

Rewilding... conservation and conflict

Those with an eye to the ecological potential of the UK will probably like rewilding. Those rooted in targets and condition statements or those with purist views of cultural landscapes may find rewilding awkward. This article discusses the themes and barriers to rewilding thrown up by current conservation practice and in doing so, hopefully identifies some solutions and compromises across different conservation mindsets.¹

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What is rewilding?

This might seem like a daft question to regular readers of *ECOS* but it's probably worth establishing some core definitions of rewilding, as below, to minimise confusion.

Rewild (verb) to restore an area of land or whole landscape to its natural uncultivated state often with reference to the reintroduction of species of wild plants or animal that have been lost or exterminated due to human action.

Rewilding (gerund or present participle) is a conservation approach aimed at restoring and protecting natural processes in core wild areas, providing connectivity between such areas, and protecting or reintroducing keystone species (which may or may not include large herbivores and/or predators). Rewilding projects may require active intervention through ecological restoration, particularly to restore connectivity between fragmented protected areas, and the reintroduction of species of plants or animals where these are no longer present.

The term rewilding was first used in print in 1990² and later clarified by Dave Foreman.³ It was then refined by Michael Soulé and Reed Noss in 1998 to refer to "the scientific argument for restoring big wilderness based on the regulatory roles of large predators".⁴ Their work focused on North America, recognising what were the three independent features that characterised contemporary rewilding, of "Cores, Corridors and Carnivores", and which has been adopted as the *raison d'être* for Dave Foreman's Rewilding Institute.⁵ In Europe the concept of rewilding has become distorted and diluted by geography, nature and culture. Some will say that most of Europe is too small, too heavily populated and too heavily modified to adopt such principles of continental scale rewilding initiatives that might appear threatening to cultural and political sensitivities. Or is it? May be this is just a convenient ruse perpetuated by land managers and conservation professionals to stifle a different view about the future of nature conservation in Europe?

As with many evolving ideas, we need to take a broad rather than restricted view of rewilding to appreciate its varied flavours and nuances. The following

Figure 1. A simple classification of rewilding

	ACTIVE REWILDING	PASSIVE REWILDING
NATURE-LED REWILDING	<p>"GIVING NATURE A HAND"</p> <p>Control external drivers only Reintroductions "on purpose" Tree planting</p> <p>Example: Assisted woodland regeneration</p>	<p>"NATURE DECIDES"</p> <p>Giving space for nature Reintroductions by in-migration Ecological succession</p> <p>Example: Land abandonment</p>
INTERVENTION REWILDING	<p>"NATURE ENGINEERING"</p> <p>Engineered habitat restoration Removal of human artefacts Control over nature</p> <p>Example: River restoration</p>	<p>"NATURE GARDENING"</p> <p>Fencing off Excluding human activity "hands off" approach</p> <p>Example: Excluding domestic grazing</p>

diagram categorises rewilding into active or passive and interventional or nature-led approaches.

Debate about rewilding's meanings has not been helped by the misappropriation of the term by anyone with an agenda involving some aspect of conservation that moves us towards a wilder nature, whether that is based on genuine ecological principles or not. Rewilding has become a many-flavoured thing, creating confusion, especially among the media-fed majority that restricts its coverage to red-top, headline grabbing stories about large predators and their supposed appetite for sheep and family pets. Even within the rewilding fold, the term has itself generated debate and disagreement.⁶ While its origins are rooted in our ancient past and our developing relationship with nature over the centuries⁷ some organisations have claimed it as their own; inventing and reinventing the basic concept several times.⁸ Rewilding comes with many challenges, not least in upsetting the *status quo* of traditional conservation practice, namely keeping nature firmly in its place where it cannot inconvenience human interests.

The challenges of rewilding

As I have described previously in *ECOS*, I see the world as a series of interlinked continua and approaches.⁹ Whatever flavour rewilding you choose, it can sit somewhere on the human-landscape-ecological modification spectrum as a 'process' that moves us towards a wilder and more natural ecosystem. The trajectory should always be unidirectional regardless of the means or the ends.

Figure 2. The cycle of nature-culture (After Carver, 2013)



Rewilding recognises that landscapes and ecosystems are dynamic and in a constant state of flux, responding to both the natural and human drivers that govern the world. Generally speaking, people don't like change and we like to assume a level of control over nature that in reality we don't have. We are also taught to believe that the nature of the recent past of a low intensity agricultural system, is the 'good' nature that we need to conserve and celebrate. Rewilding challenges that worldview by taking us beyond that 'good nature/bad nature' mindset into recognising that nature doesn't work to human rules. This inevitably results in different levels of conflict across a range of issues from human-nature relationships, cultural anxieties, political drivers and the neoliberalisation of nature. I consider each of these points below and consider their implications for rewilding.

Nature-culture

I dislike and distrust the whole 'nature as culture' thing. At best it is an academic distraction, and at worst it is a conspiracy aimed at undermining our appreciation of wilderness and wild nature. Nature itself isn't a human construct and it never was. Rather our view and understanding of it is. No amount of (re)imagining and (de)construction of nature is going to change a thing. Nature just is. Attempts by intellectuals¹⁰, academics¹¹ and more latterly the eco-modernist movement¹² to discredit the notion of wilderness, of raw nature outside of human control and modification, are for me akin to heresy. As humans we have modified and shaped nature to suit our own needs but this hasn't altered the laws of nature and the natural processes that govern the natural world. Even climate change doesn't alter the fundamental ways in which nature operates, though it does have implications for future nature - the winners and losers, the patterns of wild nature and the impacts of what might be seen as "unnatural" patterns in natural processes such as extreme weather patterns and species range shifts.¹³

Culture-nature

Another aspect of rewilding that creates problems for some commentators is the notion of "cultural severance" which suggests that allowing nature space to determine its own trajectory is somehow inimical to our relationship with nature and leads to a "dereliction" of those landscapes and biodiversity dependent on traditional land management practices. This erroneously labels rewilding as the bad guy by lumping it into the myriad list of causes of degradation of nature in the British countryside.¹⁴ Cultural severance is seen as somehow unique to the post-modern world, reacting falsely to what are seen as "bad changes" in the light of shifting baselines, whereas in reality it is just another continuum. Thus nature conservation based on yesterday's landscapes is all very well, but what about the landscapes further back in time for which we only have written or archaeological evidence? The notion of using the past as a marker, is indeed out-dated, because we should be thinking about the landscapes of tomorrow, in which rewilding can help ensure a place for new nature. While recognising the importance of some traditional and semi-natural landscapes for their cultural interest, we cannot preserve everything in aspic nor constrain wild nature to such a rose-tinted world view. Nature conservation takes place along a more extended temporal continuum and cannot be rooted in one moment no matter how appealing and bucolic the scene. The author James Mackinnon asks "How do we live in a wilder world? And what is the wildest world we can live in?".¹⁵

Targets vs trajectories

When I initially wrote this we were still in the EU, but I'm sorry to say that party is now over. What happens next is anyone's guess, but I do worry that nature conservation and forward thinking about new nature may not be at the top of everyone's agenda. However, despite the uncertainty, there is the promise of new opportunities to replace the perversities of the CAP and its impacts on nature conservation with something more eco-centric.¹⁶

Brexit aside, the policy directives from Europe have mirrored the ethos of UK nature conservation over the last 40 years or so, thus placing it in a continental European context. However, EU nature legislation is not without its faults and a climate of targets and condition statements has restricted some of our thinking when it comes to wild nature and natural processes. So much of current UK nature conservation policy and practice is enshrined in protecting species and habitats, the patterns of which mainly stem from traditional land management practices. Thus much of the UK's nature is present as a consequence of its ability to adapt to the ecological niches provided by farming, forestry, fisheries and other land uses. The EU Habitats Directive reinforces this approach by setting favourable conservation status on the conditions for which a site was originally designated. Thus a site designated for, say lacustrine freshwater species and habitats, would be deemed as failing under favourable conservation status (FCS) guidelines if it were to silt up (itself a natural process) and become a reed bed (itself a valued habitat type). There is little or no scope for natural ecological succession under such rulings and therefore rewilding is seen as contrary to these rules. For this reason, there have been calls for modifications to the Habitats Directive to allow natural succession to be the FCS for

selected landscapes.¹⁷ Protection for an increasing presence of wilder land arising through non-intervention will need a readjustment in the way nature conservation is viewed, and so the WRi called for strict protection to be recognised as part of the designation system for protected areas (see box) .¹⁸

Fear of the unknown and the Neoliberalisation of nature

Amongst land owners and managers there is a desire to remain in control. Farmers, foresters, gamekeepers, water companies and the like all have strong reasons for

Text from *A Vision for a Wilder Europe*¹⁸

Whenever possible “non-intervention management” should be an underlying principle for nature conservation in Europe, especially for the wilderness and wild areas. Natural processes should be allowed to function unhindered, especially in the larger and wilder areas, but the potential for this in many other locations should also be explored, especially in a wider land/seascape perspective. Improved natural resource management systems with more and larger sanctuaries where human land use (e.g. fishing and hunting) is not allowed must be installed, which ultimately will benefit both nature and human users. Natural processes should be seen in the context of four basic conservation principles:

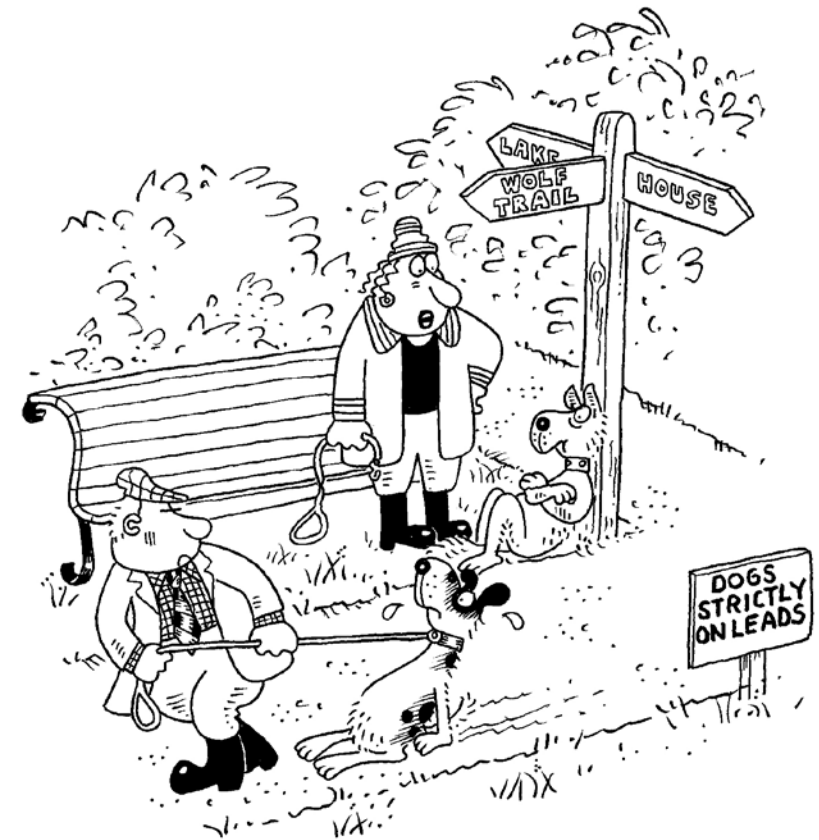
All the native ecosystems should be represented in a protected area system and conservation landscapes;

Viable populations of all native species should be maintained and allowed to fluctuate in a natural way, including dispersal through ecological corridors;

Ecological and evolutionary processes such as free-flowing rivers, wind, snow, herbivory and carnivory must be ensured; and

The conservation landscape should be designed and managed so that it is resilient to both short-term and longer-term change, such as climate fluctuations, through establishing greater ecological connectivity.

This will generate a higher-functioning and ‘wilder’ nature in Europe that operates far better than in ‘managed areas’, with more cost-effective management systems being less dependent on unpredictable shifts in the economic system, and thus create a more sustainable future for most animal and plants species. Naturally functioning ecosystems are also more robust and less vulnerable to external impact, thereby delivering better environmental services such as clean air and water, protection against flooding, sea level rise, and human caused fires, and adaptation to climate change. This approach is already possible within existing European legislation and it is more a task of making it happen, for instance, by identifying areas where natural processes can be an essential tool for achieving “favourable conservation status”. The management concepts identified as part of the new “Working Definition of European Wilderness and Wild Areas” should be promoted.



wanting to maximise the “known knowns” and minimise the “known unknowns” (to borrow from Donald Rumsfeld). For these people the “unknown unknowns” are just downright scary, especially when it involves nature that is red in tooth and claw! For years the nation worked hard to reduce the unknowns in the effort to secure predictable supplies of food, fuel, fibre and other resources from our land. As a result, our nature has been truncated and curtailed through the systematic removal of ‘pests’ and ‘vermin’ and other species that would otherwise be deemed ‘useless’ to economic land use. Adding rewilding to the mix alongside climate change and economic recession, just to put these species back and relinquish hard-won control, must seem like madness to some folk. Even in the conservation sector there is a desire to remain in control of nature. There is the view that if we leave nature to its own devices it’ll either fail to flourish or it’ll rampage uncontrollably over our micro-managed nature sites (and adjacent farmland) doing things we don’t want it to or didn’t expect. Hence the belief that we must actively manage, manicure and manipulate nature for its own good, keeping it in its designated place.

The conservation agencies’ work is seen as essential in maintaining ecosystem services for the benefit of the UK population. Economics has long neglected the

role of commons-type resources such as air, water, oceans, etc. and the natural processes that support, regulate and provide these services. However, recent years have seen an increase in the valuation of ecosystem services through programmes such as the Millennium Ecosystem Assessment, The Economics of Ecosystems and Biodiversity (TEEB) and the Natural Capital Committee. This emphasis on economics and a 'what's in it for us?' ethos represents a neoliberalisation of nature¹⁹, whilst ignoring the difficult to quantify, ethical, moral and intrinsic values of wild nature.²⁰ I appreciate this economic justification of the importance of nature, but it is too anthropocentric and needs balancing with a symbiotic appreciation of bio-centric values.

It boils down to nature which is convenient and unchallenging versus nature that is more scary and unknown. The former is represented by current conservation policy and practice in the UK, beholden as it is to land-owning interests, while the latter is represented more by the rewilding movement.

Brave new worlds?

There is an urgent need to better integrate rewilding into mainstream conservation and avoid a head-to-head conflict. There are encouraging signs that this is already happening as rewilding gains ground and elements of the rewilding ethos find their way into policy and practice. A good example is Natural Flood Management (NFM) wherein river systems, riparian zones, floodplains and even whole catchments are being allowed to develop more naturally, either through engineered or more *laissez-faire* approaches, to benefit water quality and wildlife, and reduce downstream flooding.²¹ Other examples include managed coastal retreat/realignment, rewetting of peat soils, reforestation of former grazing lands, removal of non-native conifer plantations, and in some cases, the reintroduction of locally extinct species to their former ranges. These might not be branded as rewilding, but that is what they essentially represent; a shift along the environmental modification spectrum towards a wilder, more natural ecosystem.

With much of the rewilding potential being in land of marginal agricultural value supported by production subsidies from the EU CAP, or the deep pockets of minority interests in grouse shooting or other country sports, this is a serious barrier for rewilding. A further blockage is a conservation industry that helps maintain this status quo despite the obvious negative impacts on a raft of ecosystem service values²² and is otherwise constrained in its thinking by our statutory system of nature protection and the EU targets and directives. Finally, there is an intellectual back-lash that sees rewilding as a threat to the personal interests of individual academics such as ancient peat cuttings or wood-pasture farming, though this is largely irrelevant beyond the intellectual and philosophical discourse of paper-writing and so presents no real practical barrier.

Rewilding necessarily takes a much longer-term view that spans generations into the future, beyond the shifting baselines of living memory. It is a part of an emerging new outlook in nature conservation; one that has a more diverse set of values, and one that has better relationships with other species, land, sea and the stuff of landscapes (i.e. the zero nature of Figure 2). Views of landscape and nature as something entirely

of human creation are as unhelpful as those that see nature and humans as entirely separate entities. To this end rewilding represents a middle-ground.

Nature-led ecosystems

Perhaps the name 'rewilding' is its own worst enemy? I have always preferred 'wilding' as the 're' can signify turning the clock back to an earlier time before humans came to dominate the world's ecosystems. This is clearly impossible and not helped by maverick papers or projects promoting Jurassic Park style experiments in genetic reconstitution of extinct species. So maybe it's time for a change? A friend has suggested "nature-led ecosystems".²³ This is a highly descriptive, non-pejorative, non-threatening and easily understood term. Maybe it lacks some of the pizzazz of rewilding, but perhaps it might be easier to swallow by those resistant to rewilding ideals and frightened of something that sounds extreme?

The harnessing of nature's capacities to help us with reducing flood risk may be a breakthrough moment. It might help more people understand the short- and medium-term benefits of changing parts of existing landscapes towards being wilder in various ways. In future, landscapes that are celebrated and protected may include places that have experienced deliberate interventions towards a wider ensemble of species which are permitted to develop with minimal intervention because such ecosystem dynamics are appreciated. Fear of the wild habits of floodwater may trump fear of wilding itself, galvanising enough interests to challenge the current approach to taming rather than wilding nature. Time will tell, but the wilding genie is out of the bottle...

References and notes

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Blocking agricultural drainage ditches has slowed runoff and increased floral diversity, Alladale Wilderness Reserve.

Photo: Jennifer Gooden



The red tape of rewilding

As rewilding gains traction in conservation, a host of regulations and policies makes implementation more difficult. This article summarises results of a study of regulatory barriers to rewilding in the UK and the Netherlands.

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Regulatory Context

In recent years, there has been an increasing interest in restoring functioning natural ecosystems¹, a phenomenon reflected in the growing attention on rewilding. As a form of conservation, rewilding operates in the context of regulations and policies that govern biodiversity, agriculture, animal welfare, and public safety. The institutions related to these sectors specify the rules of the game,² encoding the values, management practices, and scientific knowledge of the time of their establishment. Yet, as a result of its departure from mainstream conservation approaches, rewilding encounters friction with governance institutions. My research used a barrier analysis approach, a method drawn from research on adoption of energy efficiency measures,^{3,4} to identify the tensions between rewilding projects and the regulatory environment in which they operate in the UK and the Netherlands.

The barrier analysis involved two steps: First, identification of a range of barriers and disincentives from a literature survey, 9 site visits, and 18 semi-structured interviews with rewilding practitioners; Second, a survey based on the barriers and disincentives identified in step 1, distributed to all interviewees, in which respondents rated each identified barrier based on the extent to which it hindered his/her work (n=11; multiple respondents from a single site were weighted for equal representation by site).

Information was collected at sites considered representative of rewilding projects in the UK and Netherlands (see list below).

Study Sites

Name	Location	Landowner	Size	Established
Alladale Wilderness Reserve	Scotland	Private	8,000ha	2003
Blaeneinion	Wales	Private	30 ha	2004
Cairngorms National Park	Scotland	Various	450,000ha	2003
Cambrian Wildwood	Wales	Wales Wild Land Foundation	N/A	Organization formed
Dundreggan Estate	Scotland	Trees for Life	4,000ha	2008
Ennerdale	England	Primarily Forestry Commission National Trust, and United Utilities	4,700ha	2002
Knepp Castle Estate	England	Private	1,400ha	Rewilding activities began in 2001
Millingerwaard	Netherlands	Forestry Commission	375ha	Mid-1990s
Oostvaardersplassen	Netherlands	Forestry Commission	6,000ha	1968
	Staatsbosbeheer			