

Improving the success of agri-environment initiatives: the role of farmer learning and landscape context

The FARMCAT project - Farmer context, attitude & training

PI: James Bullock - Centre for Ecology & Hydrology - jmbul@ceh.ac.uk

Project team: Matt Lobley - Centre for Rural Research, Exeter University; Richard Pywell - Centre for Ecology & Hydrology; Jerry Tallwin & Emma Pilgrim – Institute of Grassland & Environmental Research; Simon Mortimer – Centre for Agri-Environmental Research

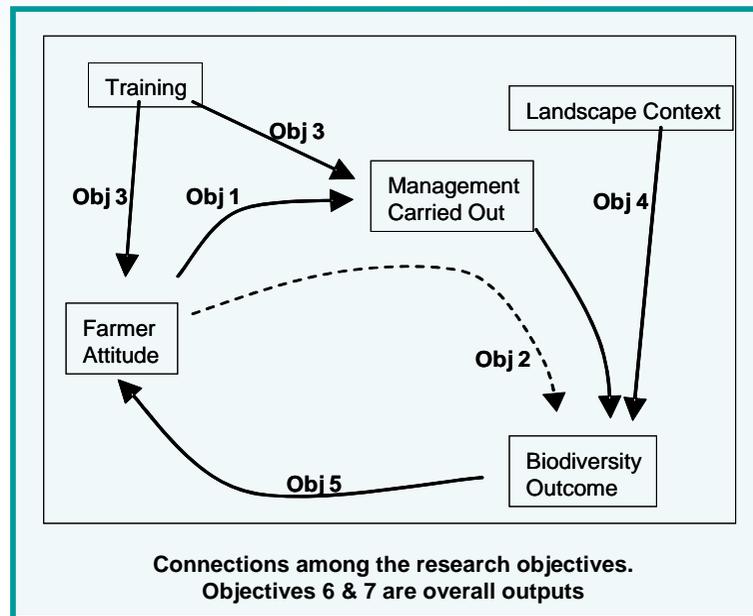
Project background

- Intensification of farming over the 20th century has led to huge biodiversity declines
- Agri-environment schemes (AES) encourage farmers to carry out wildlife-friendly management
- But AES do not always give the desired results
- This failure has social & ecological causes
- First, if farmers have poor understanding of the aims of AES, they may not do the best management
- Second, species rarity & obstacles to movement in modern landscapes may prevent species colonising habitats created under AES

- FARMCAT will be a five year study of how well wildlife habitats are created under AES, & whether training of farmers leads to creation of better habitats
- This will be linked to studies of how farmer's attitudes to wildlife-friendly farming may be affected by training
- And how the distribution of species & habitat types in wider landscape affects colonisation of new habitats
- This will lead to improved methods for wildlife-friendly farming

Objectives

1. Explore farmer attitudes & approaches to agricultural management under AES.
2. Determine whether farmer attitude affects the biodiversity outcomes of AES
3. Assess whether training of farmers can change attitudes towards AES & improve outcomes
4. Quantify how landscape factors limit development of biodiversity under AES
5. Determine whether environmental success of AES alters farmer attitudes
6. Develop models of social & ecological constraints on success of AES
7. Promote knowledge transfer between practitioners (farmers, advisors, scheme administrators) & researchers



Methods

- Examine pairs of trained/untrained farmers entering AES: in SW England grassland farms & C/E England arable farms
- Gain information on enterprise structure, social networks, educational history, attitudes & understanding of AES
- Re-visit in yr 4 to explore the long-term impact of training & environmental outcome on attitude towards AES management
- Do habitat & species surveys at scales from field to farm to landscape at the start & after 4 yrs
- Use survey, remote-sensing & map data to determine landscape structure & quality around each farm
- Link with habitat & species data after 4 yrs to determine if colonisation is limited by habitat availability & landscape context.
- Convene meetings with farmers & other stakeholders to inform our techniques & transfer knowledge.