Rewilding versus re-creating and re-homing Lessons from a PAWS woodland

This article discusses lessons for rewilding from pursuing complementary management objectives to halt and reverse species' declines in a PAWS woodland.

SIMON LEADBEATER

Combining rewilding with countryside biogeography

My wife, Toni, and I own Priors Wood, a 54-acre woodland located near Ayot St. Lawrence in Hertfordshire. We also own a pasture of nearly five acres. Our woodland is a PAWS – a Plantation on an Ancient Woodland Site. Some landowners consider their woods in terms of what they want from them: for harvesting timber and woodfuel, for foraging and hunting, for recreation, for revenue generation, and combinations of all of these. The perspective presented in this short article is rather different. I look at my woodland and think, in what way has its treatment in the past contributed locally to the Sixth Extinction, and how can I ensure the wood's future management militates against species' declines and extinctions going forward?

To achieve this first I have tried to imagine improvements to the woodland's internal structure, so that moving inwards the wood's gradient becomes increasingly 'lovely, dark and deep,' from regular human activity in the shape of coppicing along ride sides to minimal intervention in the middle, to shorter shrubs along woodland edges to the tallest maiden trees in the centre. This way I can restore and enhance the woodland as a holistic habitat by slowly implementing a twin-pronged approach. The first strand of this entails 'rewilding' the centre of the woodland, which Clive Hambler defines as the "restoration towards greater naturalness"[1] and which Thomas Merckx has said should "cater for all kinds of biodiversity, i.e. for rare, range-restricted and ubiquitous species, for generalists and specialists, for currently threatened and least-concern species, for species operating at all kinds of spatial scales".[2] Second, along the woodland edges I aim to restore the site's relict features (ancient hedgerows and coppice), and to re-create some key environments in part by re-homing wild plants whose longer term *in situ* survival is doubtful, in a process which I will term 'countryside biogeography'. I learned this phrase from Ceballos et al. and it refers to making "areas heavily impacted by humanity, especially agricultural areas, more hospitable to other organisms".[3] The Hertfordshire countryside surrounding Priors Wood has most certainly been heavily impacted by humanity.

Rewilding Priors Wood's heart

My rewilding aspirations have been set out in my article 'Reaching Forward to the Past'[4] and focus on rewilding a central section of my PAWS woodland, as indicated in the opposite map. By rewilding I aim to encourage natural succession to create a climax woodland habitat, characterised by high volumes of dead wood and mature trees. A key feature of my approach is planting small-leaved lime saplings where in effect I have a greenfield site, or at least a bracken dominated area with poor regeneration. This summer I will begin controlling the bracken to allow greater natural regeneration and in the winter of 2016-17 aim to plant between 50 and 100 lime. The immediate task thereafter will be to ensure the survival of the lime, no easy task with a high fallow deer population and the ubiquitous muntjacs. Nevertheless, I think this will be relatively straight forward compared to the other ambitions I have, and in particular bringing the different elements of my twin-pronged programme into a complementary and cohesive whole.

Restoring key elements of Priors Wood

Another way of trying to understand rewilding is to emphasise what it is not; rewilding is the antithesis of coppicing, hedgelaying, and meadow management, all of which are wholly manmade artifices which casual observers of the countryside mistake for natural features. Priors Wood was a very unwild not untypical Hertfordshire hornbeam coppice-with-oak-standards woodland before most of the oak was clear-felled and replaced with a combination of conifers and oak saplings in the late 1970s. The conifers were removed ten years ago and naturally we as owners have considered to what extent we would like to return the woodland to the way it was. There are a number of considerations here. The first is that I take the view that the woodland has probably been exploited unsympathetically for centuries, and very likely introducing coppicing and favouring hornbeam formed part of a local extinction event, and at the time may have been every bit as violent a process as clear-felling the majority of the older oaks more recently. That said, both old growth and early succession woodland environments provide valuable habitats. Moreover, as we now live in the woodland and aim to benefit from it sustainably and harmlessly, naturally we hope to use firewood obtained through coppicing. It is a question of where and to what extent.

Unfortunately most of the surviving relict coppice stools which could be brought back into a coppice cycle are on the extremities of the woodland (allowed to survive in order to screen the PAWS effect on the woodland interior) and are very inaccessible. Having witnessed the clear-felling of our conifers using forwarders and other large-scale equipment, with the resultant severe rutting, it is not our intention to ever again allow large-scale equipment into the woodland; while horse-logging is very attractive it is also expensive especially when the end product is firewood for home consumption. For these reasons, with the exception of some very old hazel stools growing on what appear to be medieval terraces, the stored coppice on the woodland fringes will mostly be allowed to return to high forest. Where we will reintroduce coppicing is along the ride edges because of the ease of access for harvesting and then after-care, and also as we hope to create a dense thicket of coppice regrowth to buffer the woodland's rewilded heart. The limitations created

by access difficulties impede my vision for high forest to the centre with coppicing along the woodland's edges, but we have to achieve a structure which can be maintained sustainably and operate in a way which minimises harm.

The woodland is also surrounded by an ancient boundary hedge, made up mostly of hornbeam, but also some huge beech stools. Where appropriate, parts of this hedge have been alternatively laid, pollarded and coppiced, with some 'gapping-up' still required, and here my vision of managing the woodland edges will slowly be realised especially along the southern boundary. Finally, an important component of my restoration project concerns wildflowers. Priors Wood is haunted by intimations of the woodland's past, in the shape of pockets of wildflowers hidden away in corners and along edges where the forwarders failed to reach.

Re-creating…

It is difficult to know what the woodland would have been in years gone by, but clues reside in archaeological features (such as woodbanks), evidence of past management, other local woods and from contemporary observations. Crab apples, for example, no longer 'abound in the hedgerows,' as Flora Thompson reported in *Lark Rise to Candleford* writing of the late 19th century.[5] Crab apple trees are excellent for pollinators and add colour; they flower just as the cherries wane – so I have planted approximately 20. Equally I had no wild service trees, but the owners of a non-PAWS Hertfordshire woodland to the east of Priors has them growing naturally, and they very kindly gave me three which are all growing well.[6]

Palladian church – This meadow in front of Ayot St. Lawrence's Palladian Church is to the immediate southeast of Priors and could provide a source of seeds for the creation of the area's new meadows.

I am also re-creating what once may have been wood meadows. We already have a chalk slope, but near the middle of the woodland we have re-created what was almost certainly once wood pasture or a deer lawn. An 1837 tithe map shows a clearing in the woodland, where there was an area of pure conifers (without any nursed oaks) and laurel. We have cleared some of the laurel and did not replant the conifer area, to re-create wood pasture. However, we are trying to manage this area as a meadow, and plan to establish a pollinator corridor leading from the chalk slope in the northeast to the larger 'tithe pasture' near the centre of the wood. The location of these glades is also shown in Figure 1.

Re-homing…

While I am trying to improve the ecological value of the woodland, elsewhere wildlife homes are being degraded and species' declines are continuing. One particular habitat I am familiar with is my parents' garden in Harpenden, Hertfordshire. My parents' house was built in the 1950s on what was clearly a meadow, based both on the richness of the floral species mix together with the ancient hedge surrounding it and decrepit estate fencing lost within. Further down their lane is a much older property that used to be the washer house for the estate of Sir John Lawes, who with Sir Joseph Gilbert founded what is now known as Rothamsted Research. This washer house was left to a local policeman who saved the life of the owner; not satisfied with one home he built several houses on the once extensive gardens. This has led to the suburbanisation of what was once a country lane. This process of inexorable transition is no doubt typical of what is happening across much of the country, particularly in the South-East.

Belatedly I have started transplanting plugs and collecting seeds from the family home's lawn-cum-meadow and re-homing them to where I now live, Priors Wood. Here I hope the grassland habitats will be continuously enriched in coming decades in place of one that will inevitably suffer when my parents' home is one day sold.

Striving to achieve a balance and improving the local landscape

Hambler and Speight's 'Science Replacing Tradition'[7] cautions against too much 'biodiversity' and there may be a strong case for rewilding all of Prior's Wood. Rewilding the whole wood would be by far the easiest option but instead I am being guided by the woodland's historical features, and what we can achieve sustainably, which is why we are reintroducing coppicing in the main along ride-edges as here woodfuel can be harvested much more easily and the rest of the woodland is spared access by machinery. I am also mindful of Fuller and Warren's 'balanced' approach[8] and have also been influenced by those who have helped me to restore Priors Wood, perhaps particularly Dr Richard Bromilow, who sadly died in May 2016. Richard supported me in many ways over the last decade not least by creating a plant inventory,[9] which suggested that excluding the 5-acre meadow there are c.220 different species of plants. Were I to rewild the whole woodland I believe this plant diversity would decrease, as clearly some wildflowers prefer the light conditions associated with how the woodland was managed in a coppice rotation as an early succession habitat, and indeed some benefit from the woodland's open areas.

I also try to envision our land's longer term potential in its landscape context. We care

Richard Bromilow – Richard in better days helping to rake up all the grass arisings from our then newly planted orchard.

for nearly 60 acres, which includes the 5-acre field adjoining our wood. Here we have created a small orchard, which will accompany those on our neighbours' properties, and this field abuts a meadow to the immediate south, and is close to another one to the southeast in front of the village's 1778 Palladian Church, creating perhaps 15 acres of grassland in total. In short, by managing our grasslands sympathetically we contribute to a landscape-scale meadow habitat. The alternative would be to rewild our field, which in practice would mean allowing natural regeneration create an extension of Priors Wood. The field is a natural asset and a choice had to be made. We have chosen to embark on the more onerous journey of converting semi-improved grass into a species-rich sward to accompany two extant meadows.

Nature's timescales

Re-creating and re-homing the many plant species lost to the woodland will be challenging, a process where I hope to make an impactful start but need to find some means of progressing beyond my lifetime, as with restoring the woodland's relict features, such as the ancient boundary hedgerows and reintroducing coppicing on a sustainable scale. While rewilding is an important component in my woodland's management, this is based on a site-specific assessment and the opportunity which owning a PAWS woodland affords, and rewilding in the context of Priors Wood is being balanced by a number of equally important management objectives.

References

1. Hambler, Clive, 'The British conservation model: unambitious, irrational and afraid of nature? A personal viewpoint, '*The Systematist*, No. 36., 2015, p.7
2. Merckx, Thomas, 'Rewilding: Pitfalls and Opportunities for Moths and Butterflies,' In: H. M. Pereira, L. M. Navarro (eds.), *Rewilding European Landscapes*, 2015 p.108
3. Ceballos, G., Ehrlich, A.H., Ehrlich, P. *The Annihilation of Nature – Human Extinction of Birds and Mammals*, Johns Hopkins University Press, 2015, p. 164.
4. Leadbeater, S R B Reaching Forward to the Past - Rewilding the heart of a PAWS woodland to reverse species declines and extinctions.*'Quarterly Journal of Forestry,'* April 2016 Vol 110 No.22
5. Thompson, Flora, (1944) *Lark Rise to Candleford*, Penguin, p.116
6. To which I am very grateful to Dr Joan Dixon and Marcus Dixon
7. Hambler, C. & Speight, M. (February 1995), Biodiversity Conservation in Britain: Science Replacing Tradition, British Wildlife, 6:137-147.
8. Fuller, R.J. & Warren, M.S. (October 1995) Management for Biodiversity in British Woodlands – Striking a Balance, British Wildlife, 7:26-37.
9. Along with his Rothamsted colleague Dr Geoff Bateman