



## MFF Research Topics

### Restoration

- Invertebrate survey on Bleaklow restoration sites to assess effect of re-vegetation measures.
- Soil & Water monitoring on Black Hill before, during and after restoration work to assess the effectiveness of restoration work treatments.
- Propagation of Sphagnum species; which species are easiest to propagate; growth rates under specific conditions; trial plots across bare peat; establishment and growth rates of particular species.

### Access and Recreation

- Recreational use patterns across the Moorlands over the last 100 years: Analysis of the Peak Parks Aerial Photographs showing (visual scarring, changing land use patterns, geomorphology etc.)
- Perceptions of the moorlands by visually impaired visitors.
- A qualitative study of the MFF footpath restoration works (e.g. Higger Tor, Cut gate, Shining Tor). How satisfied are the public with these improvements etc?

### Economy

- A review of participative forums in the PDNP in order to develop a best practice model-their strength and weaknesses (e.g. local access forums, recreation forums etc).
- Identification of the financial worth of the moorland landscape to the tourism industry and proposals for tapping this worth to support management.
- Visitor contribution to the restoration of the National Park; feasibility and appropriateness? (possible public contributions towards the upkeep of footpaths, currently funded by external funding).
- Exploration of sustainability of funding for moorland management through carbon trading and grant aid

### Biodiversity

- Effects of restoration/ land management, wildfire on biodiversity (especially distribution of invertebrates)
- Surveys of BAP species or other species of conservation concern
- Effects of airborne pollution and soil acidification on biodiversity (bryophytes, dwarf shrubs, freshwater ecosystems)
- Efficient priority area selection of sites conservation and recreation sites (using data on birds, mountain hares, water voles, vegetation, footpath network), avoid conflict zones and maximising connectivity
- The relationship between burning of vegetation and the impacts of atmospheric deposition
- Grouse numbers in relation to heather cover (what is the desirable vegetation composition)
- Time series studies: repeats of former surveys to assess temporal change

### Landscape

- GIS land cover survey of the unenclosed uplands to establish accurate map of habitats and possibly land use (burning, heather structure, bare peat)
- Model to predict extent of peat resource and rate of loss of the peat resource from eroding areas and the carbon released from this loss (e.g. tonnes of peat/ km<sup>2</sup> per year of eroding ground, % loss etc)
- Hydrological catchment model of the Peak District
- Impact of wildfire/managed burns on soil biology from areas across Bleaklow & Kinder Scout
- How much phosphorous has been lost from the soil through the burning events of the Moorland areas (accidental and controlled)?

### **Water supply and fire**

- Impact of fire on chemistry/ physical structure of peat: percentage of surface that is effectively burnt and stripped of vegetation / nutrients, correlation with fire intensity/temperatures.
- Feasibility study towards the prevention of fire damage
  - Estimation of the impact of accidental fires
  - Spatial analysis of water supply to moorland areas most at risk to fires.

**This list is not exclusive and we welcome further research in the Peak District.**

**Please contact us!**