DALE COPPICE – managing for our great grandchildren

John Handley – Ecologist

MSc. Biological Recording

Role: To provide ecological advise based upon annual field surveys.

Extent of Surveys: Eighteen individual sites owned by the Severn Gorge Countryside Trust surveyed since 2018. Following on from Dr. Kate Thorne, the previous consultant ecologist.

Approach: Application of Common Standards Monitoring, a method devised by Natural England and the Joint Nature Conservation Committee to assess the condition of statutory sites within the UK.

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THANK YOU FOR ATTENDING

It has never been more important than now to stand up for wildlife:

Of the 7,615 species found in England that have been assessed using the IUCN Regional Red List criteria, and for which sufficient data were available, 971 (13%) are currently threatened with extinction from Great Britain. 2021, State of Nature report produced by a partnership of over 70 conservation NGO's and research institutes.

"The UK is one of the most nature depleted nations in the world." 2018, WWF Living Planet Report.

"The truth is that the natural world is changing. And we are totally dependent on that world. It provides our food, water and air. It is the most precious thing we have and we need to defend it." 2022, Frozen Planet II, Sir David Attenborough.

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HISTORY OF BRITISH WOODLANDS

The history of British woodland since the last glaciation is, in geological time, extremely brief, and is inextricably linked with the development of civilization.

To quote Oliver Rackham in Trees and Woodland in the British Landscape (1990):

“the gulf of time which separates us from the end of the last glaciation is only about six times as great as that between us and Julius Caesar.”

Rackham, O., 1990. *Trees and Woodlands in the British Landscape*. London: Phoenix Press.

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AN EXTREMELY SHORT HISTORY OF ENGLISH WOODLANDS

PERIOD	YEAR	WOODLAND CHANGE
Mesolithic	c. 10,000 – 4,500 BCE	Climate stabilises and 'climax communities' develop.
Neolithic	4,500 – 2,000 BCE	Neolithic settlers arrive c. 4,000 BCE bringing crops, animals and weeds. Evidence of hurdle making and coppicing from c. 3,000 BCE. Formation of heaths with podzols due to woodland clearance on light, acid soils.
Bronze Age	2,400 -750 BCE	Area of heath extends.
Iron Age	750 BCE - CE 40	Oliver Rackham (1990) estimates that about half of England had ceased to be wildwood by 500 BCE. By 500 BCE Neolithic man had discovered that the regrowth from a stump is more useful than the original tree.
Roman	CE 40 – 410	Extensive coppicing to supply fuel for domestic use, ironworking, corn-drying and other uses.

Rackham, O., 1990. *Trees and Woodlands in the British Landscape*. London: Phoenix Press.

COPPICE-WITH-STANDARDS

Nearly all woodlands were intensively managed as coppice-with-standards system.

The majority of the trees and shrubs (the coppice) were cut at intervals of 3 to 20 years and allowed to grow again from the stump; other trees (standards) were left standing for longer periods, forming an upper storey in the wood and producing larger timber. Trees of a third type, pollards, repeatedly cut like coppice but at two to four metres above ground instead of near ground level, are characteristic of non-woodland sites and wood boundaries (Rackham, 1967).

A typical wood contained a continuous range of sizes of standard trees from about 45 cm basal diameter downwards. They were mainly oak, up to 70 years old, and chiefly of the smaller sizes.

Rackham, O., 1967. *The history and effects of coppicing as a woodland practice*.
Monks Wood Symp. No. 3, 82-93. Abbots Ripton, Monks Wood Experimental Station

AN EXTREMELY SHORT HISTORY OF ENGLISH WOODLANDS

PERIOD	YEAR	WOODLAND CHANGE
Anglo-Saxon	CE 410 – 1066	Anglo-Saxon charters (600-1080) are evidence that woods have names and boundaries, and were owned and managed.
Middle Ages	CE 1066 - 1536	Woodland and wood-pasture comprise 15% of England. Financial returns from underwood were greater per acre than from arable land.
Post-medieval	CE 1536 to 1919	18th and 19th centuries woodland oak lost its importance as a building timber as the New World is discovered and plundered (Peterken, 2001).
The Locust Years	1919 - 1975	By the 20th century about 90% of all timber and forest products were imported. Forestry Commission established in 1919 creating plantations.
Present	1975 -	Rio Earth Summit (1992) resulted in the Biodiversity Action Plans. Forestry Commission publish Practice Guides for the Management of Semi-Natural Woodland (1994). Continuous Cover Systems, coppicing, and other systems which maintain traditional woodland cover is seen as best practice.

Peterken, G.F., 2001. *Ecological effects of introduced tree species in Britain*. Forest Ecology and Management, 141(1-2), pp.31-42.

Forest Research, 1994. *The management of semi-natural woodlands*. Forestry Commission Practice Guide. Forestry Commission. Edinburgh. i-iv + 1-28pp.

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Since 1945 there have been more rapid upheavals than at any comparable period in the past. At least half the woodland area has been converted to arable or forestry. Most of the remaining woods retain their historical continuity but are no longer managed. Rackham, O., 1971

Rackham, O., 1971. *Historical studies and woodland conservation.* The scientific management of animal and plant communities for conservation, ed. by E. Duffey & A. S. Watt, 563-80. Oxford, Blackwell.

UNMANMAGED WOODLAND – SPRING COPPICE, LYTH HILL

Figure 1. Displaying the location of Oak saplings (canopy replacements) within Spring Coppice in May 2022.

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ECOLOGICAL VALUE OF RIDES, PATHS AND GLADES WITHIN WOODLAND

Forest edge species are particularly important in British woodlands (Ferris and Carter, 2000).

Open spaces provide both a distinct habitat and a variety of edge habitats facilitating more diversity than the tree-covered ground itself (Warren and Fuller, 1990).

The UK forestry standard set a target of between 10 and 20 % open space.

Ferris, R.; Carter, C. 2000 Managing Rides, *Roadsides and Edge Habitats in Lowland Forests*. Bulletin 123. Forestry Commission, Edinburgh, xxii + 86

Warren, M.S., Fuller, R.J., 1990. *Woodland Rides and Glades: Their Management for Wildlife*. Nature Conservancy Council, Peterborough, UK

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RIDE MANAGEMENT

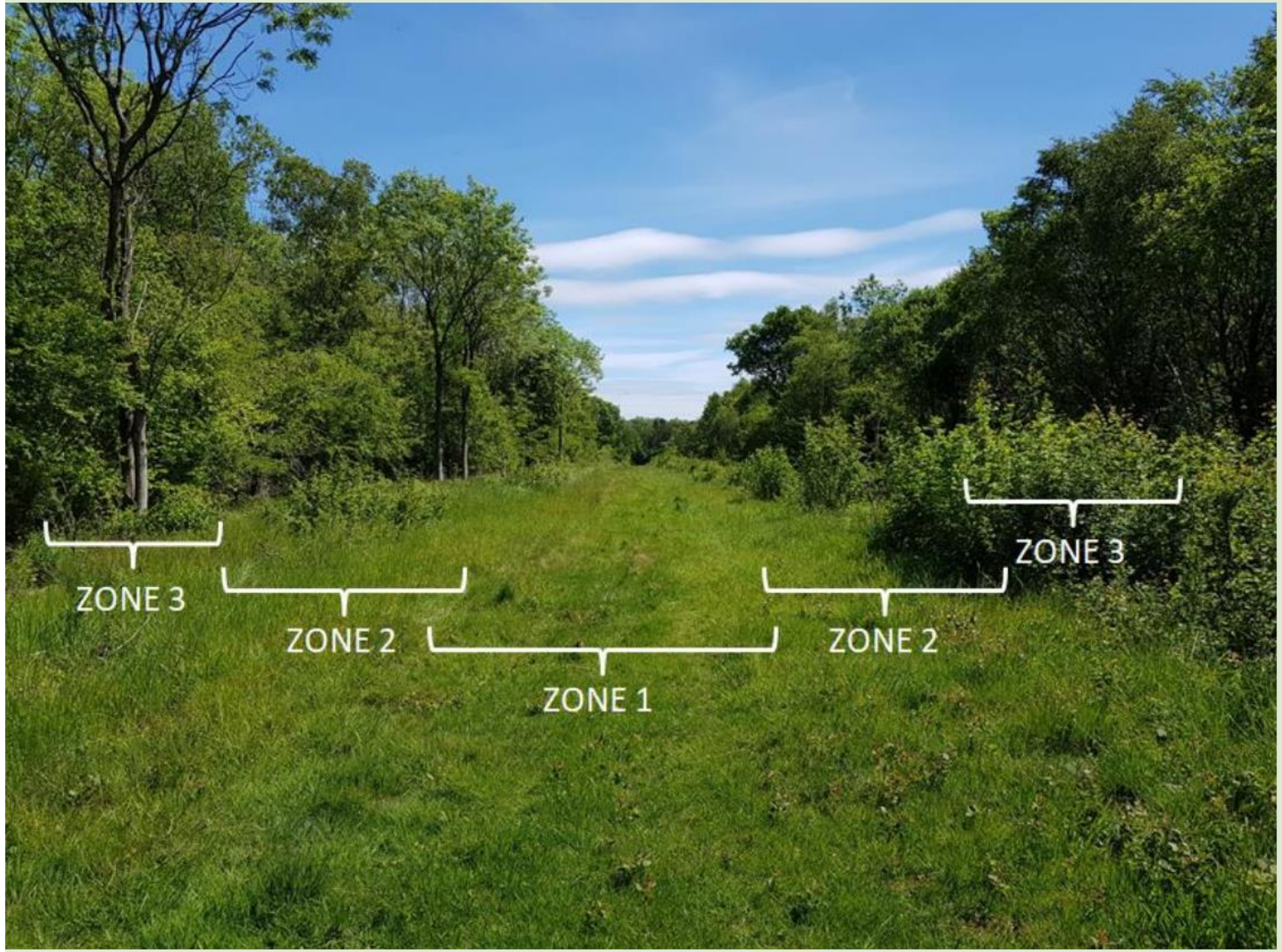

Figure 2. Illustrating three zones which provides a variety of structure as a consequence of widening the ride and implementing different management techniques in each zone.

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SPECIES OF CONSERVATION CONCERN AT DALE COPPICE AND LLOYDS COPPICE

FEATURE	NOTE
ASNW & SNW (UK & Salop BAP)	ASNW in the AWI, this woodland has been altered considerably by previous planting and felling.
Shrubs	Holly is often frequent, forming thickets; other native shrubs are often compromised by the frequency of Beech.
Bats (Protected UK, EC, Berne & Bonn)	Brown Long-eared, Daubenton's, Whiskered, Noctule, Common & Soprano Pipistrelle bats (recorded in 2009 using woodland, wood edge, track and pools). Particular attention is paid to any mature tree prior to felling and Ivy-clad trees good for foraging. Presence of canopy trees with dbh >100cms Presence of canopy trees in the 50-100cms class There should be graded woodland edges

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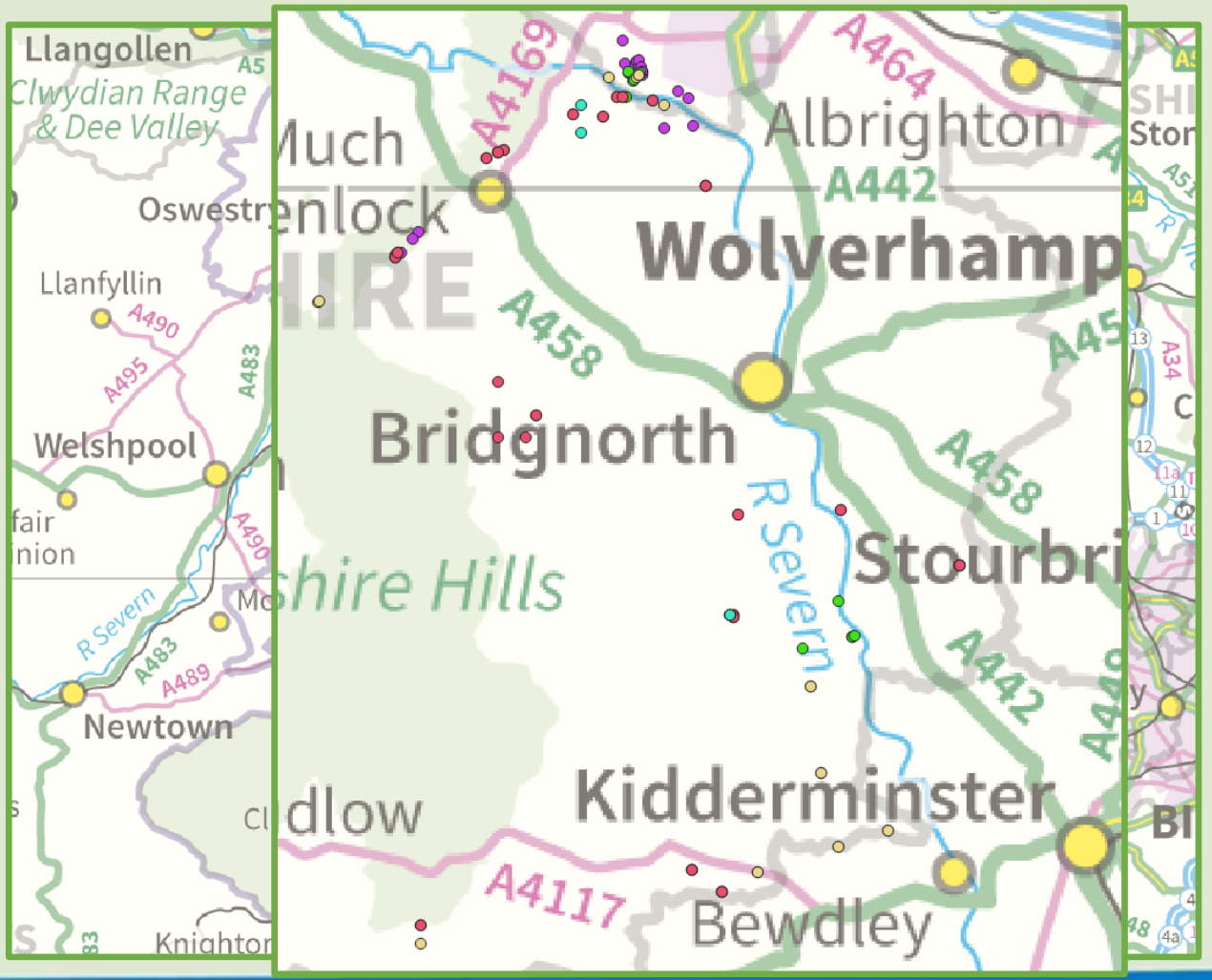
SPECIES OF CONSERVATION CONCERN AT DALE COPPICE

FEATURE	NOTE
Butterfly (UK & Salop BAP)	Dingy Skipper, One record 1999, record for small colony at adjacent Rough Park 2003, 2005 and 2006 – feeds on Bird's-foot-trefoil within close-cropped grassy areas. There should be no loss of heathland or grassland margin. Bird's-foot-trefoil should be at least occasional in grassland or heathland.
Butterfly (UK & Salop BAP)	White-letter Hairstreak, Colony on Wych Elm 2001, Favours Elm at different stages, with nearby rides supporting nectar plants. Elm should be maintained at different stages in sunny woodland edges.
Butterfly (regional medium priority)	Green Hairstreak, strongly associated with scrub; larva feeds on Bilberry at this site but may use several legume species (includes Bird's-foot-trefoil). Scrub should be no more than occasional in heathland. Some Broom to be retained as part of scrub allowance. No loss of Bilberry; possible gain through Heather management.

ADDITIONAL SPECIES OF CONSERVATION CONCERN AT LLOYDS COPPICE

FEATURE	NOTE
Badger (protected UK)	One Sett recorded in 1993 and 2010 with steep dry banks near farmland.
Butterfly (UK & Salop BAP)	Purple Hairstreak, recorded in 2008, 2014 (Lloyds Coppice). Likely that most caterpillars pupate beneath the ground in ant's nests. Where there is a shortage of honeydew the adults will be forced down from the canopy to nectar on Bramble, Hemp Agrimony and Hogweed.
Great Crested Newt (protected EU & UK)	Present 1994 & 1997. Not found in 2010. Woodland provides good foraging and hibernating territory but the pool is threatened by many factors (siltation, overshadowing, drying up in summer, succession and by presence of Bulrush). Managed to provide year-long water, with no less than 50% direct shade, and a coppiced margin at different stages.

VIOLET HELLEBORINE – *EPIPACTIS PURPURATA*



- 1930-1969
- 1970-1986
- 1987-1999
- 2000-2009
- 2010-

Date class	Records
1930-1969	4
1970-1986	53
1987-1999	27
2000-2009	13
2010-	28

Ellenberg value for light of 2 – a plant of deep shade

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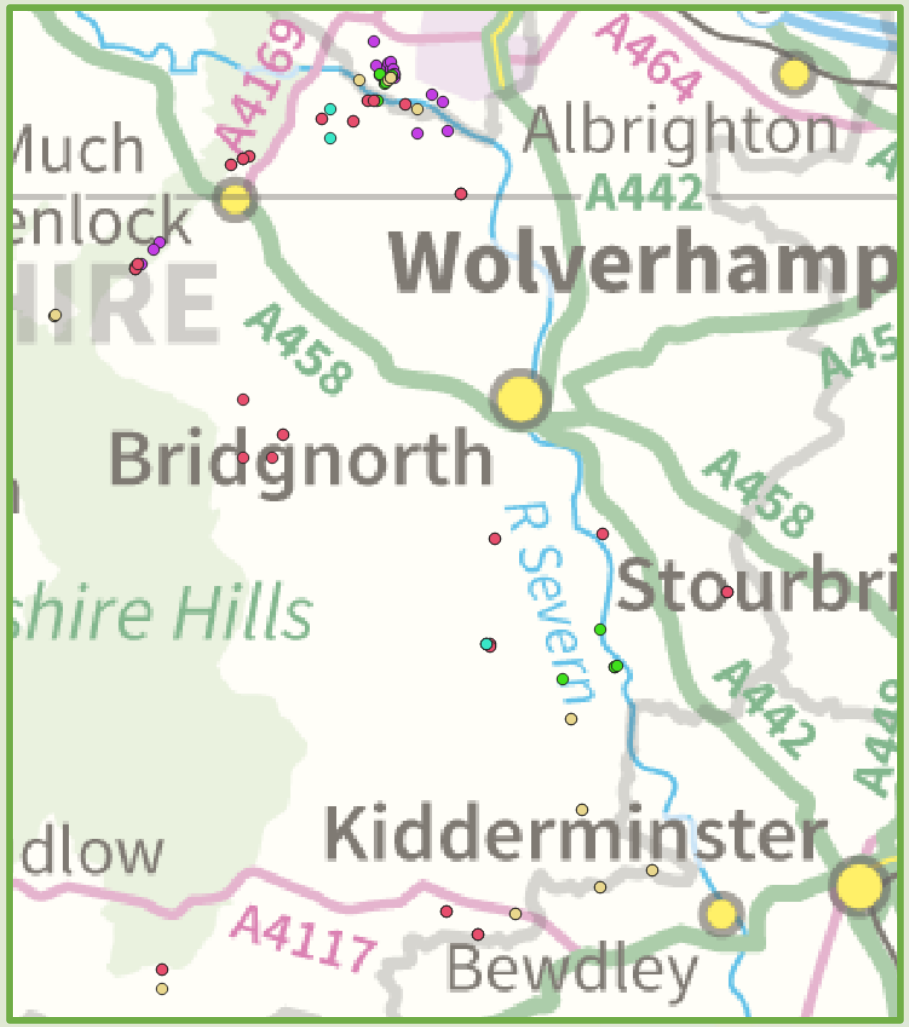
VIOLET HELLEBORINE – *EPIPACTIS PURPURATA*



- 1930-1969
- 1970-1986
- 1987-1999
- 2000-2009
- 2010-

"Local in Much Wenlock area and sparse in the southeast of region but perhaps slowly increasing."
Sinker, C. A. 1985. *Ecological flora of the Shropshire region*. Shropshire Trust for Nature Conservation. Pitman Press.

"It appears to be increasing, having turned up in places like the Wyre Forest and Flannog Wood since Sinker's Flora."
Lockton, A. J., & Whild, S. J. 2015. *The flora and vegetation of Shropshire*. Shropshire Botanical Society.

Stanmore Country Park opened in 1994, previously the site was part of the former RAF Bridgnorth, which opened in 1939 and closed in 1963.
July 2020, 28 plants recorded on the ride edge between SO74139274 and SO74219270

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