

WBP ACADEMIC/VOLUNTEER RESEARCH PROJECT PROPOSAL 1

Project title:	Is achieving and maintaining favourable condition on a range of lowland heath habitats in Wales possible through grazing management alone or is mechanical intervention also required?		
Lead Organisation:	Natural Resources Wales	Project leader:	Jan Sherry
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Collaborating institutions:	PONT, NT, RSPB		
Location:	This question could be answered through the examination of Welsh case studies in a representative range of locations and heathland types. Suggested areas; Llyn, Anglesey, Ceredigion, Pembrokeshire and Gower		
Start date:	No set date	Completion required by:	No set date
Project rational/ What is the specific question being asked?			
<p>Many lowland heathlands are in poor condition due to under-management and abandonment resulting in the spread of rank vegetation, particularly <i>Ulex gallii</i> and <i>Molinia</i>, and scrub encroachment. Attempts have been made to restore and maintain these sites through a combination of management techniques; burning, soil stripping, mechanical management and grazing. However the long-term success and sustainability of different management regimes has not been assessed.</p> <p>Burning as a management tool on lowland heathlands can be problematic as it can promote dominance of <i>Ulex gallii</i> on dry heaths and <i>Molinia</i> on wet heaths, particularly if not followed by appropriate grazing. Prescribed burning in the lowlands is also avoided in some very public areas as it encourages arson burns and has an implication for landscape and access. Mechanical management is used as an alternative to burning but is very costly and is not always appropriate in complex landscapes of archaeological significance or in rough terrain. Depending on the type of site and characteristics of the heathland, mechanical management does not necessarily promote the regeneration of ericoids and can result in the spread of grasses and <i>Ulex gallii</i>. Mechanical management is not able to reproduce the subtleties of height and structure required by associated species that can be achieved by grazing.</p> <p>Therefore there is a need to determine whether grazing systems alone can be used to restore and/or maintain lowland heathland in favourable condition. The project needs to look at the impact of different grazing regimes on vegetation e.g. sheep only; mixed grazing with cattle; mixed grazing with ponies; cattle or pony only systems.</p> <p>The research could look at different broad heathland categories e.g.</p> <ul style="list-style-type: none"> • Ericoid dominated • <i>Ulex gallii</i> dominated • Grass dominated • <i>Molinia</i> dominated 			
Can this project be divided into more than one project? If yes, clarify above			
<p>Aims:</p> <p>The project could be divided in a number of ways:</p> <ol style="list-style-type: none"> 1) Comparing and contrasting restoration management and maintenance management 2) Comparing and contrasting sites (upland, lowland, urban and rural) and between regions 3) Comparing and contrasting different types of heathland – based on categories above 			

4) Highlighting case studies where heathlands are being sustainably managed and how this is being achieved				
Scale of project?	Site-specific? Name site & any designation.	Range of sites? Name sites & any/ designation.		Suggested site/s/locations?
This needs to be a long-term study looking at site restoration and recovery over an extended time period		Gower Commons (SAC/SSSI/non designated) Great Ormes Head and othe NE Wales limestone sites (SAC/SSSI/non designated) St David's coastal heaths (SAC) Pembrokeshire commons (SAC/SSI) Anglesey coastal heaths (SAC/SSSI) Llyn coastal heaths (SAC/SSI) Ceredigion (SSSI/non-designated)		
Access to previous data/reports on site?		YES	RA¹ attached	NO
Logistics managed by:	Lead Organization	YES Joint	Researcher	YES Joint
Opportunity for follow-on student placement with Lead Organisation?				YES/NO
Training element/skills required: Botanical: Species identification/NVC skills Agricultural management: understanding agricultural systems, machinery and habitat management techniques				
Expected deliverables: Written report providing recommendations on management in different circumstances Academic Papers Conference and workshop presentations etc.				
Resources required: Little equipment required for vegetation work e.g. quadrats, guides etc Transport to sites				
Any special considerations:				

Return completed form to Tracey.Lovering@cyfoethnaturiolcymru.gov.uk

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¹ RA: Risk Assessment