

Exmoor Swaling Review 2010/11

1st June 2011, Exmoor House Dulverton

Seminar Notes



Introduction

On 1st June 2011 the Exmoor National Park Authority hosted a seminar as part of its focus on improving moorland management. A number of moorland owners participated as well as representatives of the National Trust and Devon and Somerset Fire and Rescue Service to look back at the season, discuss progress with various projects and agree actions for next year. This report summarises the event. Further information and full copies of the presentations can be found at www.exmoornationalpark.gov.uk

Background

Over recent years there has been increasing concern that the character of Exmoor's moorlands is changing. This was highlighted in the *Exmoor Landscape Character Assessment 2007* and in *Moorlands at a Crossroads 2004*. Anecdotal evidence suggests that moorland is being managed less intensively, with less burning and grazing taking place than was the case 10 to 20 years ago. While much of this change has been driven by an ecological concern to create richer, more diverse habitats, various studies suggest that farmers and landowners are "turning away" from moorland. This could have longer term, more damaging effects on the landscape, wildlife and cultural heritage of moorland, as well as increasing the potential for wild fires.

A questionnaire survey was carried out by Exmoor National Park Authority rangers and the Exmoor Hill Farm Project in the summer of 2010 to explore land managers' perceptions of swaling and why this management practice has declined in recent years. Eighteen moorland managers were questioned and all but one were swaling less than they had in the past. Most felt that the current practice of burning small areas (2- 5 ha) was not practical and was the main reason that they did not swale. Many also felt that the rotation lengths were currently too long.

The National Park Authority ran a swaling seminar in December 2010, which allowed a number of these issues to be discussed. Around 90 farmers attended the meeting and the main issue emerging was the size of the burns.

Landowners, Natural England and ENPA staff later met to consider these questions and it was agreed that little research has been carried out in south west. A series of case studies to explore these questions were proposed together with a meeting in June to review the swaling season 2010/11. This paper summarises that meeting.

1 Review of Swaling Season

A series of updates were given from moorland managers and people involved with swaling including Maria Floyd, Peter Stucley, Tim Parish (ENPA), Nigel Garnsworthy (National Trust), Peter Golding (Fire and Rescue Service), and Heather Harley (ENPA)

Tim Parish, Exmoor National Park Authority

Tim outlined swaling progress on ENPA land over the winter. He made a number of key points;

- February and March 2011 brought some of the best swaling weather of the last 4 years.
- Little was burnt in the last two years, so there was a lot of catching up to do.
- 76.3 ha were burnt over 4 days.
- Three members of staff new to swaling were given training.

Site	Total Brnt	Total possible area	Rotation if continued (yrs)
North Hill	19.6ha	88.6ha	5 yrs
Cosgate	3.3ha	17.2ha	10 yrs (as burnt every other year)
East Anstey	9.6ha	53 ha	6 yrs
Haddon Hill	20.2ha	128.8 ha	7 yrs
Mill Hill	23.6ha	252ha	11 yrs

Peter Stucley - Withypool Common

Withypool Common is now in an HLS agreement and the owners had worked with Natural England to draw up burn plans for the site. Swaling and cutting are being trialled as part of the Moorland Case Studies. Peter gained HLS consent to swale a total of 9.7 ha divided between two sites, Withypool Hill and Portford Bridge. The work was carried out by Landsense and involved four people plus tractor and flail. The costs were approx £55/ha

Nigel Garnsworthy - National Trust Holnicote Estate

Nigel explained the scale of the National Trust estate, covering 12,500 acres, with 6000 acres of moorland, 2,500 acres of woodland, 14 farms and numerous SSSIs and SACs.

14 Burns took place this season, taking 35 man days (1 swale = ½ day with average of 5 attending the swale).

Preparation for the season took 8 man days including training volunteers, assessing burn plan and selecting sites, equipment maintenance (tractor, bowser, PPE).

The total area burnt in 2011 was 37.4ha which is 1.5% of burnable moorland.

The average burn size was 2.7ha.

Cost to the National Trust was roughly £5,300 taking 43 man days (£141 per ha).

Nigel explained the main issues this year:

- The aim is to burn 3ha blocks on a 15 year cycle. However there is a huge area to burn - 60% (1458ha) of the moorland on the Estate is burnable.

- 32 burns per year are required to remain in cycle (a total of 97.2ha per year) this would cost the Trust roughly £12,000.
- Lack of resources i.e. Trained personnel, equipment, time have meant that this has not taken place
- Unpredictable weather can lead to “playing catch up” the following year.

Maria Floyd - Brendon Common

Maria reported that there are 1,400ha of moorland which would benefit from swaling as a management tool on Brendon. No swaling took place during the last two years and the Commoners feel that there is much catching up to do.

During the last 2010/11 season 5 swales took place, in 5ha blocks (although 1 block got away due to a localised tornado). 5-8 people attended each swale. The costs were £1,940 +VAT, funded through the HLS management budget. A decision now has to be made by the Commoners as to the most appropriate way of looking after the swaled areas.

Brendon Commoners do have a shepherding payment for keeping livestock from sensitive areas. Swaling has helped as the newly swaled areas are particularly palatable to livestock.

Maria led an interesting discussion around the landscape and visual aspects of firebreaks, swaling and burn height which are set out in detail in her presentation.

Peter Golding - Devon and Somerset Fire and Rescue Service (DSFRS)

Peter reported that there had been a reduction in calls reporting accidental moorland fires, largely due to the positive attitude of landowners and a strong partnership between the DSFRS, landowners and ENPA.

Cases of arson had occurred on Exmoor (Withypool, the Chains), Dartmoor and The Quantocks, but they are now better equipped in dealing with arsonists. (Since the meeting two illegal fires have taken place at Molland.)

The DSFRS offered help and resources to prepare swaling risk assessments. In answer to concerns should a fire go out of control the advice is:

- Before swaling, as part of the risk assessment/preparation process, call the Fire and Rescue Service to notify the intention to swale, giving location, date etc. They will give support should the fire go out of control and not prosecute if a duty of care has been demonstrated.

It was confirmed that landowners, not the DSFRS who decides where a fire break is located.

Heather Harley - Summary of Swaling 2010/11 questionnaire

A short questionnaire was sent to moorland landowners and farmers. Of the 50 sent out, 9 responses were received.

- The average size of swale was 4.7ha
- On average four people attended each swale
- Each swale took approximately 28 man hours
- The average cost was £438 per swale
- Half of the respondents recorded heather beetle

A number of people had been put off swaling by the threat of prosecution and many felt the legal size limits were too small and that as a result moorland vegetation is deteriorating.

2. Points from the floor

i) Swaling in the past

- In response to the concern that burning destroys Sphagnum, it was pointed out that until recently Molinia was burned to provide 'early bite' for livestock. After centuries of this practise occurring, the Sphagnum is still present on Exmoor, so why is this practice no longer permitted? Nigel explained that a number of other wetland plants such as bog asphodel, cotton grass etc were also found in blanket peat and that burning was damaging to these species.
- In the past, Molinia was swaled, on a windy day to ensure a cool burn, but removing dead thatch.
- Overwintering native breeds of cattle used to keep the gorse down
- Aerial photographs taken during the 1940's showed that the edge of the burns, which were allowed to run their natural course ie no cut firebreaks, were wavy, therefore more natural looking. This could also lend itself to greater biodiversity by extending the "edge effect".
- Molinia used to be swaled every 1-2 yrs.
- Archaeology has been discovered on illegally burned areas.

ii) Vegetation response to swaling

- Where illegal burns had taken place and sphagnum was burned, monitoring should take place to record its recovery. There is the opportunity to carry out more research here and should be scoped.
- Repeated cutting of Molinia on Molland Moor and elsewhere had led to heather recovery
- The older the heather, the longer it takes to recover after swaling.
- Tall, mature heather shades the ground so suppressing new vegetation.
- Heather appears to regenerate best when swaled on a 6-8 yr rotation but with so much swaling to be done, where do we start? Burn the younger or the older heather stands first?
- What happens to the margins between the swaled areas? They tend to be left and become outgrown
- It is important to swale a combination of large and small areas

iii) Swaling and Policy / Legislation

- Decision makers are not on the ground therefore they seem to take a precautionary approach. This is why the research areas are so important. Arson areas must be included.
- There is a need to detach heather burning from Single Payment Scheme subsidies for fear of fear of penalties. *(NB. David Glaves (NE), not present had stated that to date there had been just 1 prosecution where a duty of care had not been shown. This was contradicted from the floor who reported that warning signs had been received from NE concerning burns which exceeded 10ha.*

iv) Swaling and Livestock

- Stocking levels and timing of grazing periods affect the moorland vegetation.
- On Dunkery Beacon, salt bags placed alongside the roadside by the Highways Agency are attracting cattle which tend to remain in that area, so not grazing target areas. HA is reluctant to position bins which would ameliorate the problem.
- The lack of overwintering/grazing of livestock on the moor is detrimental to the moorland vegetation.
- Livestock are attracted to newly swaled areas.

3. Progress Since the Swaling Seminar (December 2010)

Sarah Bryan (ENPA) – Moorland Case Studies

Sarah summarised progress since the meeting in December and in particular the Moorland Case Studies. This included consultation with the Authority on the Heather and Grass Burning Code, a Member Training Day, work with the Heather Trust, Parklife article, monitoring of heather beetle, the questionnaire, various meetings and media attention.

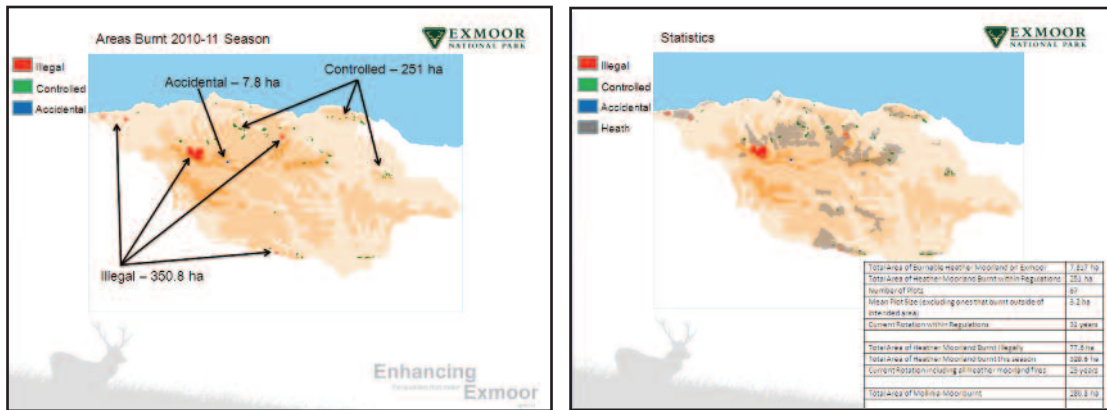
The Moorland Case Studies aim to answer a number of important questions

- 1 Is the practice of swaling declining on Exmoor?
- 2 What are the effects on wildlife of large burns compared to small ones?
- 3 What are the landscape and visual effects of large compared to small burns?
- 4 What are the relative costs associated with large and small burns?
- 5 How does land affected by heather beetle on Exmoor respond to a variety of restorative treatments?
- 6 What are the effects on wildlife of cutting molinia compared to burning molinia?
- 7 How do grazing animals respond to areas of burnt / cut moorland and does the size of burn affect their response?
- 8 How has moorland management on Exmoor changed over the last 50 - 100 years?
- 9 What has been the impact of historic large burns on wildlife, landscape and archaeology ?

The studies are mainly being carried out on 4 sites - East Anstey, Mill Hill, Withypool and Porlock Common. A local ecologist had been commissioned to carry out much of the monitoring and work was progressing well. Students / Heart of Exmoor were picking up on some of the wider studies, particularly the historic research. The detail of the swaling and cutting on the ground at the case study sites was outlined by Tim Parish

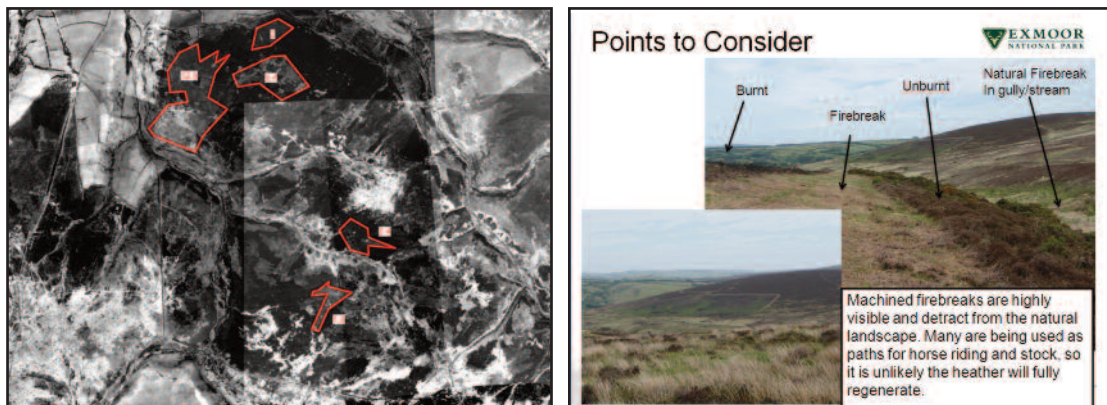
Tim then went on to look at illegal, controlled and accidental burns, (below, left). ENPA had drafted maps of areas burnt and this will be compiled each year.

The presentation included statistics on the amount of burnable heather and compared this with the actual area burnt (below, right). Examples of various sites were shown. The data showed that while this had been a good swaling season, not enough controlled burning had taken place.



Tim showed a series of slides from the 1940s (eg. 1946, below left) comparing burn sizes and shapes with current burns. These showed some burns of 2- 12 hectares and burnt to natural breaks

There was some discussion in the presentation on the visual impact of firebreaks and their ongoing use as (below right) which is damaging moorland character



Moorland Management Grant, Kate Harris (Exmoor Hill Farm Project)

Kate updated the group with progress on the Moorland Management Grant. There had been 5 applications which were currently being assessed (since approved).

www.exmoorhillfarmproject.org.uk

Moorkeepers / Moorskills, Jason Ball (Heart of Exmoor, Landscape Partnership Project)

Jason gave an overview of the scheme and explained the Moorkeepers and Moorskills projects. Further information at

www.heartofexmoor.org.uk

4. Next Steps - Suggestions from the floor and Key Actions

- ENPA to consider whether unofficial burns, particularly Molinia burns should be incorporated into the Moorland Case Studies, in particular looking at impact of burning on Sphagnum communities

ACTION – ENPA , NE
- Trentishoe appears to have had more illegal burns than most areas and should be considered for study

ACTION – ENPA, NE
- Potential for “Heuristic research” (experience-based techniques for problem solving) on Exmoor, particularly on appropriate burn rotations and burn sizes

ACTION – Heart of Exmoor, Exmoor Society, Stephen Head to scope
- Communication with DEFRA must continue, including site visits.

ACTION -NFU, ENPA, SWUF, Exmoor Society
- The South West needs to lobby to highlight the contrast between it and the Northern uplands. NE is critical in the lobbying process.

ACTION – ENPA, SWUF, Exmoor Society
- Need clarity on NE’s vision for moorland, including greater flexibility from NE and understanding of upland farming systems to ensure appropriate and sustainable grazing

ACTION – NE, ENPA, Hill Farm Project, Heart of Exmoor
- Winter stocking should be trialled – possibly by grazing by day and brought in at night.

ACTION – NE, ENPA, Hill Farm Project, Heart of Exmoor
- Need to continue to monitor heather beetle

ACTION – ENPA
- The momentum needs to be maintained. There will be another Exmoor Swaling meeting in December 2011 and then twice a year if required

ACTION - All