## Duke of Burgundy (Hamearis lucina)

Areas and status: Central southern England with a few outlying populations in south-east and northern England. Significant declines in distribution (-84%) and abundance (-42%) 1976-2014. The UK's fourth most rapidly declining butterfly, with especially heavy losses in woodlands.

Woodland type: Upland Broadleaved Woodland, Lowland Broadleaved Woodland, PAWS, Scrub

**Preferred habitat niches:** Glades, rides, edges, clear-fell, coppice and scrub mosaics. Breeds on Primrose in woodland clearings, regenerating coppice, young plantations; permanent glades and rides are essential. Note most populations now occur on scrubby grassland, breeding on Cowslip.

## Potential habitat management issues associated with decline:

- Overshading and scrubbing up of glades, rides, edges, clearings and scrub mosaics; rarely survives in clearings where standard tree cover exceeds 10%
- Colonisation of unshaded habitat, suitable for the Duke of Burgundy by bramble, tall grasses and other rank vegetation
- Abandonment or irregular coppicing and felling leading to loss of canopy gaps
- Re-stocking of woodland clearings and tree planting of open areas adjacent to woodlands
- Overgrazing of clearings, reducing sward height and larval food plant density
- Intensive management of rides and clearings, such as repeated mowing (e.g. more than once a year) leading to grassy swards and loss of larval food plants
- Habitat fragmentation and loss of connectivity leading to isolation of surviving populations

Potential habitat management solutions:	
Prescription	Comment
Rides, Glades	Cut in 2 zones: 1 regularly for access, 2 on a 5-8 yr rotation; breeding typically occurs in ride edge vegetation 2-5 years after cutting. Widen and enlarge if necessary; widths should be >1.5 times the height of nearby trees; scallop ride edges to create sheltered conditions. Scarify rides/glades to create shorter vegetation with patches of bare ground; do not scarify whole ride/glade at once.
Rotational coppice	Coppice 50x50m coupes on 3-10yrs rotations, leaving less than 10% standard canopy cover. >10 yrs rotations suitable where re-growth slow or in large area of coppice woodland. Coppice adjacent coupes or locate coupes beside wide rides and glades.
Small group clear-fell	Clear-fell coupes (max. 50x50m) on 15-30yr cycles. Clear-fell adjacent coupes or ensure coupes are linked by wide rides and glades.
PAWS	In plantations, retain scrub and open grassland mosaic; enlarge rides and glades as necessary.
Scrub	Maintain >10% scrub cover at a range of ages in clearings and edges. Cut on rotation to prevent overshading of breeding habitat.
Bracken	Sparse bracken is rarely problematic. Where stands are very dense spray, cut or bruise Bracken on a 3-10 yr rotation. Raking up and disturbance of Bracken can be undertaken in autumn/winter.
Grazing	Lightly graze woodland edges and other open habitat with cattle or ponies to create open, grassy, sunny conditions with abundant Primulas. Avoid sheep grazing if possible, especially between March and August. Fence areas where grazing is having a negative impact on coppice re-growth. Deer control will be required if they are causing significant problems.
Connectivity	Manage woodlands on a landscape-scale by widening rides which connect clearings within woods and link up with rides/clearings in adjacent or nearby woods.



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Pre 2005
2005 – 2014
Source: Butterfly Conservation