



REWILDING IN BRITAIN

The Farmers Club Charitable Trust

Hannah Robinson
Oaklands College

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SUMMARY

An investigation is undertaken to gain a greater understanding of “rewilding”. Three locations were visited: Mapperton (Dorset), Coombeshead (Devon), and Knepp (West Sussex). The visits consisted of guided tours and presentations, in which Knepp was the most in depth regarding the information given. Each location built on the knowledge of the previous place, resulting in a sound overview of rewilding and a great starting point to begin formulating a plan at Oaklands College.

INTRODUCTION

Rewilding was investigated to gain a greater understanding of what it exactly entailed, and how this can be replicated at Oaklands College. At Oaklands College we have ten acres of woodland and 400 acres of arable land, which we would like to explore rewilding parts of in order to maximise ecological diversity and increase biodiversity.

This author has particular interest in the conservation of barn owls in the UK. Statistics from the State of the UK Barn Owl Population 2023 Report show that there is a total of 1559 reported active barn owl nest sites, which is a drop from the previous year (2022) with 1807 active nest sites (Barn Owl Trust, 2023). In the 18th century, the barn owl was considered to be the most common owl in the UK, however, they declined during and after WW2, especially due to the intensification of farming. Barn owls typically hunt in their “home range” which equates to about 5000 hectares. Their main prey (approximately 40% of their diet), the field vole, typically can be found in rough grassland, however, the majority of the pasture in UK has been intensively grazed. The primary threat to barn owls has been the change in agriculture practices; before the war, fields were a lot smaller with many wildlife corridors (hedges), however, after the war large farm machines, e.g. combine harvesters and tractors, were introduced which could not successfully properly function or fit into these small fields, and so many wildlife corridors were removed in order to lengthen the fields. As well as the removal or conversion of farm buildings; eliminating potential barn owl resting places. It is these changes which have resulted in huge losses of farmland wildlife. By allowing the natural processes to restore grassland, it will provide cover, shelter, and food for barn owl prey, and thus also sustain barn owls. When conserving barn owls, people are very keen to erect new nestboxes, which is great, although there should be more emphasis on reestablishing the food supply that is currently lacking (Ramsden, 2023).

The “big four” rewilding success locations are currently Pleistocene Park (Russia), Yellowstone (United States), Oostvaardersplassen (Netherlands), and Mauritius and neighbouring islands. Rewilding can be defined as “a long-term aim of maintaining, or increasing, biodiversity, while reducing the impact of present and past human interventions through the restoration of species and ecological processes.” (Lorimer *et al.*, 2015). Some rewilding activities may include

reintroduction of species, assisted migration, natural recolonisation, instigating naturalistic grazing, and passive management (Lorimer *et al.*, 2015).

The term “rewilding” first arose from a collaboration between Michael Soulé a conservation biologist and David Foreman an environmentalist activist in the late 1980s, which resulted in The Wildlands Project in North America; this focused on releasing keystone species such as wolves and securing well-connected and large core areas. Which became known as the 3Cs approach; core areas, corridors, and carnivores. The flagship example of this is the reintroduction of wolves in the Yellowstone National Park. This initial vision was expanded by using Pleistocene megafauna replacements as it was proposed that the ecological structure of Pleistocene ecosystems is an appropriate baseline for ecosystem restoration. Therefore, surrogates for species hunted to extinction were introduced, e.g. Asian elephant as a replacement for the American Mastodon (Lorimer *et al.*, 2015).

Rewilding can benefit Britain in many ways by being a powerful solution to some of the current biggest global issues, according to Rewilding Britain (n.d.), it can help fix the climate crisis as saltmarshes, peatland, and trees are brilliantly adapted to soak up carbon dioxide and store it, supporting local economies by sustaining eco-tourism in the form of local shops, pubs, cafes in areas of outstanding beauty, reverse biodiversity loss by enabling diverse habitats to reestablish themselves, improve human health and wellbeing as wildlife can act as peaceful escapes or a way of connecting with each other, creates healthy soil and clean water/air which promotes unpolluted rivers for clean water, trees help filter air that we breath, and healthy soils bring us nourishing food, strengthens communities by uniting them in a bold vision for their neighbourhood, and mitigate extreme weather events as scrub and trees absorbing more water reducing the risk of flash flooding.

MAIN BODY

Mapperton, Dorset

Mapperton is an estate currently with 500 acres of land in the process of being rewilded, hoping to rewild another 500 acres in the near future. Mapperton has been “rewilding” for two years, so far. The land is technically split into two parts: one part arable, and the other grazing fields, with the joint ideal outcome of woodland pasture. It was previously used for traditional management, such as timber, fuel, and food. This included low input arable farming, extensive livestock grazing, fruit harvesting, coppicing, pollarding, and hedge laying. Mapperton now aims to employ regenerative agriculture, traditional conservation, and rewilding to benefit the local ecology.

On 15th May 2024, a two-hour guided walking tour was undertaken to gain a better understanding of what rewilding involved. The tour took place on the grazing fields as opposed to the arable land. This is because the arable land had a rewilding plan of being left completely alone for six years before moving livestock in, in order to let it naturally “recover”. Weeds are likely to grow, however, Ben, the tour guide, assured that the ecosystem would find a balance.

The grazing fields had Tamworth pigs, Exmoor ponies, and longhorn cattle grazing in the pastures. Not only do these animals aid in regrowth of flora, but they also act as seed dispersals. Particularly the pigs as they rootle, which promotes regrowth and natural regeneration of wildflowers, and they encourage more diversity of grasses. The only concern regarding livestock grazing is the stocking density, as too many animals may end up destroying the land rather than aiding it.

Mapperton was a good overview and introduction to the exploration of rewilding, however, the information provided was not in depth.



Image 1: Mapperton's grazing fields.



Image 2: Mapperton's grazing fields.

Coombeshead, Devon

Coombeshead Rewilding has ceased farming on 400 acres of their land. In order to restore the land, they have combined planting and seeding with grazing and browsing by buffalo, Exmoor ponies, and longhorn cattle, as well as rootling by their Tamworth pigs. Coombeshead has already seen a massive improvement in biodiversity; reintroduction in water vole, dragonflies are flourishing, insects are returning, and barn owls have moved back in to hunt over their meadows. Coombeshead Rewilding's goal is to reintroduce lost species and to maximise biodiversity.

Between 11th-12th July 2024, a two-day practical rewilding event was undertaken to improve comprehension of the rewilding process. This event included an evening of beaver watching, and information on the incredible work beavers can do to the environment. Over the two days, rewilding tours of coombeshead and tours of their reintroduction projects took place where different strategies of rewilding were discussed, such as meadow management and tree planting.



Image 3: The pond in which their beavers reside. The beavers' nest is located at the back of the pond.



Image 4: A dam in which the beavers have created.

Regarding the meadow management, an existing meadow, possibly from a different farm, must be cut once a year, baled, and immediately taken to a field in which the meadow is to be established. Unbale within four hours and use livestock to stamp it into the ground; this will help to bring in new species of flora. When planting new trees, it is ideal to plant them on the edge of thorny shrubs such as brambles, this enables the brambles to grow around the sapling, providing protection from animals which would be inclined to eat the sapling before established i.e., deer (see image 7). Once the tree has grown to a considerable height, this blocks the light from accessing the thorny shrubs, thus killing them so they do not suffocate the tree.

In order to replicate natural grazing of wild herbivores, the livestock, particularly cows as they are large herbivores, should be moved around the fields/land as if there were still large predators around. This means that the grazing would be more sporadic, promoting natural regrowth. This is also known as pulse grazing.

Coombeshead rewilding have a “species recovery centre” in which certain native animals are captive bred to then be released into the wild to reinforce wild stocks and recover lost species. The main species which they release are water voles; 3000 water voles are released annually. Other species include white storks, red backed shrike, beavers, turtle doves, wild cats, black grouse, adders, harvest mice, mole crickets, and glowworms.



Image 5: Captive white storks bred for release.

The course at Coombeshead Rewilding was very personal and tailored to each person's situations. At Oaklands College, we are looking to rewild ten acres of woodland, therefore the advice given was adapted towards that. Firstly, it was advised that a baseline survey be taken to establish which flora and fauna are currently residing in the woodland. It was recommended then to apply for a grant with the forestry commission with the plan being to leave the woodland

completely alone for a set number of years, then apply a permaculture design and a holistic approach to management with the overall aim being to handle any complexities as they arise.



Image 6: A small portion of the Coombeshead rewilded land.

Knepp, West Sussex

The Knepp 3500-acre estates were used as farming land, however, the land is technically not suitable for modern intensive farming with a low weald clay over a bedrock of limestone, therefore, the soil is incredibly hard in the summer and extremely boggy in the winter. In 2001, the estate received Countryside Stewardship funding to restore 350 acres of the estate. This resulted in a different mindset towards the land, leading, Charlie, the owner of the estate, to consider transforming the rest of his land to nature conservation. The conservation plan consisted of a process-led approach, essentially letting nature take the driving seat; this is what has come to be known as 'rewilding'.

Knepp is commonly known as rewilding pioneers and is a leading light in conservation movement. The project has resulted in an incredible number of

successes in such a short amount of time, such as the restoration of the purple emperor butterfly and critically endangered turtle doves and nightingales.

A small-scale rewilding workshop was attended on 17th July 2024 to further explore what rewilding entails. The day began with presentations from the leading ecologists of Knepp Estates which detailed the concept and history of the rewilding project at Knepp, and how this can be applied to smaller areas of land (150 acres or less). The presentations were followed by a two-hour walking safari to discuss the different aspects of rewilding on the estate. The afternoon consisted of discussing real-life case studies and connecting them to smaller scale projects.

This workshop covered the topic of rewilding in great depth and was the most beneficial project to attend. The imparted knowledge was clear and concise, taught in a manner that was memorable.



Image 7: Knepp is aiding in the establishment of free-living breeding white storks.

Rewilding was discussed not as a set of instructions but of a way of thinking, Knepp's definition was: "rewilding is restoring ecosystems by restoring natural processes". The process of rewilding entails natural processes leads to vegetation structures with wildlife and biodiversity which enhances the ecosystem's function. The natural processes are a balance of vegetation succession and natural disturbances such as lightening striking trees down; these have a dynamic relationship.



Image 8: A newly, naturally established oak tree, protected by the surrounding brambles.

England does not have any large wild carnivores or herbivores. For rewilding to be successful, there must be predators creating the ecology of fear (also known as trophic rewilding) in grazing or browsing animals to move them along often, creating uneven grazing, which promotes succession (see image 9). However, in England, the large herbivores are not wild but contained in fields which are rotated by farmers, resulting in even grazing.

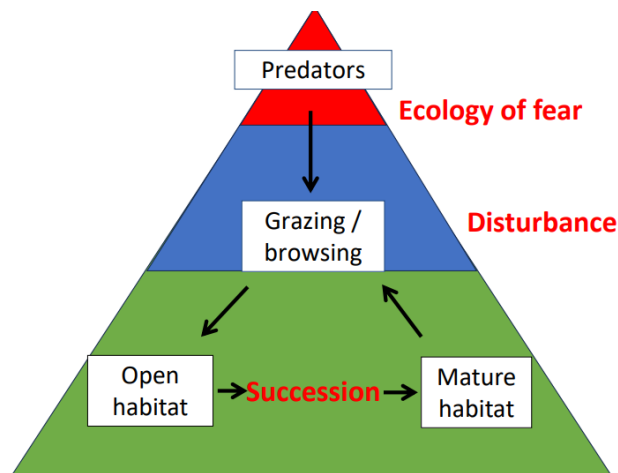


Image 9: shows the correlation between the top predators, large herbivores, and primary producers (Whitbread, 2024).

Despite this, England is unlikely to have the scale needed to introduce large carnivores as they are likely to require several 100sq km, and the area required to support free roaming interacting wild herds of large herbivores would require at least 10,000ha. Therefore, the effects that wild carnivores and herbivores would have on the land, needs to be replicated by domestic proxies of wild grazers such as cattle, pigs, deer, and ponies. Depending on herd size, these would need approximately 1000ha. The area required to support these grazers and browsers all year round would be a few hundred ha. This is rewilding on a rather large scale, thus, in order to rewild on a much smaller scale, the processes must be managed to fit the area available and so a disturbance regime must be created.

Smaller areas will need to manage smaller herds, however, if the area is too small for a few large herbivores, then the disturbance they would normally create will

need to be replicated by machinery and relying on native grazers such as rabbits and small deer (Image 10).

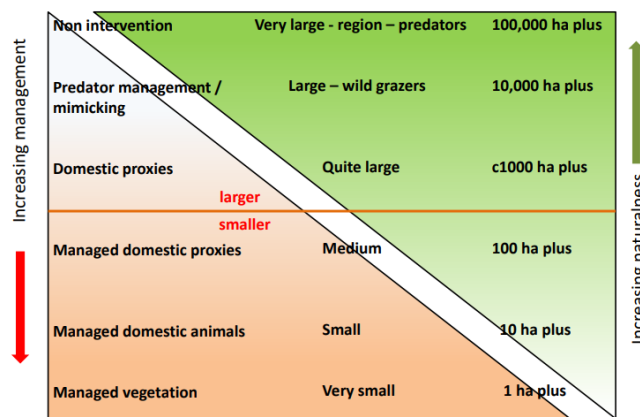


Image 10: demonstrates the differences needed when managing larger or smaller scale land (Whitbread, 2024).

When beginning rewilding on a smaller scale there are a few things to consider, such as existing site conditions, developing a working draft, and considering what process mimicking could look like in what has been lost in the land and what has been left behind. A desk survey is usually the best starting point, this entails looking at the landscape available i.e., on google maps and local biodiversity records, and then comparing this to historical mapping of what the land and biodiversity used to look like. This helps to understand the land and how the site fits into a bigger picture by seeing the aerial view of the location and to identify the needs and opportunities of the land.

A field survey of the land can be completed by assessing habitats, becoming familiarised with the ecology, and identifying further needs. Assessing habitat is crucial when it comes to predicting species and their trajectory, establishing condition, identifying threats, prescribing management, and monitoring change. A plan of action can then be formed, which is subjective and personalised to each bit of land. There may be some areas with specific requirements, i.e. needing assisted establishment and natural disturbance. Therefore, to create natural

disturbances with or without the aid of livestock, the following can be accomplished:

- Pulse or mob grazing.
- Patchy mowing or scything.
- Rotational cutting.
- Selected felling.
- Deadwood creation.
- General human generated disturbance.
- Reclaim lost ponds and hydrology.

The following two images illustrates what the British countryside currently look like and what rewilding aims for it to eventually look like.



Image 11: A vision of change.

CONCLUSIONS

After completing the research on rewilding, the authors knowledge has improved with a greater understanding on what precisely is involved in rewilding. A starting point has been established for beginning rewilding at Oaklands College, in which the students will be able to get involved with the surveys and planning process.

To continue exploring the concept of rewilding, it would be beneficial to visit successful rewilding projects abroad to further expand on the knowledge, but also

to see first hand a complete working ecosystem with large predators and herbivores to determine if this truly affects the success of rewilding and how this can be implemented in Britain.

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