# **Woodland management**

Pheasants are birds of the woodland edge, which provides both shrubby cover and safe roosting sites on tree branches. Therefore, woodland management is an important part of management for pheasants, and the impact this has on the woodland habitat has been studied in some detail. Woodland also plays an important part of shaping the landscape for managing the birds on shoot days – driving pheasants between blocks of woodland and over the Guns.

#### How much UK woodland is there?

Thirteen percent of the UK's land area is woodland – 3.17 million ha. England is 10% woodland, Wales is 15%, Scotland 18% and Northern Ireland 8%<sup>94</sup>.

### How much of this is managed for pheasants?

14% of the UK's total woodland area is managed for pheasant shooting. In England, 28% is game managed, with 4% in Scotland and Wales<sup>23</sup>.

### What sort of management is done?

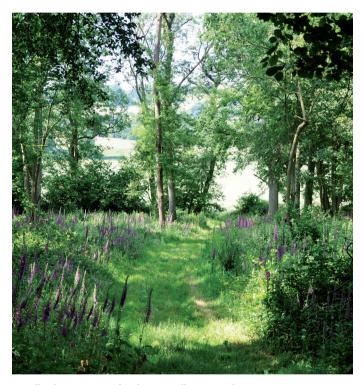
Firstly, it is important to note that game management appears to be one of the driving factors for landowners to retain and maintain woodland. Land managed for shooting contains on average ten times more woodland than that which is not managed for shooting<sup>95</sup>, and this woodland tends to be better managed in terms of coppicing, and maintenance of glades and rides<sup>1</sup>. Game estates are also more likely to plant new woodlands, particularly broadleaf woodland (as opposed to conifer plantations)<sup>95</sup>. Studies suggest that game shooting encouraged landowners to retain existing woodlands, and to plant new ones, particularly during the period 1960s-1980s<sup>96</sup>. Game managers use a variety of woodland habitat improvements such as: sky-lighting; widening woodland rides; coppicing; thinning; increasing diversity at woodland edges; encouraging ground vegetation; and planting new areas of woodland.

### What is sky-lighting?

Sky-lighting is creating openings in the canopy amongst mature trees, to reduce the tree cover and allow more light to penetrate to the lower levels. This is done by felling a group of trees, which creates glades. Game managed woods have between 2% and 7% less canopy cover<sup>1</sup>.

#### What does this do?

The increased light that can penetrate to the ground encourages more vegetation at ground level. A GWCT study of 150 woods in southern England showed that woodland managed for pheasants have 31% more ground vegetation than non-game woods. The study also found 22-32% more birds in woodland managed for pheasants<sup>1</sup>. Edges and gaps in canopy cover are thought of as being hotspots of biodiversity in woodland, and of great conservation importance<sup>97</sup>.



Woodland management for pheasants allows ground vegetation to grow, creating habitat for a range of species including rare butterflies and threatened woodland birds. © GWCT

### What is thinning?

Thinning is another method of increasing the amount of sunlight that reaches the ground in woodland, by removing individual trees spread across the woodland and reducing the canopy density throughout, rather than taking out blocks to create large clearings, as with skylighting.

#### What are rides?

A ride is any linear opening or track within a wood, including all the area between the trees on either side<sup>98</sup>. They provide additional sunny areas for pheasants and other wildlife, as well as access through the wood. Rides have a gap in the canopy above wide enough to allow sunlight to reach the ground, and ideally at least one and a half times as wide at the canopy level as the trees are high, with a shrubby edge profile at ground level<sup>85</sup>. Rides increase the carrying capacity of the wood for pheasants when they are more than 30m wide, but do not provide additional breeding habitat, which needs to be true woodland edge that faces at least 70m of open ground<sup>85</sup>.

### Why are they used for shoots?

Wide, sunny rides give important extra edge habitat which is attractive for pheasants, providing areas where they can dry out and feed with their chicks. The gamekeeper uses rides for access to manage woodland and feed birds<sup>93</sup>, and Guns are positioned within rides to shoot pheasants that fly over.

### Why are they good for other biodiversity?

Rides and glades tend to support a completely different profile of plants and animals from the rest of the wood<sup>98</sup>. Sky-lighting, and the creation and maintenance of rides are both techniques which allow more sunlight to penetrate woodland, and lead to more plant growth at ground level. In fact, it is thought that the lack of vegetation at this understory level may be one reason for the recent decline of many woodland bird species<sup>99</sup>. Woodlands managed for pheasants have a more open canopy, denser herb layer and 5-58% more ground level vegetation<sup>1</sup>. Studies also show that they can have more birds and butterflies<sup>1,6</sup>, In one of these studies, pheasant rides contained the highest numbers of 17 out of the 21 species of butterfly seen in the study<sup>6</sup>.

### What is coppicing?

Coppiced wood is cut periodically and the trees are allowed to regrow from the stumps. In an actively coppiced wood, an area of "underwood" – the trees that are coppiced – is cut each winter, and the wood usually also contains "standards" – mature trees that are left to grow (see inset).





### Why is coppicing done?

Coppicing is a traditional technique that has been carried out in woodland for thousands of years to provide crops of young poles as well as larger timber, but is much less common in modern woodland. Between 1905 and 1967, the area of UK woodland managed by coppicing fell by 85%<sup>100</sup>. As well as game management, one of the main reasons for coppicing today is for conservation<sup>100</sup>. Actively managed coppice is very varied in structure, and therefore provides an attractive environment for many different species<sup>101</sup>.

#### What effect does it have on woodland?

Coppicing keeps woodland more open and sunny, providing good habitat for many open-woodland species. Its loss over time has probably contributed to the lower amount of ground vegetation seen in less intensively managed modern woods<sup>99,101</sup>. In one study, in the later stages of the coppice cycle, the amount of light reaching the woodland floor in summer was only about 1% of that which reaches the ground in the open. This study also showed that, through the coppice cycle, the diversity of plant species at ground level increased for several years after coppicing, peaked at around 3-4 years and gradually declined after that 100. Coppicing also affects other woodland species – some butterflies, in particular, require the open conditions of newly cleared woodland, ideally provided by coppicing 101.

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## Shoot managers' obligation

"Shoot managers must endeavour to enhance wildlife conservation and the countryside."

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