Human Dimensions of Wildlife Research

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Social & Economic Research Group
Presentation

1. Overview of research projects
2. Summary of outputs
3. Future work?

Research Projects

- Collaborative Frameworks for Land Management (RELU)
- Management of roe deer in peri-urban Scotland (PUD)
- Human-dimensions of species management (HDSM)
Collaborative Frameworks for Land Management

RELU Sponsored Research Project

Macaulay Institute; Forest Research; University of Aberdeen; University of York; Edinburgh University; DICE (University of Kent)
Research Questions

Why Collaborate?

- A large number of ‘stakeholders’
- A landscape scale resource.

FOCUS: The Collaborative Process

- How does the collaborative process work?
- What are the problems and barriers to success?
- What existing factors encourage successful collaboration?
- How can collaboration help to capture more value from the resource and achieve a sustainable deer population?
Local **case-study research** (meetings, interviews, ‘observation’, stakeholder analysis),
National-level stakeholder interviews (stakeholder analysis),
Examination of legislation and its impact upon collaboration,
Ecological modelling and **use of GIS to integrate manager knowledge**, 
Venison processors survey & supply chain analysis,
Discussion of lessons from US collaborative wild deer management,
**Perceptions of woodland landscapes** – discussion groups,
**Choice experiments**, 
Fellowships / Placements,
Newsletters / stakeholder engagement.
Case-study Areas:

- Dorset (the Purbecks)
- Herefordshire & Shropshire
- Loch Lomond & Trossachs NP
- West Sutherland

West Sutherland – Loch Shin in far distance

Poole Harbour wetlands, Dorset
Wildlife Research

Basic requirements
- Understanding your 'stake'
- Interest in the resource
- Time
- Networks & Linkages
- Resources to do job
- Existing Structures
- Support

Getting started
- Leadership
- Convenership

Collaboration
- Knowledge & Information
- Communication
- Tolerance & Flexibility
- Trust
- Monitoring
- Change / Effect
- Understanding (of issues and perspectives)

Integrated Collaborative Output

Understanding 'stake'

Power to act
Project Outputs

- Peer-review papers
  - Deer legislation in UK (in JEP&M)
  - Deer as a ‘common-property resource’ (in HO)
  - Stakeholder analysis method (in JEM)
  - ‘Key ingredients’ of collaborative management ??
  - participatory-GIS (in JAE)
  - Venison markets
  - Choice experiments
- 6 Newsletters
- Policy & Practice Note
Management of roe deer in peri-urban Scotland
New issues are arising as deer are increasingly encountered in peri-urban areas.
- New ‘drivers’ and ‘impacts’
- Interactions between people and deer different

Old issues are still occurring, but with new ‘actors’, some who are not used to deer.
- New partnerships needed

Roe is the species of primary concern and interest

1. To provide an understanding of the relationship between people and deer in peri-urban areas.
2. To identify, scale and map the distribution of the ‘drivers’ of people-deer interactions in peri-urban areas.
Research Methods

• Discussion-groups & survey
  • to understand local community knowledge of and attitudes towards deer and deer management, and local deer management priorities and strategies.

• Ecological survey (thermal imaging)
  • to provide a more accurate knowledge of local deer presence.

• User workshops
  • to test the appropriateness and application of the ‘responsibility framework’. 
Study Area – Central Scotland Forest

http://www.csft.org.uk/
Case-Study Area 1 - Linlithgow
The ‘peri-urban’ environment

- The transitional zone blurring the divide between ‘fully’ urban and rural areas.

- A mosaic of mixed land-uses often including:
  - housing,
  - transport infrastructure,
  - industry,
  - agriculture,
  - forestry, and,
  - ‘natural’ areas
## Identifying ‘people-deer interactions’

<table>
<thead>
<tr>
<th>Positive Interactions (Values)</th>
<th>Negative Interactions (Impacts)</th>
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<tbody>
<tr>
<td>- Cultural value</td>
<td>- Agricultural and commercial horticultural damage</td>
</tr>
<tr>
<td>- Ecological services</td>
<td>- Woodland damage – economic production</td>
</tr>
<tr>
<td>- Seeing deer (aesthetic value)</td>
<td>- Woodland damage – natural heritage</td>
</tr>
<tr>
<td>- Economic value 1 – through recreational stalking</td>
<td>- Private garden damage</td>
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<tr>
<td>- Economic value 2 – as a ‘tourist’ attraction</td>
<td>- Road-traffic accidents</td>
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<tr>
<td>- Venison consumption</td>
<td>- Acts of cruelty towards deer</td>
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<td>- Intake of toxins by deer</td>
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<td>- Disease transmission</td>
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<td>- Damage to publicly important sites (parks &amp; public gardens, graveyards, golf courses)</td>
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</tbody>
</table>
Complexity - Road Traffic Accidents

Accidents involving deer

- Time of year
- Time of day
- Driver awareness
- Driving practices (e.g. speed)
- Proximity of deer habitat to roads
- Road design / layout
- Road traffic levels
- Deer movement
- Deer presence
- Roadside Information
- Habitat availability
- Economic need for mobility
- Transport planning & policy
- Lifestyle Choices (commuting)

Outcomes:
- Decreased animal welfare
- Increased economic costs
- Reduced human health & wellbeing

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Project Outputs

- Final Report
- Peer-review papers
  - Attitudes to management methods
    1. Qualitative (focus-groups)
       a. Naturalness
       b. Overabundance
       c. Effectiveness
       d. Impacts
       e. Animal Welfare
    2. Quantitative (survey)
       • Fencing & ‘scarers’ popular; culling not popular
- Popular article
- Posters
Human Dimensions of Species Management
Objectives & Methods

1. Raise awareness of our previous (and ongoing) research and illustrate what we can do.
2. Generate discussion about forest species and their management.
3. Identify some important, useful and interesting questions for us to answer.

A. Scoping and consultation
B. Literature review
Objective: Consult FC colleagues to identify future research needs relating to social issues influencing management of flora and fauna in forests.

Four emerging themes:

• Forestry objectives and wildlife management

Why does the FC manage wildlife? How does FC wildlife management fit with other FC objectives? Where does FC’s ‘mandate’ to manage wildlife come from?

• Wildlife stakeholders – types, perspectives and behaviour

What are ‘public’ (and other non-FC ‘stakeholders’) attitudes to wildlife management? Who opposes wildlife management and why? How can FC’s wildlife management be communicated?

• Forest use and disturbance

How do the different types of forest ‘users’ and forest use impact on flora and fauna?

• Change in the human dimensions of wildlife management

Where and when do species become a ‘problem’? How might environmental (climate) change affect wildlife management activities?
1. Scoping Report

2. Literature Review – ‘disturbance and forest use’

3. Information note – wildlife management and multifunctional forestry
Future Research

• More attention to how formal governance (legislation and policy) structures management responses
• Continued exploration of attitudes towards management
• Perceptions of ‘own’ (forest users’) impacts on wildlife
• Best partnership working practices for wildlife management & conservation
Thank you

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