

CHAPTER 3. MOOR AND HEATH

Vision for moor and heath

All Exmoor's existing moor and heath retained and managed to conserve and enhance the variety of wildlife and landscape. The area increased, where appropriate, by reinstating former moor and heath that has been improved for agriculture or planted up for forestry.

Objectives and Indicators

Objectives relate to the Exmoor National Park Management Plan
Indicators may be shared with those from other plans or organisations

LP - Exmoor National Park Local Plan

BVPP – Exmoor National Park Best Value Performance Plan

AC – Audit Commission

CA – Countryside Agency indicators used in their ‘*State of the Countryside Reports*’

RWP – The Government’s Rural White Paper ‘*Our Countryside*’

NPA – ‘Headline’ indicators developed by the National Park Authorities’ Data Working Group

RO – Indicators developed for the South West’s Regional Observatory

Objective 3/1

To retain Exmoor's existing moor and heath and improve management to increase the age structure and dominance of heather, where appropriate, and the diversity of other native species.

Indicators:

Total area of moor and heath; area of moor and heath with >25% dwarf shrub cover; amount of moor and heath within SSSIs in favourable condition; total area of blanket bog; area of blanket bog under favourable management

Objective 3/2

To extend and enhance important moor and heath habitats.

Indicators:

Area of moor and heath recreated on former sites

Objective 3/4

To ensure that the variety, populations and ranges of species found on moor and heath are maintained and that research, survey and special management is carried out to ensure the survival of important and vulnerable species.

Indicators:

Populations of wheatears, stonechats, whinchats, Dartford warblers, heath and high brown fritillaries

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HOW IS THE AMOUNT OF MOOR AND HEATH CHANGING?

Current situation:

Exmoor has approximately 19,000ha of moor and heath

Trends:



Open semi-natural habitats on Exmoor and in Britain as a whole have declined greatly over the last century and are still in decline, although the pace of the decline has slowed. On Exmoor small amounts of heathland are being restored from conifer plantation but this is probably being balanced by loss of heathland to scrub.

Within the UK the semi-natural habitats which contribute to the wild quality of some of its finest scenery include acid grassland, dwarf shrub heath, bog, bracken, montane and inland rock, fen marsh and swamp, and calcareous grassland. The first four of these habitats are of primary concern to Exmoor and broadly fall into the category of moor and heath. The habitat has been in serious decline over the last two centuries. It is only in the late 20th century, however, that it has generally been considered a problem. Improvement for agriculture has always taken place and there were particular times when it was accelerated such as in the 14th and 19th centuries and in the two world wars. This was in no way special to Exmoor. The rate of reclamation on Exmoor on a percentage basis has been average for England and Wales and the percentage loss of moorland in Scotland has been greater, with 26% loss in the second half of the century, largely to grassland and forestry.

- *Exmoor lost over 65% of its moor and heath between 1913 and 1969. Source: Sinclair, **The Vegetation of Exmoor***
- *Exmoor lost 21% of its moor and heath between 1947 and 1976. Source: Lord Porchester, **A Study of Exmoor***
- *The rate of loss was greater in the drier areas along the coast. Exmoor lost 21-38% of its coastal heathland between 1947 and 1986 and 8% 1966 and 1990. Source: A.Cox, **Coastal Heathlands within the Heritage Coast of Exmoor***

Pattern of moorland loss on Exmoor:

Year	Area moor and heath (ha)	Loss in previous 20 years (ha)	Rate of loss per year (ha/y)
1940	26,500	1,900	95
1960	21,250	5,250	262.5
1980	19,000	2,250	112.5
2000	18,800	200	10

The pace of reclamation has slowed, though it is estimated that nationally 70% of moor and heath is vulnerable or in decline. Most of the habitats included within moor and heath have had 'habitat statements' prepared for the UK Biodiversity Action Plan, published in 1994, and more recent Habitat Action Plans. The action plans attempt amongst other targets to arrest the decline in these habitats. Of particular concern nationally is the decline in acid grassland, although on Exmoor the quality of much of this habitat is poor and it may be improved by changes to other semi-natural habitats.

- *Between 1990 and 1998 acid grassland declined by over 17% in England and Wales. Source: **Countryside Survey 2000***

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- *There is considerable change within semi-natural habitats even when the overall total may appear to be static. Between 1990 and 1998 in Great Britain there was an overall loss of 10% acid grassland but this was made up of a loss of 24%, mainly to improved pasture and a gain of 14%, mainly from improved grassland, bog and conifer plantation, so 76% of 1990 stock was carried over. There was a loss of 7% bog, mainly to acid grassland and dwarf shrub heath and a gain of 6%. In dwarf shrub heath there was a loss of 13%, mainly to bracken and bog and a gain of 9%, mainly from acid grassland, bracken and bog. Although bracken does not show any significant change, it had showed a marked decline between 1984 and 1990 and now this trend shows signs of reversing, despite policy schemes such as ESA and the Moorland Scheme to prevent its spread. Source: Countryside Survey 2000*

ARE NEW MOOR AND HEATH HABITATS BEING CREATED ON EXMOOR?

Current situation:

In 2002 about 10ha of conifer plantation had been restored to heathland

Trends:



There are plans in hand for the restoration of small amounts of heathland, amounting to about 20ha. The trend is upwards but below target at present

Some 5000 ha of moor and heath on Exmoor have been lost since World War II. About 80% was improved for agriculture and the rest was planted with trees. A complete policy change means that there are now opportunities to return some of these areas to heathland. A national target of 6000 ha by 2010 has been set for lowland heath. Exmoor's BAP has set targets of 200 ha by 2010 for lowland heath and 100 ha for upland heath.

So far the National Park Authority has removed some conifers on its own land at Haddon Hill and some private plantation has been removed on Wootton Ridge. There are similar plans for some National Trust and Forestry Commission properties through Forest Design Plans. There are no plans for the restoration of moor and heath on sites other than plantation or its creation where it did not formerly exist. Although research has been undertaken on restoration where moor has been improved for agricultural grassland, it would appear that this process is difficult and costly.

HOW IS THE BIODIVERSITY OF EXMOOR'S MOOR AND HEATH CHANGING?

Current situation:

Exmoor has 23 out of the 82 types of moor and heath vegetation under the National Vegetation Classification

Trends:



The biodiversity of Exmoor's moor and heath is changing but not necessarily for the better.

The figures for loss of moor and heath do not mirror the loss in quality/ diversity of the remaining moor and heath. Nationally it is estimated that over 50% of remaining heather moorland is in poor or suppressed condition. The same applies to Exmoor, where 63% of all moor and heath that was assessed

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within SSSIs (14,649ha) in 2002 was found to be in unfavourable condition. In particular the grass moorlands, including much belonging to Exmoor National Park Authority, were in poor condition.

- *In 2002 of the moor and heath within SSSIs that was assessed (14,650ha), 37% was in favourable condition; 21.1% was unfavourable, recovering; 34.5% was unfavourable, no change; and 7.4% was unfavourable, declining. The National Park Authority's Chains property represented about half of the unfavourable, declining moorland. Source: English Nature*

Exmoor has a relatively small proportion of the national total of moor and heath. However, Exmoor is regionally important for its extent of upland and coastal heaths, upland grass moor and blanket bog. It is nationally important within England and Wales for the presence of a wide combination of upland heath types. It has two rare types of heathland within the National Vegetation Classification: bristle bent (*Agrostis curtisii*)\ western gorse (*Ulex gallii*) heath and ling (*Calluna vulgaris*)\ western gorse heath. These are of international importance.

- *Exmoor has roughly 19000ha of moor and heath. This represents 1.3% of the total for England and Wales and 0.3% of the UK total. Source: Countryside Survey 2000*
- *In broad categories, the moor and heath comprises 6,700ha upland heath dominated by heather; 4600ha upland grass moor, 4,000ha of which are dominated by purple moor grass; 3900ha bracken; 1500ha lowland/western heath, including coastal heath, and 2000ha mosaic of heath or grass and blanket bog. Source: Exmoor and the Quantocks Natural Area Profile*

Biodiversity within moor and heath habitats is inherently low and changes in biodiversity need careful assessment. Nationally, according to the Countryside Survey 2000, there appears to have been a decline in the biodiversity of moorland grass mosaic vegetation types between 1978 and 1990. At the same time there were increases in the biodiversity of heath and bog vegetation. However, this increase appeared to be due to the increased frequency of 'weedy' species characteristic of disturbed and nutrient rich grassland. In most moor and heath habitats there appears to have been an increase of species characteristic of more fertile situations and decrease of those able to tolerate the low nutrient conditions normally associated with these conditions. These trends can be linked to over-grazing, disturbance and atmospheric deposition. There is evidence of decreased acid deposition and increased deposition of nitrates, which is leading to an increase of species more typical of semi-improved grasslands in lowland areas.

HOW IS THE STATUS OF EXMOOR'S MOORLAND BIRDS CHANGING?

Current situation:

*The diversity of birds on Exmoor's grass moorlands is very poor.
Exmoor still has important populations of some heathland species.*

Trends:



Populations of stonechat, Dartford warbler and dipper appear to be increasing.



Populations of skylark, grey wagtail and meadow pipit appear to be stable.



Populations of whinchat, tree pipit, ring ouzel, wheatear, willow warbler, lapwing, redstart, curlew, snipe, red grouse and redshank appear to be in decline.

If birds are an indicator of the health of the moorland, then Exmoor's heathland is not in the best of health and its high moor is quite sick.

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As Britain has a significant percentage of the world total of types of moor and heath, it also has a significant percentage of the world's moorland birds. Although Exmoor has small numbers of such birds, they may still be significant internationally. Moorland bird surveys were conducted on Exmoor in 1978, 1992/3, 1997/2000 and 2002 and the Exmoor Natural History Society has undertaken some single species surveys. Five Red Data Book (RDB) moor and heath species: merlin, red grouse, nightjar, Dartford warbler and curlew, breed in small numbers on Exmoor and amongst the candidate RDB species of snipe, wheatear and whinchat are more numerous whilst the ring ouzel is now possibly extinct on Exmoor as a breeding bird. Whinchat are thought to be present in nationally important numbers, the 448 pairs estimated in 1992/3 being about 1% of the population of the British Isles although these had declined to 292 pairs by 2002. Wheatears had declined by 53% since the first surveys. The stonechat population is of national proportions and, along with the dipper and meadow pipit is one of the few species surveyed that appears to be increasing in population. Skylarks, linnets and meadow pipits retain relatively high densities in areas of moor and heath on Exmoor whereas they have declined greatly in lowland areas elsewhere. However, the grass moors have a very low diversity of bird species and the 1978 survey showed that over 36% of such areas skylarks and meadow pipits were the only species recorded and between then and 2002 skylarks decreased by 19%.

Target species	2002 population estimate (pairs)	Apparent change since 1992/3	Importance of level of population
Hen harrier	0	None	
Merlin	2-3	Stable	Regional
Red grouse	Extinct?	Decline	Regional?
Quail	2	Stable	Regional
Lapwing	Extinct?	Decline	Regional?
Snipe	8-9	Stable	Regional
Curlew	5	Decline	Regional
Cuckoo	65	?	Regional
Skylark	1290	Decline	Regional
Tree pipit	129	Decline	Regional
Meadow pipit	2640	Increase	Regional
Redstart	131	Increase	Regional
Whinchat	292	Decline	International
Stonechat	468	Increase	International
Wheatear	57	Decline	Regional
Ring ouzel	4-5	Decline?	Regional
Grasshopper warbler	52	Increase	Regional
Dartford warbler	68	Recent colonist	National
Whitethroat	129	?	
Carrion crow	232	?	
Linnet	420	Increase	Regional
Yellowhammer	73	?	
Reed bunting	165	Increase	Regional

Bird populations and population trends on Exmoor moorland 1992/3-2002 from RSPB Exmoor Moorland Breeding Bird Survey 2002

Nationally there has been a small increase in numbers of curlew, lapwing and redshank in the last couple of years, due to conservation measures. However, this does not appear to be the case on Exmoor, where there is concern for the future of such species. Of particular concern is the snipe, with only 8 pairs in the 2002 survey. In the same survey ring ouzel had declined to 4-5 pairs from 13 pairs in the 1992/3 survey and 30 pairs in a 1988 survey. Anecdotal evidence suggests that this species has declined further since then and in a 2003 survey by the RSPB of two core breeding areas no breeding birds were found. Habitat change was suggested as the cause, with the encroachment of bracken and not enough short sward for the birds to forage on. Habitat change including localised overgrazing, swaling and scrub encroachment may also be contributing to declines in the populations of tree pipit and whinchat. Black grouse, a useful indicator of the general health of moorland, became extinct on Exmoor in the 1960s. The current most useful indicators are the three species with high priority for conservation: merlin, red grouse and curlew. Targets have been set for these and three medium priority species: whinchat, stonechat and tree pipit.

Exmoor's merlins are on the southern limit of their range and are particularly vulnerable with one or two breeding pairs out of a UK total of 550-650 pairs. Meadow pipits and other moorland bird species are the mainstay of their food and breeding success is very dependent upon the quality of the habitat. Along with red grouse, which are

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introduced on Exmoor, they require a mosaic of vegetation including heather, whortleberry and cotton grass and are sensitive to changes brought about by overgrazing, burning, drainage and reclamation. Merlins and red grouse are thus good barometers of the general health of the moorland. Indications are that moorland management prescriptions under the Environmentally Sensitive Area scheme are having a positive effect on moorland bird populations where they are in operation.

Actions

Some of these actions are objectives and actions from the Exmoor National Park Management Plan

Objective 3/3

To undertake research on techniques for the re-establishment of moor and heath and select suitable sites for implementation in order to achieve targets for heath and moorland restoration set out in the Exmoor Biodiversity Action Plan.

Action 3/1

Develop a moorland database

Action 3/2

Monitor and develop moorland management practices

Action 3/3

Implement the moorland research strategy

Action 3/4

Develop techniques for the restoration of moor and heath

Action 3/5

Implement the Exmoor Biodiversity Action Plan research on blanket bog, bracken and scrub, lowland heath and upland heath

NB The information contained in this report is based upon the best information available at the time. Although every effort has been made to confirm its accuracy and ensure that it has been used in the proper context, Exmoor National Park Authority cannot guarantee the accuracy of the information.