

# COLLABORATIVE FRAMEWORKS IN LAND MANAGEMENT:



## A Case Study on Integrated Deer Management

### Project Newsletter Number 2.

Editorial

[www.macaulay.ac.uk/RELU](http://www.macaulay.ac.uk/RELU)

Welcome to the second newsletter for the RELU Deer Project. We hope you will find this a useful update on the progress of the work and would like to thank everyone who has supported the project so far, particularly in the case study areas where we have had an extremely welcoming and helpful response from stakeholders. We look forward to this continuing and productive dialogue throughout the project.

We will be reporting project results to our stakeholders and RELU funders through this newsletter and articles in trade and scientific journals, on our website and the RELU website [www.relu.ac.uk](http://www.relu.ac.uk)

If you know of others who would like a copy of the newsletter please let us know. If you no longer wish to receive this newsletter or have any comments on it please contact me **Brenda Mayle, Ecology Division, Alice Holt Lodge, Wrecclesham, Farnham, Surrey GU10 4LH;** [brenda.mayle@forestry.gsi.gov.uk](mailto:brenda.mayle@forestry.gsi.gov.uk)

Project Aim

To produce a framework for the development of effective, informed, inclusive, collaborative and sustainable management of rural resources in Britain, using wild deer as a case study.

This project aims to identify the 'processes' by which barriers and drivers for successful collaboration can be identified. An important part of the project includes evaluating how well **we** as an 'interdisciplinary' team work together. Liz reports later on how we are monitoring this.

As we use different technical language in each of the sciences and information is handled and analysed in different ways the challenge is not only to communicate within the team effectively but also to ensure we do so to you the stakeholders. Many of us have given presentations during the last few months. We would welcome any feedback about these (please see the questionnaire at the back).

Through working closely with you, the stakeholders, we hope by the end of the project to provide a better understanding of the issues influencing deer management at national, regional and local scales, and what processes can be used to identify and manage similar issues for other rural resources. We also hope to be able to provide methods to clarify some of the issues. One objective is to identify how and when collaborative management can be a benefit to rural resource management. One thing we do not expect to achieve is to solve all the issues around deer management.

### New Team Member

Amy Turner has recently joined the team. Amy is from London, and studied Geography at Manchester. She spent 2 years working and travelling in South America and then took a Masters in Environmental Sustainability at Edinburgh with a dissertation on forest fragmentation in the Brazilian Atlantic Forest using pGIS (participatory Geographic Information Systems).



Amy has spent time in The Philippines and Malaysia as a project coordinator, conducting ecological surveys and using GIS to create habitat maps. She is very happy to be back in Scotland for the scenery, wildlife and horse riding.

### Progress

Good progress has been made over the last 12 months and many of you will have met one or a number of us on various occasions. We would like to thank you for your time, hospitality and support for this project.

As many of you are aware our research proposal was guided by discussions with stakeholders during the Network Award. Our recent research activities have identified emerging priorities relating to deer management so we will be reviewing our work tasks to ensure these relate to the emerging issues as well as meeting the objectives of the original proposal. We will report on progress in future issues.

### Stakeholder Analysis

The national stakeholder interviews last autumn have enabled us to build an initial picture of collaboration at the national level. We are currently engaged in the second round of interviewing with more stakeholders at the national level. In addition we are assessing how national-level collaboration informs, and is informed by, practice at the local level. Analysis of these interviews is ongoing and a paper is in draft.

### The Case studies

The case study areas; Poole Basin (Dorset), Marches (Herefordshire and Shropshire), Loch Lomond & Trossachs National Park and West Sutherland, have been selected to represent examples of different issues around deer management, and differing levels of collaboration. Through meetings and interviews within these areas we are building a picture of collaborative deer management at the local level (primarily, although not exclusively) working with Deer Management Groups. Particular attention is



Sika grazing outside woodland in the Poole Basin area.

Photographed by Norman on one of his visits

being paid to the barriers to and drivers of collaboration, the capture of additional value from the resource and the identification of areas where more information (via research) or methods to improve transfer of research results and other knowledge into practice, are needed. We are exploring key concepts under-pinning deer management (e.g. ‘sustainability’ and ‘welfare’) and are already finding differences between stakeholders with regard to their understanding and use of these (and other) concepts. By spending time on the case study sites we are able to get an understanding of the issues involved.

### Venison survey

The primary purpose of this work, being carried out by Sharon, is to understand the workings of the wild venison supply chain from the perspectives of those producing and processing it. We are not looking at opportunities to improve marketing as others, such as ‘Game to Eat’ are currently investigating these. Instead we hope to build on the knowledge and experience of those involved to inform an economic and cultural analysis of the role played by venison within the overall context of collaborative wild deer management in the UK. Surveys and interviews are almost complete in Scotland and will be extended to England in the next few months, starting with the Marches area. Our approach has allowed Sharon to experience first hand some of the difficulties associated with producing a high quality, wild food product – not least the extreme weather conditions Scotland can provide!

One element of this work involves tracing the average price of venison on an annual/seasonal basis across the last 20 years, or more if possible.

***If you can help with this type of information***

Please contact Sharon by email at: [s.phillip@macaulay.ac.uk](mailto:s.phillip@macaulay.ac.uk) or by telephone on: (01224) 498200 – ext. 2347.



Sharon with ghillie in one of our case study areas in Sutherland

#### Review of the development of Deer Legislation

A review of the context in which deer management legislation has developed is underway. This includes historical legislation and an analysis of the ecological, economic and social contexts in which current deer related legislation has evolved. In this way we hope to identify legislative drift, inertia and redundancy, and assess how the legislation has developed towards its application in the contemporary context. We aim to publish this review as an academic paper.

#### Science & the perception of deer (& ecological work)

We are planning workshops in the case-study areas to assess public attitudes towards deer and the impact of deer on woodlands and woodland biodiversity, and preferences for woodland habitats. We are particularly keen to conduct these workshops in the Marches case-study area.

#### Participatory GIS, DeerMAP and Ecological Modelling

To understand the way different management practices influence wild deer in the landscape we are using Participatory GIS. We will bring together practitioners and scientists to map management practices and baseline knowledge and then integrate it with DeerMAP.

DeerMap was produced by MLURI as a way of predicting the preference of red deer for different habitat patches within a landscape at different



times of the year. The model takes into account forage preferences, shelter, cover, deer fences, interaction with stalkers, walkers and flies.

In collaboration with deer managers we are refining the DeerMap modelling tool and developing it to predict the actual density of deer likely to be using each habitat patch at different times of the year. We will then link DeerMap to a population dynamics model for red deer to allow users to predict the effect of different culling regimes on the density of deer likely to be using different habitat patches.

As part of the participatory GIS local managers will be invited to workshops where DeerMap will be used to assess the validity and benefits of different management options. This two-way discourse will allow us both to improve the accuracy of the model and to test the effectiveness of this approach as a tool via which to encourage collaboration among deer managers. We hope this will also be useful for managers after the project. The case sites have already been identified, maps have been developed and initial data collection through interviews is underway.

#### Choice experiments

To assess the acceptable costs involved in deer management and the trade-offs between these and public benefits we are proposing to use choice experiments. These involve asking stakeholders to choose between options presented to them where there will be trade-offs at differing levels. For example; low deer numbers and low impacts on conservation woodland compared with higher deer numbers and impacts on conservation woodland.

The development of choice experiments is one area where we need significant input from stakeholders at national and local levels. The success of the choice experiments depends on their relevance to those who take part. We aim to ensure this by inviting deer management experts (one each in England and Scotland) to help select attributes which are as relevant and realistic as possible within the confines of an experimental protocol.

Stakeholders at case study sites will then be invited to attend workshops to take part in the choice experiments. We now need to confirm the suitability of sites (in terms of a range of stakeholders willing to participate in this), venues, and suitable dates.

#### Work shadowing and Fellowships

These are opportunities provided by RELU. **Work shadowing** enables members of the project team to spend time with stakeholders to gain a better understanding of the practical issues. **Fellowships** enable stakeholders involved in policy implementation or practice to visit the research team and explore the implications of the research for their work. The focus of both is to encourage 'made to order' information transfer

activities and materials. Both are for periods of between a week to a month and RELU will cover travelling and accommodation costs. Applications for the current round can be sent directly to RELU or through the project team but need to be in by 31<sup>st</sup> July. If you would like to be involved with either of these please contact Brenda [brenda.mayle@forestry.gsi.gov.uk](mailto:brenda.mayle@forestry.gsi.gov.uk)

### **Our first work shadowing experience**

Piran spent a week in April at Clinton Devon Estates, under a 'work shadow' arrangement. He was in Devon at the invitation of John Varley, Estates Director of Clinton Devon Estates, and spent his time with Kevin Brosnan (Head Keeper), Tom Garner (Estate Ranger) and John Wilding (General Manager Forests and Timber). During the week, he got some experience of roe deer stalking, and visited parts of the Heanton Estate in North Devon and the Clinton and Beer Estates in South Devon to discover more about deer in the area at first-hand. He learned about the impacts that deer are having on some of the woodlands in the area, and some of the practical problems of managing deer in the area, especially roe deer on the urban fringe in south Devon and red deer which move across different properties in north Devon. He also had the opportunity to discuss deer management with Norman Healy (Deer Liaison Officer for the Deer Initiative in the South West Region), and to learn more about the opportunities and challenges of venison marketing from Lesley and Richard Goodman (Gara Barton).

### **Participatory interdisciplinary working of the project team**

As part of the project we are exploring the participatory interdisciplinary working of the team. Interdisciplinary working involves integrating knowledge from several disciplines such as ecology and sociology, crossing subject boundaries. Participatory interdisciplinary research includes stakeholder knowledge and experiences in order to create new integrated knowledge and solve common research goals. The work involves the project team filling in questionnaires on a regular basis to explore positive and negative aspects of interdisciplinary working and any changes in people's understanding of particular issues or disciplines due to working with other scientists or stakeholders. We are exploring changes in our perspectives and attitudes over the three years of the project.

Early results highlight positive aspects:

- New opportunities and motivations to learn from others.
- Producing research that is more relevant to practitioners and policy makers.

And negative aspects:

- The extra time taken to bridge gaps in understandings between scientists from different disciplines.
- The impacts on a scientist's careers, for example there are fewer high profile interdisciplinary journals to publish in than there are single discipline journals.

It is clear that there are changes in understanding taking place in the team as part of the project, such as an awareness of different research methods, and a less defensive attitude amongst the group concerning the value of methods from different disciplines. The scientists have suggested that the deer project will produce practical contributions to knowledge by:

- Investigating the role of collaboration through participatory modelling.
- Highlighting new approaches in terms of data analyses.
- Providing insights into the resolution of environmental problems and involvement of stakeholders.

In the next phase of the project we aim to explore stakeholder engagement aspects of the research and reflect on our participatory interdisciplinarity.

#### Bibliography development - Literature database survey

We are developing a database of deer related reference material from academic, governmental and other organisational sources. In the last newsletter we asked whether such a database would be useful for individuals and groups interested in deer management. Sadly we had a very low response to the questionnaire with only 9 replies. We would still like to receive your comments and the questionnaire can be found at [http://www.macaulay.ac.uk/RELU/dg\\_poster.html#Poster](http://www.macaulay.ac.uk/RELU/dg_poster.html#Poster)

If you would like a hard copy please contact:-

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#### The Project team

A few changes have taken place within the team of environmental, economic and social scientists. We have a broad range of experience in research and practical environmental management, particularly deer management. Contact details can be found at [www.macaulay.ac.uk/RELU](http://www.macaulay.ac.uk/RELU) and the individual university and institute web sites.

Macaulay Institute: Justin Irvine Stefano Fiorini	Forest Research, Brenda Mayle, Liz O'Brien Robin Gill, Norman Dandy Helen Armstrong
University of York: Piran White Jim Smart	DICE University of Kent: Douglas MacMillan Sharon Phillip
University of St Andrews: Rehema White	University of Edinburgh: Steve Yearley
University of Aberdeen	René van der Wal Amy Turner

How well are we presenting the project to you?

Many of us have given presentations during the last few months. (A table of events we have been to is available on the website). We would welcome feedback about these. Whether they are too complex, have we tried to cover too much, is the language too technical?

Have you seen a presentation about the project over the last 12 months?

When was this .....

Where was this .....

Who gave the presentation.....

Was the presentation, (Tick whichever relevant)

Amount of information      Too much     Just right     Too little

Technical Jargon              Too much     Just right     Too little

Interest            Very interesting     Quite interesting     No interest

Usefulness                      Very useful               Neutral               Not useful

Are you a

Manager/Owner     Scientist     Policy maker     Member of public

Other Comments .....

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We would like to thank you for completing this survey and will report on progress in future newsletters.

The research is conducted as part of the Research Councils' Rural Economy and Land Use (RELU) Programme (Project: RES 227-025-0014). RELU is funded jointly by three Science Research Councils, Defra and SEERAD. The Forestry Commission is also supporting this project. Details about RELU can be found at [www.relu.ac.uk](http://www.relu.ac.uk)