. ring-necked parakeet, grey squirrel</li> <li>• West Wales - ‘Toolkit’ talks</li> <li>• National Museum Wales – talks / lectures on invasive non-native insects and molluscs</li> <li>• Dee INNS Group – raising awareness through community volunteering schemes</li> </ul>
<b>Q2 What are the difficulties / barriers to implementation?</b>	<ul style="list-style-type: none"> <li>• Access for management – holistic / strategic – regional fora</li> <li>• Awareness of impact by owner / occupiers</li> <li>• Funding</li> <li>• Legislation</li> <li>• Sector awareness</li> </ul>	<ul style="list-style-type: none"> <li>• Clear simple message needed. Focus on top few ‘hot’ species rather than long lists.</li> <li>• Public perception of welfare, e.g. mink, grey squirrel *</li> <li>• Dumbing down of the message by the media</li> <li>• Are the public interested and is it relevant to them? * * * * *</li> <li>• Lack of funding to promote important messages</li> <li>• Shifting baseline syndrome, e.g. many people / children have grown up with grey squirrels around, so that is seen as the norm.</li> <li>• Example setting, e.g. Local Authorities should not plant non-native species on their land holdings. *</li> </ul>
<b>Q3 How can these be addressed? Barriers / solutions</b>	<p><b><u>Barriers - Solutions</u></b></p> <ul style="list-style-type: none"> <li>• Legislation change - WANE Act for Wales</li> <li>• Owner/occupier awareness - Better, targeted information</li> <li>• Sector specific awareness -</li> </ul>	No time

	<p>Bespoke training courses (Plas Tan y Bwlch)</p> <ul style="list-style-type: none"> <li>• Funding * * * * - Glastir</li> <li>• Planning - Local supplementary guidance</li> <li>• Working together * - Regional fora</li> <li>• Owner awareness - Dialogue with CLA, NFU, business etc.</li> <li>• Awareness - School projects.</li> </ul>	
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\*The dot each delegate added indicating what they felt was most important

**Post-Workshop Delegate Feedback:**

**Follow-up Questions:**

1. To NBB – You mentioned a project being developed with a not for profit, to engage young people. Any more info please?  
 (Contact: [andy.rowland@ecodyfi.org.uk](mailto:andy.rowland@ecodyfi.org.uk))
2. To Dave Thomas – Given the current problems being caused by grey squirrel, including damage to forestry and predation of eggs and chicks, would it not be a good idea for WG to return to the bounty scheme (payment on presentation of tails) to incentivise control?
3. (Contact: John Pugh, Songbird Survival. Respond via Keith Cowleson, [keith.cowleson@songbird-survival.org.uk](mailto:keith.cowleson@songbird-survival.org.uk))

**Any further points?**

4. Not enough time. Conference must be kept to time to avoid degrading the workshops. (No contact details)

**What else would you like to have covered / done differently?**

No responses to this question.

**What was good?**

1. Good to mix with others from different backgrounds, expertise, knowledge and opinions. Everyone learns and benefits. (No contact details)

## Day 2

### Developing a woodland creation approach in Wales. Russel Hobson, Wales Environment Link/Butterfly Conservation Wales

Facilitator: Russel Hobson, Chair of Wales Environment Link Land Use and Biodiversity Working Group

Reporter: Chris Tucker NRW

Objective: To gather people's ideas to help inform the debate on woodland creation.

#### Why?

##### Policy

- Climate change response by Welsh Government to achieve the 100,000ha of new woodland

##### Cultural/socio-economic

- The uplands of Wales are no longer capable of sustaining social structure, there is no wealth from upland management activities to support the communities so the activities have ceased so benefits for biodiversity are lost.
- Woodlands are intrinsically a good thing. High tree cover is not necessarily a requirement for woodlands (20% canopy cover, wood pasture, parkland.)

##### Ecological

- For connectivity, woodlands are better than other habitats.
- For biodiversity that is intrinsic to woodlands. Need to ensure that if we plant woods for biodiversity that it is delivered. (JS)
- Woodlands provide multiple benefits.
- Woodlands in the right place can help with flood defence and other social benefits.
- Part of extensification of land management - Extensively managing uplands in which woodlands are one part.

##### Other

- Clarity of objectives and integration of objectives
- Improved quality of woodland
- Economic value
- Education/engagement
- Difference of perception of what a tree is for

#### What?

Need to consider urban and lowland sites not just planting in the uplands. It's not just the tree/woodland planting in isolation, roles for hedgerows, ornamental planting, shelterbelts

Over 30 yrs there has been an increase in native woodland cover but not necessarily through planting. How much have we looked into role of natural regeneration? Why does Glastir Woodland Creation have to be through planting?

There is a need for flexibility in grant schemes to deliver woodlands for biodiversity to allow for Lower density, on Ffridd or creating parkland. Current Glastir rules require planting at 1600 stems/hectare is not appropriate for Ffridd. 10 or 20% of tree cover is considered 'forest'.

#### Urban tree cover

- This includes widely spaced street trees to huge woodlands within an urban setting.
- There are urban woodlands up to 15ha but the problem is in the public knowing that it is there.
- It is difficult to defend trees in the urban setting in the planning process. Their value is not recognised but there is an important role of planting to re-engage people.
- There is goodwill among general public, the issue is funding for trees is not scalable to their needs.
- Grant scheme not designed to deliver the current purpose for planting.

#### Community Engagement

- Understanding the outcomes wanted, don't impose on people listen to them.
- Buy-in is needed, be more inclusive with people, is the education work working.
- Showing people how a wood can be used, urban areas don't have the link to woodlands as they don't use them for fuel etc.
- Orchards are the trees we are used to, toe in the door. Relate to what the people want need, can relate to.
- Orchards are cultural link for people to woodlands.
- Fruit trees raise awareness and connecting people to trees and more orchards are being created.

#### Where?

On farms the land which will be 'given up' for creation will be the harder parts to manage and likely to be areas of other conservation value. Need a field officer to site visit and check that other things aren't lost. Heritage and landscape issues need to be considered as well.

We should target using connectivity information . Filling the gaps in the networks.  
How to resolve planting on semi natural habitats – strategic overview needed  
Balancing woodland creation and other habitats, having a landscape approach to all habitats. Need to look at it strategically.

What is Ffridd? Some of the components, such as dry bracken banks could be planted.  
NT Ffridd planting scheme to show what types of planting are useful. Lower density planting.  
There are a range of projects to show different types of planting.

Scheme purpose drives the scheme design. More planting options gives more flexibility and greater diversity of outcome.

Discussion on the best way of locking up carbon.

When does a hedge become a shelter belt become a woodland?



Needs advice that is free, unbiased, not peddling grants and long-term engagement to gain trust. Role of advisor short term contracts doesn't allow continuity, which is wasteful of training.

New RDP proposal element from EU for agro-forestry allowing integration of grazing and tree planting which can be adapted to meet Welsh traditions and thinking.

Wary of coastal areas with expected sea rises rolling coastal habitats inland to create more so don't plant up areas that will be lost to the sea.

## How?

### Flexibility

- Asking WG to include the GWC in their review with the concerns above and take a closer look at the Glastir woodland rules.
- 80% high forest trees too high - allow more shrub planting within the scheme. Pioneer species and shrubs included at start. Fits with encouraging pollinating insects, most forest trees are wind pollinated, shrubs and herbs are needed for insect planting. Replicate natural systems not homogeneous species and spacing.
- More mix of trees and grazing
- Existing woodland management to include herbivores.
- Develop models of grazing woodlands to give a more natural forest structure.
- Native broadleaves - consider climate proofing, mixtures that will be resilient to change. View of final structure and how woodland develops
- More ecological perception of woodland use
- Look outside farmed environment – development opportunities

Challenge in field officers to deliver this type of design but its not that difficult, don't need the full ecological knowledge to implement and see benefits.  
Recognise that mistakes will be made but that also allows that we can get things very right. Also means that we will get diversity across the landscape.

Incentives may not be money but drive management through the economic benefits, marketing to compliment woodland management to show the landowner the benefits of management. Put woodland management into the context of products from the woods.

Woodland creation needs follow-up management both in grant system and to encourage people to do it themselves. Ongoing payments for the right management -why isn't there long term maintenance of grants?

Post planting management needs to be clear at the start.

Need to manage to get success. Design of the scheme, advisers' not grant peddlers to not push bigger schemes, start small to build landowner confidence over time. Encourage people to do what they want to do so it becomes sustainable.  
Target hitting is not good.

## Pollinator action Plan for Wales:-next steps. Caryn Le Roux and Gemma Light, Welsh Government

### Q & A's on best practice guidance

Managing roadside verges, best-practice guidance etc.

- Group felt awareness-raising was of key importance.
- Knowing who in each Local Authority is responsible. Would be useful to have a global list of elected members in Wales and their areas of responsibility.
- Where's the most pollinator-friendly council?
- Is there a standard cutting approach – can there be a standard approach?
- Rather than waiting for questions to arise, are there materials/guidance/publicity online to inform this?
- Are there any economic imperatives for better management of roadside verges, group felt this needed a wider discussion /attention.

How are contracting agreements managed?

- A biodiversity contact should be involved in discussions
- Raking-off issue needs to be addressed
- When is the best time to cut? 1m cut? – Inconsistent/safety? Is there a programme?

Who has the ability to cut and collect?

- Monitoring road side verges
- Costs, procurement, tender process - contractors, labour, maintenance, seeds

### Funding

- It would be useful to identify experts on local funding delivery, identifying who has the expertise and what is available in terms of funding and knowledge.
- Using successes (both successful funding bids and successful pollinator projects) to inform future projects. Having this as a basis likely to encourage collaboration.
- Could there be a funding source?

Separate guidance is needed for the following:

- Highways
- Schools – education starts at school = time lag
- Parks
- General Public
- Garden Centres
- Allotments
- Gardening Clubs

### What format would the guidance best take for users?

- Use of motorway service stations – posters, leaflets, videos
- Wildlife section in “Best Kept Village”, “Britain in Bloom”, Individual garden awards
- Radio – BBC Radio Wales, Archers
- TV – Springwatch, Gardeners World, The One Show

- Online / Website – a one stop shop for pollinators? Some sort of sign-up club with access to guides and resources would be useful.
- Twitter – pollinator specific account or use of the WG account?
- Pollinator blog? Maybe incorporating a planting timetable for year-round pollinator-friendly plants.

### **What should the key messages be for awareness-raising?**

- Why is changing the timing important?
- What are pollinators? Public confusion between causes of decline – honey bee v bumblebee. Message not clear at the moment
- Evidence on why it's important
- Highways - Health and Safety concerns, traffic management
- Litter issue
- Seeds for planting – will pollinator plants be sown or is it better to leave verges to grow? Where does the seed come from?
- Seasonal successions of flowering habitats
- Trees and shrubs – hawthorn hedges
- Pollinator-friendly planting – garden centres / financial incentives / awards
- Visually attractive
- Green Flag award – bee gardens
- Impact of salt, grit and nitrates

### **Further suggestions**

- Mobilising – link between different organisations. Encourage peer to peer introductions in order to develop links.
- Organisations should mobilise volunteer power, create the links with people who want to help. People are interested and do want to help.
- Education / teachers – Competition / Co-ordinating initiatives / Eco Schools / changing curriculum / BREEAM standards
- Educational aspects very important. Needs to be targeted at the appropriate age/level. Could Welsh Government/Environment Wales fund a pollinators scheme for schools? Would need to be costed – and who would coordinate?
- Majority of discussion centred around education in schools etc. but what about educating adults, who are considered to be less engaged on these issues.
- Universities – Conservation Groups
- Forestry Trusts – NRW – felling practices / re-planting

## Working Big: conservation delivery at the landscape-scale in Wales. John Clark RSPB Cymru and James Byrne Wildlife Trust Wales

### Working Big: conservation delivery at the landscape-scale in Wales

The recently published *State of Nature* shows us that despite some recent improvements, our attempts to reverse decades of decline in our wildlife, and the habitats in which it lives have not succeeded. This has consequences not just for our wildlife. It means our economy and society suffer too and our communities are at greater risk from the likely consequences of climate change e.g. flooding.

As a result, landscape-scale conservation (LSC) initiatives are rapidly growing in number across the UK, building upon the need to work beyond designated site boundaries, and pool resources via partnership working. With the developing ecosystem approach in Wales, LSC partnerships could be a vehicle to demonstrate best practice at delivering improved ecosystem services and biodiversity management in tandem – but only if designed well.

This workshop looked to

- contribute to the knowledge on LSC initiatives with examples from participants including good and bad practice.
- Identify common theme or **shared characteristics** (if there is one) that can be found in all successful LSC projects

Information on LSC programme design and delivery will be shared, in an effort to identify best practice and a gap analysis in approach.

#### Examples of LSC

The following are examples of landscape-scale initiatives that are delivering benefits for people and wildlife. All demonstrate that every sector of society and the economy can and should play a part. Equally, they highlight that there is no one size fits all solution.

- **Pontbren** - <http://www.coedcymru.org.uk/images/user/5472%20Pontbren%20CS%20v12.pdf>
- **Tywi Wildwood** - <http://news.bbc.co.uk/1/hi/wales/8239249.stm>
- **Pumlumon Living Landscape** - <http://www.montwt.co.uk/pumlumon.html>
- **Anglesey and Llyn Fens** - [http://www.wtwales.org/sites/default/files/north\\_wales\\_alun\\_and\\_wheeler.pdf](http://www.wtwales.org/sites/default/files/north_wales_alun_and_wheeler.pdf)
- **Landscapes for Lessers** - [http://www.bats.org.uk/pages/landscapes\\_for\\_lessers.html](http://www.bats.org.uk/pages/landscapes_for_lessers.html)
- **St David's Heathland Restoration** <http://www.pembrokeshirecoast.org.uk/?PID=150>
- **Oostvaardersplassen** [http://diaplan.ku.dk/pdf/large-scale\\_nature\\_development\\_the\\_Oostvaardersplassen.pdf/](http://diaplan.ku.dk/pdf/large-scale_nature_development_the_Oostvaardersplassen.pdf/)
- **Coastal Retreat** by Essex Wildlife Trusts <http://www.essexwt.org.uk/reserves/abbotts-hall-farm>
- **Great Fen Project** - <http://www.greatfen.org.uk/>
- **The Alun and Chwiler catchments** [http://www.wtwales.org/sites/default/files/north\\_wales\\_alun\\_and\\_wheeler.pdf](http://www.wtwales.org/sites/default/files/north_wales_alun_and_wheeler.pdf)
- **Lake Vyrnwy** - <http://www.rspb.org.uk/reserves/guide/l/lakevyrnwy/work.aspx>

- **SCaMP - Sustainable Catchment Management Programme** - <http://corporate.unitedutilities.com/scamp-index.aspx>
- **South West Water's 'Upstream Thinking' project** - <http://www.southwestwater.co.uk/index.cfm?articleid=8329>
- **Moors for the Future** - <http://www.moorsforthefuture.org.uk>
- **The West Cambridgeshire Hundreds Project** <http://www.wildlifetrusts.org/living-landscape/living-landscape-schemes/scheme-directory/west-cambridgeshire-hundreds>

### A Strategic Approach to Delivering LSC

It was argued whether or not a strategic approach was required to delivering the multiple LSC projects in Wales. There were benefits of having an overall strategy perhaps enabled by Government or NRW, however, it was also recognised that a one size fits all strategy cannot work and that projects and partnerships are place and people specific and happen organically.

Eitherway identification of the landscape unit is required with a common consensus of catchment scale was appropriate (at least to start off with and narrow down). Identifying biodiversity hotspots was seen as important both at a large and small scale. However, a criteria should be developed for prioritization e.g. directives vs site specific issues. A risk analysis should be undertaken (money, time, etc) on competing issues and that should impact upon the priorities.

It was also see that LSC doesn't exist in isolation and LSC partnerships should identify linkages to other initiatives where multiple resources and benefits can be brought to bare.

### Drivers

- Connectivity of habitats and restoration of species
- Legal requirements – Water Framework directive, Birds and Habitats Directives Infraction and legal proceedings
- Economic – demonstrating that there are better value for money
- Managing ecosystem services such as water quality, soil erosion, flood prevention, carbon capture, invasive species control, recreation, tourism, national identity, water quality, ecosystem services , sustainable Livelihoods

### Challenges

- **Top down approaches** may mean that it will be a challenge getting community and landowners engaged and this could create a public backlash from top down approach
- **Bottom up approaches** many have difficulty in getting funds and policy maker support.
- **Expectation management**
- Is there a will and **desire to change** for various groups or is this just repackaging what we are already doing?
- **Inconsistency of approach** especially between authorities in different areas such as Local Councils, NRW, conservation organisations etc
- Will the work actually be long term, will there be **continuation of work**, or is it funding led.
- **Funding** - Shrinking funds; Huge amount of preparatory work for funding bids; Long term funding required but usually only short term funding available and tight deadline to use it: However, more organisations are competing for smaller pots and there are match funding issues.
- **Creating partnerships** with multiple public and private sector organisations with competing or seemingly contradictory aims.

- **Confusion** over projects run by different organisations competing with no over-arching strategy, or strategic framework. Well-intentioned projects that have failed to deliver the wildlife or ecosystem service benefits envisaged because there was no strategic coordination. Examples include, trees planted on existing important grassland habitats and new habitats created that were too far apart or which had no plans in place for their longer-term management and so rapidly deteriorated.
- Receiving by-in from **multiple landowners**
- **Animal welfare** issues for conservation grazing.
- **Demonstrating success** to potential investors - how much (£) flood damage would peatland work save or green infrastructure reduce health bills.
- **Data capture** and sharing data between organisations as well as keeping monitoring and data sets going after the project funding has finished.
- **'Shifting Baseline Syndrome'** each new generation tends to think of the 'natural' environment from their youth, with the perception of ecological change differs from generation to generation. There is a continual lowering of the benchmark, whereby a degraded state of nature becomes the norm. This allows society to become tolerant of the creeping loss of biodiversity with a huge education campaign required to readdress this issue.

### A Way Forward?

- Need for a **project coordinator**. Such a person could be an employee of one of the organisations involved in the project or a volunteer but the existence of such a person, with the relevant skills, is essential to the successful implementation of any complex, multi-partner initiative.
- **Partnership** – our natural environment is owned, managed and regulated by a complex range of organisations and many more groups and communities have a direct interest in it, be they anglers, dog walkers or local businesses. The larger the area, the greater the number of stakeholder groups there are likely to be. Not all will want the same thing, but working collaboratively and in partnership is essential to securing success. Where landscape-scale working is being attempted, it is vital that all partners focus and utilise their resources collaboratively.
- Landscape-scale working requires **collaboration** between and across different organisational, political and administrative areas.
- **Regulation** has played a key role in ensuring the continued protection of Wales most important wildlife sites and will continue to do so. The **polluter pays principle** is also one which is well established in law and has sought to ensure that organisations or individuals who harm the environment pay towards repairing the damage done.
- **Payment for Ecosystem Services** - Reward those who provide environmental benefits by realising the value of their actions. Farmers and landowners who agree to undertake work that will improve the environment or benefit wildlife on their farm can receive payments
- **Strategic and local** – one of the advantages of undertaking activities that will benefit wildlife is that irrespective of ability everyone can do something, whether as an individual, community, organisation or business, and everyone benefits.
- Initial expense (such as capital costs) should be looked at in the short term so to reduce economic burden at other stages.

- LIFE N2K Programme for Wales – there are funding sources that will aid preparatory work, however this is only for N2K sites – could this be adapted across Wales or landscapes?
- Better communication between organisations about bids.
- Dedicated funding staff who can co-ordinate applications or share resources.
- Communication of results to society should be done via narrative not just data – make it tangible.
- Each LSC initiative should look at undertaking stakeholder workshops, GIS opportunity mapping and ecosystem service evaluation
- Knowing the current state of the environment within a landscape-scale area and having information about its potential (about both wildlife it can support and the ecosystem services it can provide and about other existing projects to link up with) is vital in order to be able to measure progress and identify and realise the environmental potential of an area.
- Green Infrastructure should be built into development or funding (e.g. WEFO) whereby in urban areas or regeneration zones, the following could be added - green roofs/walls, street trees, rain gardens or pocket parks. These would benefit wildlife and deliver ecosystem services by minimising surface water flooding, providing urban cooling or places to socialise and relax.
- Set up farming co-ops to share machinery.
- Ensuring public owned /managed sites have a management plan which is being implemented and that up to date ecological data and expertise is made available and used locally to inform all planning and other authority decisions.
- Data may be held by many disparate organisations and can be difficult to identify or obtain. Improving the collation, sharing and publication of data would certainly assist landscape-scale projects achieve their desired outcomes

**Links to RSPB and Wildlife Trusts Wales landscape-scale conservation initiatives:**

<http://www.rspb.org.uk/futurescapes/>

<http://www.wtwales.org/living-landscapes/living-landscape-schemes-wales>

Annex 1 - **Workshop agenda**

**Working Big: conservation delivery at the landscape-scale in Wales**

Introduction (15 min)	Facilitators presentation  (John Clark & James Byrne)
Exercise 1 (20 min)	Split into groups  Each group to do the following: <ul style="list-style-type: none"> <li>- list the landscape-scale conservation (LSC) projects that you are aware of, both in Wales and wider (even global).</li> <li>- put two 'key drivers' under each project</li> <li>- list the main <u>challenges</u> and main <u>successes</u> of these projects</li> </ul>
Plenary (20 min)	<ul style="list-style-type: none"> <li>- Nominate a speaker from each group to feedback to the room on what their group discussed.</li> <li>- Share the best points about good LSC projects that we know</li> <li>- Agree <u>four or five</u> of the most common challenges identified</li> </ul>
Exercise 2 (20 min)	Return to groups <ul style="list-style-type: none"> <li>- Assign each group one of the agreed key challenges</li> <li>- In your group, outline the key drivers for these challenges, and mechanisms that could be employed to resolve</li> </ul>



<p>Plenary (15 min)</p>	<ul style="list-style-type: none"> <li>- Nominate a speaker from each group to feedback to the room on what their group discussed.</li> <li>- Discuss the most common themes that lead to successfully overcoming the challenges identified</li> <li>- Discuss methods to employ, such as stakeholder workshops, GIS opportunity mapping, ecosystem service evaluation</li> </ul>
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**Wildlife gardening with schools, community and business. Anna Williams and Iwan Edwards, Wildlife Gardening Project Wales/ North Wales Wildlife Trust**

Experiences of running school and community projects were shared and discussed:

**LESSONS LEARNT from our point of view – School projects**

1. There is a need for expert advice and practical help.
2. Schools to part fund garden project.
3. Involve grounds maintenance team in development of plans.
4. Form garden group at school; include pupils, non-teaching staff. Aim to involve more than 1 member of staff. Inform governors.
5. Include garden in school management plan.
6. Award schemes/competition of interest to schools and it ensures continued use and work in garden.
7. Teacher training days important as lack of knowledge amongst staff.
8. County ECO school newsletter great to share ideas..
9. Inform schools of grants and other local events.
10. Make it fun!!

**Benefits from schools point of view:**

- Pupils’ discovering nature

- Great for special needs pupils
- Curriculum requirement for outdoor learning
- Keen teachers able to develop ideas with help from Wildlife gardening project
- Teacher training which has led to action at schools
- Grant sources identified for schools, e.g Edina Trust
- Advice available from us on an ad hoc basis
- Welsh speaking project

#### **Wishes for moving forward**

- Funding for wildlife gardening officers in each area of Wales

#### **Good news for Wildlife Trusts in Wales**

Wildlife Trusts throughout Wales are receiving money from the Cooperative to deliver wildlife gardening projects 2013-2015. Each area will deliver slightly different projects to suit the budget allocated.

Resources will become available on-line.

A wildlife garden survey for the public will hopefully be launched in the spring.

#### **Other schemes**

- **RHS** – school gardening project, On-line bench mark scheme plus grants. Recent report on “Impact of school gardening on learning”
- **RHS and Wildlife Trusts** – WILD ABOUT GARDENS [www.wildaboutgardens.org](http://www.wildaboutgardens.org)
- **National Garden Scheme** – Open Days raise money for charities. We joined forces on a couple of occasions.
- **RSPB** – Homes for wildlife - Big Garden Birdwatch, A to Z advice Wildlife garden, leaflets.
- **BTO** – Garden Birdwatch
- **National Trust** – website: Get Involved, How to guides: Video clips
- **Flora locale** – Native wildflowers, courses, case studies library
- **Garden Organic** – school gardening project, “Food for Life” Partnership,

- **LOCAL WILDLIFE TRUSTS**, Gwent: Shrill Carder Bee Project, Montgomery:

Award scheme, self-assessed, South & West Wales: Garden news

- **UK Forum for Wildlife Gardening** – Manifesto over 150 agencies signed up

## **Building LBAP engagement – the use of novel learning techniques. Diana Reynolds, B4C Group/ Welsh Government**

### **What are we doing already that is on the right track?**

- We have good networking a communications within the sector
- We provide opportunities for impromptu discussion and networking
- We address the problems (state of nature)
- We appreciate what we've got but recognise what is missing

### **How can we enhance this?**

- Better communication with a wider community
- Using good plain English and clear Welsh to expand communication networks
- Set aside more time for discussion/agenda-less meetings
- Invite all the key stakeholders – groups and individuals – ensure genuine inclusivity

Our **one wish** is that we become truly mindful of the real timescales involved

### **What resources, tools and case studies do we know of?**

#### **Nudge:**

For a rather academic but very thorough look at this topic see:

Rhys Jones, Jessica Pykett and Mark Whitehead. Changing Behaviours – On the Rise of the Psychological State, Edward Elgar Publishing, Cheltenham, ISDN: 978 0 85793 687 5

[http://www.e-elgar.co.uk/bookentry\\_main.lasso?currency=UK&id=14572](http://www.e-elgar.co.uk/bookentry_main.lasso?currency=UK&id=14572)

(includes a case study about the Appetite for Life Initiative in Ceredigion)

#### **Co-production:**

Welsh Government's co-production 'how to' (could we add this to the checklists section of the WBP website?)

World Café **Community Foundation** provides free resources, asking for a donation **if you are using their materials in a professional capacity:**

<http://www.theworldcafe.com/tools.html>

#### **Mindfulness:**

We don't have a link (unless anyone else can suggest one?) but there may well be course available in your local area.

#### **Infectious memes:**

Here's a couple of meme based books. Enjoy! (Warning!! - it can be depressing when you look at which memes are currently winning!! A crushing sense of ennui can settle over you - or hopefully a determination to spread more favourable memes!)

[http://www.amazon.co.uk/Virus-Mind-Revolutionary-Science-Affects/dp/1848501277/ref=pd\\_cp\\_b\\_1](http://www.amazon.co.uk/Virus-Mind-Revolutionary-Science-Affects/dp/1848501277/ref=pd_cp_b_1)  
[http://www.amazon.co.uk/The-Meme-Machine-Popular-Science/dp/019286212X/ref=pd\\_sim\\_b\\_3](http://www.amazon.co.uk/The-Meme-Machine-Popular-Science/dp/019286212X/ref=pd_sim_b_3)

### **What is co-production?**

Co-production is a way of achieving better outcomes by sharing power and responsibility. Co-production involves seeing people as assets and in charge of their own situation; most of us believe this but we do not always demonstrate it in our practice. Co-production relies on a set of core principles and requires all partners to change the way they work.

### **Principles of co-production**

There is no 'official' list but here is a good one:

- valuing the place we live and/r work
- respecting and appreciating people, present and absent and including future generations
- building on their strengths/interests
- developing peer-support networks
- equality, mutuality and reciprocity
- facilitation not intervention

### **How do I start co-producing?**

Use the ideas above and below to design a little bit, but not too much, structure for your meeting and ... have a go. Notice how it's working at the time (if you can) and afterwards reflect on how it went. Make some changes to your technique/approach next time. Share your experiences with others and learn together. Repeat for 10,000 hours or as long as you have available.

### **A co-pro methodology**

There is no 'official' methodology because co-production is all about responding to the people in the room, in this place, right now and so it's naturally different every time. Here is a method you might try:

- Invite everyone with an interest, especially people outside your usual sphere
- Start where people really are not where you want them to be or with what you want to tell them
- Provide a little bit of structure – e.g. some key questions and use this to explore, share and listen, together
- Seek further sources of evidence and interesting information
- Find some action, however small, that you can agree to take together and identify some wicked issues that you want/need to discuss further
- Use the (probably limited) resources you have available as imaginatively and positively as you possibly can – don't tell each other what to do but look to make offers or suggestions
- Make decisions only for yourselves i.e. those who are in the room and devise a way of inviting those outside to join you if they wish
- Seek feedback and sense how things are going

### **Are we co-producing yet?**

It might be co-production if you find yourself asking questions like these:

“What matters to you?” “What do you want your life to be like?” “What is interesting/important about this situation?” “What else do we need to know?” “What can we do to help each other and ourselves at the same time?” “Who else should/could we involve?”

### **Where can I find out more?**

<http://coproductionnetwork.com/page/about-coproduction>

<http://www.timebanking.org/about/co-production-and-timebanking/>