

Tree and scrub clearance from heathland at Blackhill SSSI, Dorset, England

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SUMMARY

During the winter of 1995-1996 on a heathland in southern England, 1.6 ha of invading silver birch *Betula pendula* (40% cover) and gorse *Ulex europaeus* were cleared using chainsaws and burnt on site. Ten years later, the cut birch and gorse stumps were still visible; the area was largely covered in dense bracken *Pteridium aquilinum* (average cover in 5 plots 70%), a few patches of purple moor-grass *Molinia caerulea*, the only gaps being the fire sites. Little heather *Calluna vulgaris* was present and there was considerable evidence of birch regeneration, suggesting that further management would be necessary to prevent scrub reinvasion.

BACKGROUND

Encroachment of trees and scrub onto heathland areas poses a major problem for heathland managers. Without removal, tree species such as silver birch *Betula pendula* and Scots pine *Pinus sylvestris* can dominate, shade out the dwarf shrub community and result in a loss of many of the species associated with that community. Removal of mature trees can be time consuming and controversial.

Habitat management by the RSPB's Heathland Project over the period 1992-1999 was aimed at enhancing heathland habitats with a major component of the work being the removal of invasive scrub. Work at Blackhill Site of Special Scientific Interest (SSSI), southern England, is described here.

ACTION

Locality: The tree and scrub clearance was undertaken at Blackhill SSSI (National Grid ref: SY 837941), near Bere Regis, Dorset, southern England. It is a relatively small site, totalling 70 ha of lowland heath surrounded by farmland and woodland.

Birch and gorse clearance: Over the winter of 1995-1996, 1.6 ha of invading birch *Betula* and gorse *Ulex* scrub was cleared using chainsaws and burnt on site. The birch scrub covered approximately 40% of the site. The clearance and burning work undertaken was equivalent to approximately 40 person days.

CONSEQUENCES

Vegetation 10 years after scrub clearance:

The area cleared was revisited in August 2005, 10 years after the scrub clearance work was undertaken. Birch and gorse stumps were still visible and the bonfire sites where the brash had been burnt were also apparent.

Table 1. Percentage vegetation & bare ground cover in five 10 x 10 m plots within the cleared area, Blackhill SSSI, Dorset, 2005.

Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5
Gorse	10	10	20	30	50
<i>Ulex europaeus</i>					
Foxglove	10		10	5	
<i>Digitalis purpurea</i>					
Silver birch	30	10	20	20	<5
<i>Betula pendula</i>					
Sheep's sorrel	10		5		
<i>Rumex acetosella</i>					
Bracken	80	50	90	90	40
<i>Pteridium aquilinum</i>					
Bramble				10	
<i>Rubus fruticosus</i>					
Ivy					<5
<i>Hedera helix</i>					
Bilberry	10	10			
<i>Vaccinium myrtillus</i>					
Bare ground		30			

Table 1 shows the percentage cover estimates of vegetation and bare ground in five randomly selected 10 x 10 m plots within the cleared area.

The area was largely covered in dense bracken *Pteridium aquilinum* (by far the most abundant plant species present with an average cover of 70% over the five plots), the only gaps being the fire sites (which were still largely bare) and a few patches of purple moor-grass *Molinia caerulea*. Little heather *Calluna vulgaris* (a desirable and important component plant species characteristic of heathland) was present and beneath the bracken canopy there was considerable evidence of birch regeneration.

A number of other woody species were also present within the cleared area, including bramble *Rubus fruticosus* and sessile oak *Quercus rober*.

Conclusions: The presence of a number of woody species indicates that the area cleared is unlikely to return to open heath and re-invasion by scrub is inevitable without further management.