Butterfly Conservation

MANAGEMENT FACTSHEET

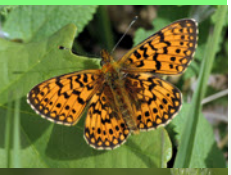
Creating a butterfly-friendly ride side scallop

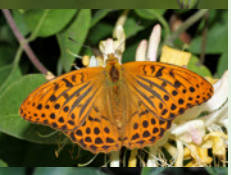
Butterflies and moths are disappearing at an alarming rate, but nowhere more dramatically than in woodlands. Ride side scallops can help provide habitats for many rare and declining species.

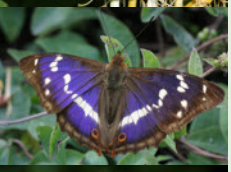
BUTTERFLIES AND MOTHS OF WOOD-EDGE HABITATS

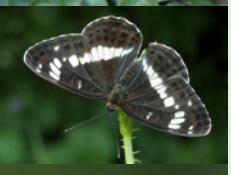
(*top to bottom*)

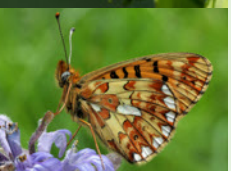
Small Pearl-bordered Fritillary
Wood White
Silver-washed Fritillary
Purple Emperor
White Admiral
Drab Looper Moth
Pearl-bordered Fritillary











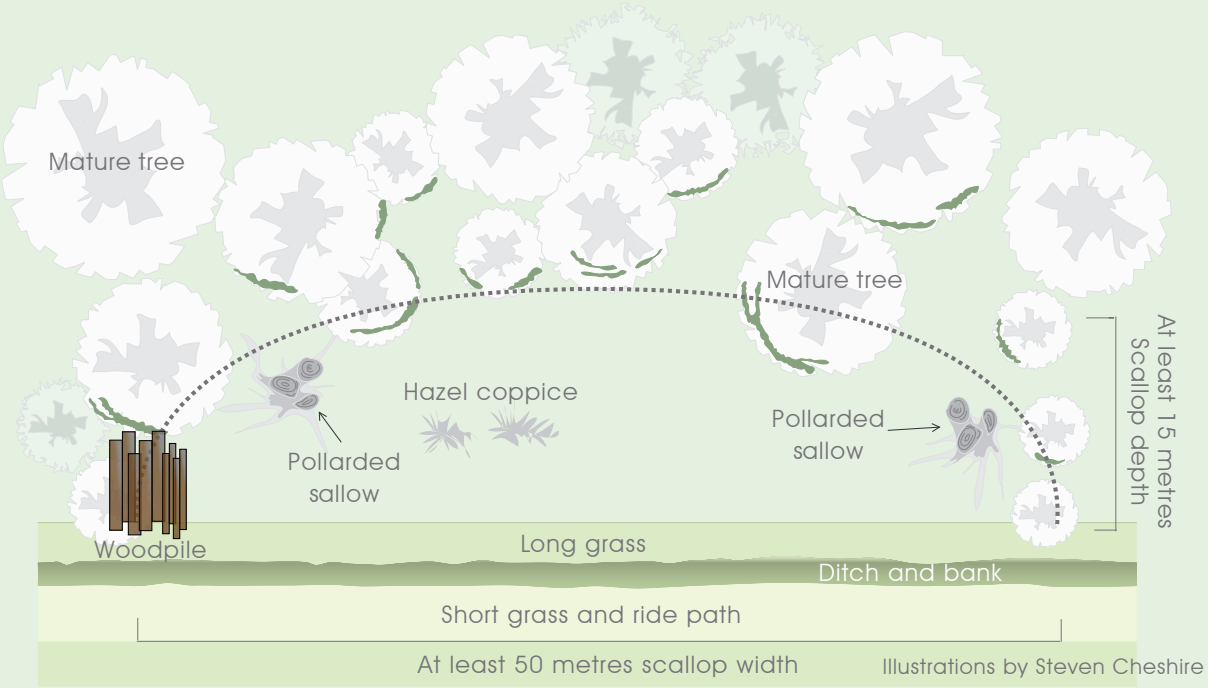
WHY CREATE SCALLOPS?

Woodlands are refuges for all sorts of wildlife and particularly for the 40 species of British butterfly that regularly breed in them. Open space is the most important part of a woodland for butterflies, especially its edge habitat where the warmest conditions are found. These warm conditions are essential for cold blooded species such as insects. However, many woodlands now contain very little of this habitat. Typically, wood edges are very abrupt and many rides are narrow and shady. Fortunately, butterfly-friendly edge habitat can be created through a programme of scallop creation within the ride network of most woods.

The best woodland edges support a varied habitat structure and will comprise of a series of graduated zones between the wood and the open area. Ideally these zones will be: - 1) native tree species, then 2) a mix of scrub species, 3) tall herbs and grasses, finally 4) shorter herbs and grasses with some bare ground. Even for species strongly associated with the tree canopy (Purple Emperor, Purple Hairstreak) or with shaded areas (White Admiral), woodland edges are still important for nectar resources or for finding a mate.

Cutting scallops creates a varied, zoned edge structure. Scallops also reduce shading along the adjacent ride and have great potential to improve any existing ride side butterfly habitat. They will increase the overall structural diversity of the woodland and provide sheltered herb-rich grassy areas.

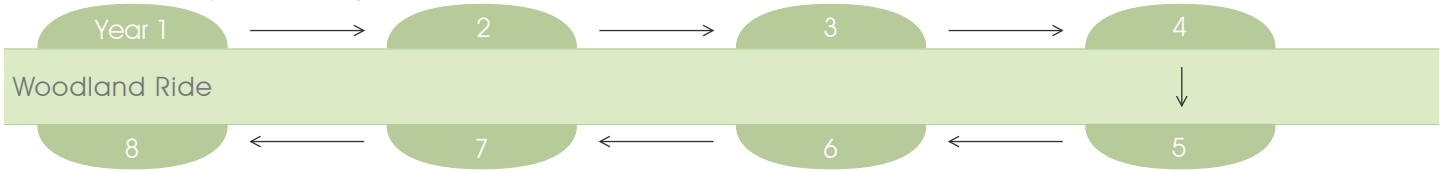
The optimum shape for a scallop is a “D” shape (see below), creating woodland edge at different orientations to the sun. This provides a variety of breeding habitats, which can be used at different times of the day or season or under different weather conditions (e.g. slightly shadier vegetation used in drought conditions).



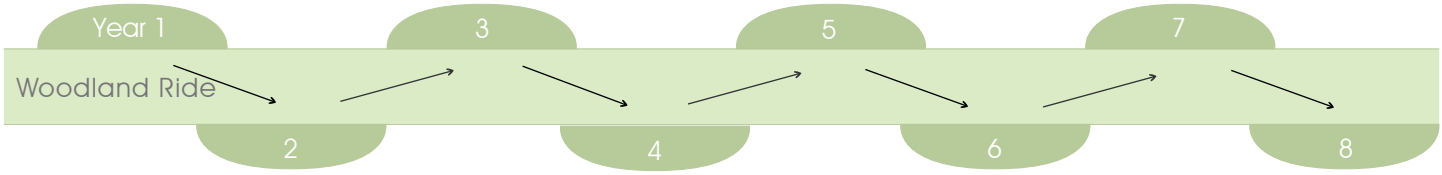
A “D” shaped scallop on the side of a woodland ride will create more edge habitat than merely cutting the adjacent length of the ride. Cutting scallops on opposite sides will increase the amount of sunlight and warmth reaching the centre of that ride. The warmest and most valuable scallops will be those which are south facing on east-west rides, thus receiving sun for most of the day.

Two examples of scallop positioning and cutting regimes

Parallel Cutting Regime (with opposite facing scallops) This regime will benefit species which prefer a particular aspect. At the end of each cycle, the re-growth at one side of the ride will be at a far more advanced state than the other.



Linear Cutting Regime (with offset scallops) This regime creates a far more varied habitat. At the end of each cycle, the re-growth at one end of the ride will be at a far more advanced state than the other.



RIDE SIDE SCALLOP CREATION

1 Consider carefully where the scallops are to be cut. Avoid sensitive areas, such as trees of conservation importance and areas used by scarce breeding birds. Be aware of any legal requirements such as felling licences, site designations and protected species.

2 Determine the number of scallops to be cut and plan the cutting programme (see above for two possible layouts). The aim is to cut one scallop each year and then leave to re-grow for a period of between 8 and 20 years depending on the site and species present. In an ideal programme, a new scallop should be created each year on a continuous cycle. Cutting should take place between October and the end of February.

3 Mark out the area to be cut. The scallop should be about 50 metres wide and at the very least 15 metres deep at the scallop centre.

4 Coppice all scrub within the marked area to ground level. If the wood has Purple Emperor then consider retaining and pollarding some sallow bushes.

5 Fell all mature trees within the marked area unless any are of specific conservation value.

6 Leave all standing dead wood. However, if you are unsure about safety issues then specific advice should be sought.

7 Deer browsing can sometimes be a problem in recently cut scallops. If this is an issue then protect re-growth by brashing, fencing or deer culling. Brashing (placing twigs over stumps to a height of 1 metre) is quick and cheap. If deer culling or fencing is to be considered then the Forestry Commission and the Deer Initiative should be consulted for advice.

8 Logs from felled trees should be stacked on the ride edge for removal/sale or made into habitat piles. Habitat piles should be half in shade and half with cut ends facing the full sun.

FURTHER ENHANCEMENTS

9 Consider creating a ditch between the short and long grass zones if not already present, but leave access for any future management work. The spoil from any ditch creation should be placed in the tall herb zone and can provide further habitat, especially if the spoil bank is south-facing.

10 Consider seeding or planting with local provenance seed or plant plugs. In neglected woods, the seed bank has often deteriorated. It may take many years for key butterfly food-plants to recover in abundance by natural processes and important species such as bird's-foot-trefoils and violets may be virtually absent from the wood. The following will be of particular value:

Common Bird's-foot-trefoil, Greater Bird's-foot-trefoil (Wood White, Dingy Skipper)
Meadow Vetchling, Tufted Vetch, Bitter Vetch (Wood White)
Wild Strawberry, Barren Strawberry (Grizzled Skipper)
Common Dog Violet (High Brown, Dark Green, Silver-washed, Pearl-bordered, Small Pearl-bordered Fritillaries)
Primrose (Duke of Burgundy)

OTHER CONSIDERATIONS

11 On the second scallop rotation, the trees along the scallop edge will have grown several metres. This will increase shading and therefore it is strongly recommended that scallop depth is increased by 3 to 5 metres during re-cutting.

12 Scallop creation should ideally be linked with sympathetic ride cutting. Aim to maintain a varied structure of turf heights, remembering that tall herbs can be important areas for over-wintering insects in all stages of their life cycle. Further details of ride management can be found in *Woodland management for butterflies and moths: A best practice guide* available as a download from the Butterfly Conservation web site.

Butterfly Conservation
Saving butterflies, moths and our environment

SITA trust — Enriching nature, Enhancing communities
Biffaward — investing in the environment
THE tubney CHARITABLE TRUST

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