

Controlled burning of heathland vegetation at Blackhill SSSI, Dorset, England

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SUMMARY

At a site in southern England, approximately one third of a hectare of mature heather *Calluna vulgaris* was burnt in January 2000. Five years later, the burnt strip was revisited. It had fewer heather flowers and the sward was shorter (20-25 cm) than the surrounding vegetation (35-40 cm). Bristle bent grass *Agrostis curtisii* was more abundant (25% cover) than in adjacent unburned areas (5%).

BACKGROUND

Among the main factors affecting lowland heathland are the encroachment of trees and scrub and the simplification of vegetation structure due to a lack of conservation management such as light grazing, controlled burning and cutting (JNCC 1995). Controlled burning typically takes place in the late winter and involves burning small areas of mature heathland. The results of one such heathland burn in Dorset, southern England, are described here.

ACTION

Locality: The heathland site where the controlled burning was undertaken was at Blackhill Site of Special Scientific Interest (National Grid ref. SY 835945).

Heathland burning: Approximately one third of a hectare of mature, lowland heathland was burnt in late January 2000. The area burnt was mature heather *Calluna vulgaris* within an even aged-sward on a south-west facing slope. The area was back-burnt in a period of dry weather and when set alight, burnt well. Prior to burning, a firebreak had been cut to contain the burn using forage harvesters. Three RSPB staff was on hand to control the burn and a 100 gallon water bowser was also on-site for emergency use in case the fire got out of control and spread to adjacent areas.

CONSEQUENCES

Vegetation one year after: The slope where the controlled burn had taken place was



Photo 1. View of burnt strip in August 2005. The burnt area is a slightly darker strip running up the slope (tilting leftwards). The pale coloured grass on the slope is bristle bent *Agrostis curtisii*, which is clearly associated with the burnt strip. The purple is flowering heather *Calluna vulgaris*.

revisited in August 2005. The burnt strip was clearly visible and was quickly located. A few small charred pieces of dead heather confirmed that the location was correct. The strip supported fewer heather flowers and the sward was noticeably shorter (20-25 cm) than the surrounding vegetation (approx. 35-40 cm), which was not burnt. There were also a few clumps of bristle bent grass *Agrostis curtisii* that were clearly associated with the burnt strip, its total cover within the burnt area estimated at approximately 25%, compared to less than 5% outside it (Photo 1).

In addition, there were no scrub/tree seedlings within the burnt strip (about 10 small birch *Betula* saplings were present on the heath to the immediate south of the burnt strip).

The foraged harvested areas, cut to contain the burn, could not be located, suggesting that these had regrown to match the surrounding vegetation.

Longer term monitoring is required to establish the true effects of the burn on the heathland

vegetation and to look at its effects on germination of birch seeds in the seed bank.

REFERENCES

JNCC (1995) *Lowland Heathland*. In: Biodiversity: The UK Steering Group Report - Volume II: Action Plans (December 1995, Tranche 1, Vol 2, p 248).

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