

FIRE PARADOX – GFMC Prescribed Burning Demonstration Network Inventory Sheet

Prescribed Burning Demonstration Sites - Site Description and Objectives -		Local Site Name: Crubenmore Estate		
Country: Scotland	Region: Dalwhinnie, Scottish Highlands	Location: 56°57'N 04°15'W		
Unit No./Admin. Unit:	Owner: Ralia Enterprises Ltd	Site area (ha): Unbounded open moorland		
UTM zone: 30V	UTM (x): UTM (y):	Map / Aerial photo : <input type="radio"/> Yes (Please attach) <input checked="" type="radio"/> No		
First established: 2003	Area(s) burnt (ha): 0.54	Fire return interval (or time since last burn, or next burn planned): N/A		
Number of plots (in case of an array of sub-plots for experimental repetitions, particular site differences or high number of operationally burned sites): 18 plots burnt, 6 in each of 3 fuel load classes				
Special remarks:				
Purpose of Treatment:				
Specific Treatment Objectives: Burnt as experimental fires for determination of fire behaviour characteristics and creation of empirical behaviour models as part of PhD and subsequent FireBeaters project (http://firebeaters.org.uk)			Objectives reached? <input checked="" type="radio"/> Yes <input type="radio"/> No Specify:	
Desired burn conditions to reach objectives (optional or if necessary as general prerequisite)				
Wind speed (m/s): Variable, range from 2 - 10		Wind direction: From west to east		
Relative humidity (%): Variable, range from 50 - 80		Soil moisture: N/A site on damp peat		
Air temperature (°C): Variable, range from 5 - 12		Burn period (time of year): October - April		
What problems do occur? Legal burn season restricted range of conditions in which experimental fires could be completed. Limited fire control equipment and man-power				
Site description				
Vegetation type (main species): <i>Calluna vulgaris</i>	Annual mean precipitation (mm/a):	Mean precipitation during time of burn (mm): Oct-Apr mean = 2.8 mm/day Oct-Apr total = 610 mm		
Fuel load (target fuel) (t ha ⁻¹): Variable, 3 fuel load classes, range from 4 - 17	Annual mean temperature (°C):	Mean temperature during time of burn (°C): 8		
Fuel description: Dense stands of building-mature <i>Calluna</i> dominated moorland.				
Topography: Mountainous	Slope (%) Flat (< 5)	Aspect: N/A	Altitude (m a.s.l.): 400	Soil conditions: Peat, waterlogged
Other:				

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Burn team specifications		
Parties involved: Staff from the Game Conservancy Trust and University of Edinburgh Local gamekeepers	Specific expertise or training: <ul style="list-style-type: none"> • Yes ○ No Please specify: Members of burn team had received fire safety and control training.	
Documentation of demonstration site		
Management plan: <ul style="list-style-type: none"> ○ Detailed management plan ○ Simple management plan • none 	Burn protocol: <ul style="list-style-type: none"> • Yes ○ No 	Monitoring of <ul style="list-style-type: none"> • Weather data ○ Fuel accumulation • Fire behaviour ○ Smoke
Presentations: Number of seminars, short reports and presentations given on results		
Photos/ videos: Photographic monitoring of flame height plus video for every fire		
Publications: Davies G.M. (2005): Fire behaviour and impact on heather moorland. PhD Thesis University of Edinburgh Davies G.M., Legg C.J., Smith A. & MacDonald A. (2006): Developing shrub fire behaviour models in an oceanic climate: Burning in the British Uplands. Proceedings of V International Conference on Forest Fire Research (in press)		
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