

Can we learn from the UK's guerrilla rewilding movement?

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Abstract Guerrilla rewilding, the unsanctioned release of species into the wild, is a controversial activity criticized by most conservation professionals. In this Forum article we argue that despite this criticism, it has played a significant but underexplored role in the UK's rewilding movement. Using examples including butterfly species, goshawk *Astur gentilis*, wild boar *Sus scrofa*, beaver *Castor fiber* and lynx *Lynx lynx*, we argue that examining these guerrilla rewilding acts provides valuable insights into public preferences for certain species, their perceived acceptability, and the ways in which they shape knowledge and practices of human-wildlife coexistence. However, our analysis also suggests that in some cases guerrilla rewilding can undermine the very species it seeks to restore. Animals released without preparation or monitoring, particularly those habituated to human presence, often lack the ability to survive independently, leading to welfare issues, human-wildlife conflict and wider ecological impacts. Furthermore, by circumventing the social and collaborative dimensions of rewilding, these actions risk deepening divisions among stakeholders, which are critical to ensuring long-term success. Nonetheless, this type of rewilding can also potentially trigger more positive emotions of recovery whilst raising the species' profile. We find that guerrilla rewilding has in some cases influenced formal rewilding practice and the broader discourse in the UK, in stark contrast to the official government position on nature recovery. This paper draws together some key learning points and highlights areas for future research on guerrilla rewilding.

Keywords Covert rewilding, guerrilla rewilding, illegal species reintroduction, nature recovery, policy

Introduction

In January 2025, at least four Eurasian lynx *Lynx lynx* were released into the Scottish Highlands. Although all four were caught within 48 hours of detection, unfortunately one died shortly after recapture (RZSS, 2025). These

events have been reported as a poorly thought through, unregulated release by an owner who could no longer care for the animals (RZSS, 2025). They are arguably the most extreme example in a series of unlawful reintroductions in the UK (Timmins, 2023). Other notable examples include suspected illegal releases of wild boar *Sus scrofa* in both the Cairngorms and Dartmoor, and it is likely that additional incidents will follow. Although these actions have been widely criticized by conservationists (RZSS, 2025; Scotland: The Big Picture, 2025; Sutherland et al., 2025), this Forum article explores what can be learnt from these events.

Eurasian lynx are nocturnal or crepuscular stealth predators that live solitarily as adults (Koehler & Aubry, 1994). These animals once played a crucial role in British ecology as apex predators (Yalden, 2010) but a considerable amount of time has passed since the lynx became extirpated across most of Britain during the late Middle Ages (Hetherington et al., 2006; 2008). Yet now, from an ecological perspective, Scotland is well-suited for the return of the lynx (Overden et al., 2019). Studies suggest that parts of Scotland and England have sufficient prey, habitat and space to support 256–400 individuals (Hetherington et al., 2008; Johnson & Greenwood, 2020), exceeding the IUCN's threshold of 250 for a viable population (von Arx, 2025). Furthermore, YouGov polls indicate public support for the return of the lynx, with many seeing it as a step towards restoring natural processes and enhancing biodiversity (YouGov, 2020). Several organizations in Scotland and England are working towards legal reintroductions rooted in detailed ecological studies and community consultation (e.g. Bavin et al., 2023). However, their unauthorized release undermines these efforts.

Conservationists have argued that the unplanned release in January 2025 caused harm not only to these individuals but also to the broader vision of restoring the lynx (and other species) to Scotland in a sustainable, socially accepted manner (Scotland: The Big Picture, 2025). Whilst, at the time of writing, the full circumstances are still being investigated, early evidence suggests the lynx appeared habituated to human presence and probably lacked the necessary hunting and territorial behaviours to thrive in the wild (RZSS, 2025). Although this action falls far short of a planned rewilding attempt, it nevertheless may share some similarities with, or at least echoes of, historical examples of guerrilla rewilding (Thomas 2022a;

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see also covert or rebel rewilding, Timmins, 2023). There is scant definition of guerrilla rewilding, but Thomas (2022a), expanding on Bode's (2021) work, characterizes it as the covert and unauthorized translocation of species, which most often occurs when permission for rewilding activities is denied. As an island nation, the UK, in contrast to continental Europe (Cimatti et al., 2021), is less able to rely on natural range expansion of recovering wildlife populations to replenish impoverished ecosystems. Formal reintroduction processes are, however, seen as being incredibly slow, potentially leading some to take illegal action to expedite nature recovery (Thomas, 2022a).

Here, we argue that unsanctioned releases of native species are an important yet underexplored and under-conceptualized part of the UK's rewilding history. Whilst we acknowledge that these forms of guerrilla rewilding cannot be condoned, they have altered the discourse and practice of rewilding in the UK (Thomas, 2022a). They provide an important opportunity for conservation and rewilding practitioners to re-examine the approaches that underpin existing species reintroduction projects, which are central to much nature recovery and rewilding ambition in the UK. Whilst rewilding has many interpretations, here we view it as a process of restoring self-sustaining, complex ecosystems by re-establishing interlinked ecological processes and reducing human control (Perino et al., 2019).

Species case studies

The UK has a long history of non-native species introductions (Manchester & Bullock, 2000; Lever, 2010). These have occurred for different reasons, including aesthetics, hunting, scientific study and animal rights activism aimed at freeing captive animals (Manchester & Bullock, 2000; Lever, 2010). Notable examples include Reeves' muntjac deer *Muntiacus reevesi* introduced by the Duke of Bedford for their ornamental appeal and game (Chapman et al., 1994), grey squirrels *Sciurus carolinensis* released for ornamentation (Lever, 2010) and American mink *Neogale vison* escaped or released from fur farms (Manchester & Bullock, 2000). Although a detailed review of these introductions is beyond the scope of this article, such actions reflect a long-standing tradition of human-driven species introductions.

Here we examine several native species reintroductions that have been the focus of guerrilla rewilding in the UK. In doing so, we bring together existing evidence in an area that is challenging to research because of its covert nature (Bode, 2021; Thomas, 2022a).

Eurasian goshawk *Astur gentilis*

The goshawk *Astur gentilis* used to be widespread throughout the UK but ceased to breed in Britain in the 1880s and became the first raptor to be persecuted to

extinction (Newton 1979). Its decline probably began much earlier, driven by extensive deforestation (Newton, 1972). However, in recent decades goshawks have reappeared in the UK, with a mean of 712 breeding pairs reported for the 5-year period 2015–2019 (Eaton et al., 2021). This recovery, in part, has been attributed to unregulated releases by falconers in the 20th century, both intentional and accidental (Marquiss & Newton, 1982). During the late 1960s and 1970s, large numbers of goshawks were imported into Britain, and breeding became regular (Petty, 1996). There have been no official goshawk reintroduction programmes in the UK and there is no evidence to suggest that natural range expansion was the reason for the population increase in the 1960s (Petty, 1996).

Many of the birds originated from a mix of subspecies from Poland, Germany, Finland and potentially North America (Cramp & Simmons, 1980; Marquiss, 1981). The UK population's recovery took place at a time when many aspects of goshawk ecology were poorly understood. This lack of knowledge placed decision-makers in the challenging position of having to make critical management decisions with limited information. Twenty years after their reappearance, goshawks were protected under the UK Wildlife and Countryside Act 1981. Legal protection has aided their recovery, although challenges like habitat loss and illegal persecution remain, showing the return has not been without conflict (Newton, 2020). However, goshawks are once again part of the UK countryside and culture (Macdonald, 2014), with little controversy amongst the wider public, despite their population apparently being built on clandestine releases.

Wild boar *Sus scrofa*

Wild boar were once common across the UK but habitat loss, fragmentation and overhunting led to their extinction in the 13th century (Yalden 1986). The current UK boar population originates from captive animals that escaped or were illegally released (Baker, 1990; Goulding, 2013). For example, in 1987 a severe storm damaged the fences at a wild boar farm in southern England, allowing the animals to escape and establish a new population in the local area (Jackson, 2021). Following a rise in wild boar farming in the 1980s, both escapes and intentional releases led to breeding populations in Kent, Sussex, Devon and parts of Scotland (Lyons, 2024). By 2018, an estimated 2,600 animals lived in the wild, with the largest stronghold in the Forest of Dean, Gloucestershire (Gill & Waeber, 2018). However, most wild boar populations were subsequently culled to extirpation in England, except for the Forest of Dean where regular culling occurs but a population persists (Lyons, 2024), and there are still occasional sightings elsewhere in the country including Kent and East Sussex. There are however, several sizeable populations in Scotland, especially in Dumfries and

Galloway and Lochaber. It seems likely that there is a component of domestic pig genes within these animals, leading to them being officially referred to as 'feral pigs'.

Most recently, in February 2025, a small herd of wild boar spotted in the Cairngorms National Park, near Kingussie in Scotland, were suspected to be illegal releases and were captured and culled by Forestry and Land Scotland. In the same month in Dartmoor, media outlets reported aggressive encounters between wild boar and dog walkers (Horton, 2025a), which again were blamed on illegal releases by rewilding proponents. These incidents have prompted investigations by the Dartmoor National Park Authority and the Devon Wildlife Trust, although claims that the boar have been removed remain unconfirmed.

One major concern that has led to widespread culling has been propounded by the farming media representing the British pork industry, who have described wild boar as the 'biggest risk' to pig farmers because of possible transmission of African swine fever to domestic pigs (James, 2024). However, academic research and farm standard organizations emphasize that the primary risk actually derives from infected pork products imported for human consumption (Costard et al., 2009; Houston, 2024). This scapegoating of wild boar as carriers of African swine fever has arguably been exacerbated by unofficial releases (DEFRA, 2024). Additionally, the reintroduction and management of wild boar are restricted by legislation, particularly the Dangerous Wild Animals Act 1976. As such, wild boar are not considered a viable option for rewilding schemes, with surrogate species used instead such as the Tamworth pig, a rare breed of the domestic pig *Sus domesticus*.

Importantly, the illegal releases of wild boar in the Forest of Dean have led to the animals establishing highly autonomous populations, which in turn has sparked both enthusiasm and controversy amongst local people (O'Mahony, 2020; 2022), while elevating the species' profile in UK conservation and popular rewilding discourse (e.g. Lyons, 2024). Some regard boar as problematic because of crop damage, disease risk and human-wildlife conflicts (O'Mahony, 2020), whereas others consider them ecosystem engineers because of their rooting and disturbance behaviours, which promote seed dispersal and enhance plant biodiversity and soil health (Heinken et al., 2006). Their return to the Forest of Dean has thus created moral, ethical and political dilemmas regarding their management (O'Mahony, 2020).

Butterflies (Rhopalocera)

Illegal releases of butterflies that have been extirpated in the UK have raised significant concerns among conservationists because of the potential ecological risks and legal implications (Butterfly Conservation, 2022; Barkham, 2023).

Notable examples include the large copper *Lycaena dispar*, extinct in Britain for over 150 years (Andrews, 2015), and the black-veined white *Aporia crataegi*, thought to have gone extinct in the UK in the 1920s (Thomas et al., 2024). Illicit releases were common throughout the 20th century, with Sir Winston Churchill openly reporting attempts to re-establish black-veined whites near his home (Oates, 2015). Although now more furtive, wildlife enthusiasts are thought to buy butterfly eggs online, raise the butterflies up to adults and then release them (Barkham, 2023).

According to reports in the media, these releases are often motivated by aesthetic appreciation. Commentators also argue that the releases are driven by knowledge of a changing climate making the UK increasingly conducive to species previously restricted to warmer countries (Barkham, 2023). Alternatively, some guerrilla rewilders may be driven by the prestige associated with supposedly rediscovering a species or capturing rare photographs. Conservation organizations argue that there is a disease risk from unregulated introductions, particularly when eggs or larvae are imported from unscreened sources (Butterfly Conservation, 2022). This could have catastrophic consequences for native butterfly populations already under pressure from habitat loss and climate change. For instance, the large copper's British subspecies *Lycaena dispar* ssp. *batavus* was univoltine (only one generation of offspring, or brood, annually) whereas the reintroduced populations are often bivoltine (two broods annually), leading to potential competition with native species and disruption of ecological dynamics (Pullin et al., 1995). Furthermore, the provenance of the released individuals is often unclear, raising concerns about the ethics of egg collection and the impacts on the populations from which they originate.

Conservation organizations have argued that these acts of guerrilla rewilding are also harmful to the individual organisms involved and are rarely successful as a consequence of inadequate preparation and limited ecological knowledge (Thomas & Lewington, 2010). However, some cases are thought to have resulted in reportedly stable populations, such as the release of the Glanville fritillary *Melitaea cinxia* in London (Barkham, 2023).

Beaver *Castor fiber*

Once widespread but hunted to extinction for fur, meat and castoreum, Eurasian beavers *Castor fiber* were last recorded in Scotland in the 16th century (MacDonald et al., 1995; Yalden, 2010). In recent decades there have been a series of reintroductions in Britain, with illegal releases occurring before official trials.

The rewilding of beavers in Scotland highlights two contrasting approaches (Ward & Prior, 2020): the Knapdale beavers, reintroduced under a licensed programme, and the Tayside beavers released illegally, without a licence

(Ward & Prior, 2020). Arguably, the Tayside populations operated with a different form of autonomy, in a well-connected landscape their populations increased and the impact on surrounding agricultural land created high levels of human–wildlife conflicts (Thomas, 2022a). Ultimately, they were subjected to culling as a result of their so-called outlaw status, challenging their right to exist (Holmes et al., 2024). The continuing presence of some Tayside beavers remains socially and politically controversial, as demonstrated by ongoing media coverage, persecution and destruction of beaver dams (Holmes et al., 2024). Despite these conflicts, the illegal beavers attracted significant public attention. As interest in their presence increased, local groups took action to secure recognition of the beaver as a native species, thereby advocating for its protection (Ward & Prior, 2020; Thomas, 2022a). Furthermore, the unregulated reintroduction of beavers in areas like Tayside has contributed to habitat restoration, increased biodiversity and the revival of wetland ecosystems (Gaywood, 2018). The rewilding of beavers in Scotland culminated in their official protection in 2019, and policies are in place that establish future management frameworks. Permission was granted for an unenclosed release on the upper River Spey catchment (NatureScot, 2023). These releases began in 2023 and involved family groups trapped and translocated from areas where they are having a negative impact on agricultural land and successful breeding has been recorded. Individuals originating from covert releases are now the main source of legal releases elsewhere in Britain (Thomas, 2022a), avoiding the need for expensive and risky translocation of individuals from overseas.

In England, a population of beavers was illegally released on the River Otter in Devon in the early 2000s (Thomas, 2022a; Holmes et al., 2024). Since then, more than 30 fenced separate enclosures have been established across the country as part of licensed 5-year reintroduction trials during which changes to biodiversity, ecosystem function and ecosystem services are monitored and the impact of beavers on the landscape assessed (e.g. Cooper et al., 2025). However, conservationists warn that these captive populations may soon outgrow their enclosures, leading to territorial conflicts and welfare concerns (Barkham, 2024). In 2025, wild (unenclosed) releases of beavers in England were finally approved, 25 years after the first illegal population was discovered (DEFRA, 2025).

Ecological and social implications of guerrilla rewilding

Guerrilla rewilding contravenes a wealth of legislation such as the UK Wildlife and Countryside Act 1981, which requires licences for reintroductions, as well as other laws

regulating biosecurity, health and safety. Unlicensed reintroductions also bypass protocols that provide safety and ethics guidelines, focusing on aspects like ecological suitability, genetic diversity and long-term viability (IUCN, 2013). We explore the ecological and social consequences of this, arguing that these cases offer valuable insights into how success is defined in sanctioned rewilding projects.

Does guerrilla rewilding provide any useful lessons for the ecology of rewilding?

In our case studies, we have discussed how species that are reintroduced outside of formal frameworks can develop self-sustaining populations and fulfil key ecological roles. In some cases, these species have gained formal protection following their illegal return. Arguably the lack of formal planning and regulation for beaver and goshawk has granted them a different type of autonomy compared to the carefully regulated and monitored populations in controlled trial releases of other animals (Ward, 2019; Ward & Prior, 2020). It has also allowed these unregulated animals to return without any prerequisite that they achieve pre-defined outcomes such as the delivery of specific ecosystem services. There is a risk that framing animals as agents who deliver specific benefits for humans undermines their intrinsic importance and runs counter to the open-ended and process-led characteristics of rewilding (Genes et al., 2019). There is also an inherent tension with well-established guidelines that stipulate that reintroduction should only be considered if the factors that led to the species' original extinction or extirpation are no longer in place (IUCN, 2013).

However, the relationship between animal autonomy and rewilding is complex and increasingly the focus of academic debate (von Essen & Allen, 2015; Ward, 2019; Thomas, 2022b). There is growing recognition that rewilding does not necessitate the total withdrawal of human involvement; rather, forms of care and stewardship during reintroduction can support animals in gradually gaining autonomy and the capacity to shape their own ecological roles (DeSilvey & Bartolini, 2019), leading to mutualistic relationships between humans and non-humans (Tanasescu, 2017a; Glentworth et al., 2024a). The concepts of dominion, stewardship and partnership (e.g. Manfredo et al., 2016; Castelló & Santiago-Ávila, 2022) are useful in articulating how human–non-human relationships may evolve, from initial control, through phases of support, towards more equal forms of coexistence (DeSilvey & Bartolini, 2019). In contrast, abrupt illegal releases that fail to consider the needs of the animals in adapting to wild environments are less likely to foster such transitions or support autonomy, as in the recent release of lynx in Scotland.

The concept of so-called novel ecologies is a key aspect of the rewilding discourse (Klop-Toker et al., 2020). One dimension of this concerns the genetic implications of guerrilla rewilding, specifically that the genome of an introduced population will differ significantly from its historical counterpart as a direct consequence of human interference. For example, the UK's goshawk population includes genetically diverse races, with larger, paler North American birds intermingling with their smaller, browner European counterparts (Taylor, 2011). This genetic diversity may enhance adaptability in some cases but it also complicates genetic baselines. Similarly, controversy surrounded the Tayside beavers, which Scottish Natural Heritage judged to be a different subspecies to the beavers previously resident in Scotland, raising questions about the significance of indigenous genetics in rewilding efforts and the balance between ecological function and provenance (Taylor, 2011). Certainly, the licensed programme of beaver reintroductions across Britain is carefully monitoring the DNA profile of individuals to ensure genetic diversity, which may be significantly undermined by illegal releases, risking inbreeding and other issues such as disease (Campbell-Palmer et al., 2020). The creation of novel ecologies raises questions around the notion of a species belonging to a particular place, from both social and ecological perspectives, as demonstrated by the reintroduction of the European white stork *Ciconia ciconia* at the Knepp Wildland project in West Sussex, England. It is widely accepted that the storks' presence provides socio-cultural and economic benefits, such as improved people–nature connections; nevertheless from an ecological standpoint, questions around authenticity and belonging persist, largely because of disagreements about the species' formerly native status (White et al., 2023). Whilst the literature on rewilding is mixed, some argue that the novel baselines arising from reintroductions, position rewilding as future-orientated and are a key guiding factor (Jepson et al., 2018; Klop-Toker et al., 2020); however, emerging global guidelines for regulated rewilding still emphasize native baselines (Carver et al., 2021).

The ecological risks of guerrilla rewilding are significant, often undermining the very species such actions aim to advance. Unregulated releases, such as the illegal introduction of the large copper and black-veined white butterfly, for instance, could disrupt local ecosystems through disease transmission, genetic incompatibility and behavioural mismatches. Others have claimed that these reintroductions can obscure natural changes, masking opportunities to monitor changing populations (Barkham, 2023). In addition, a lack of documentation regarding how many organisms have been reintroduced makes it challenging to understand the natural processes that are occurring.

Does guerrilla rewilding provide any useful lessons for public acceptability and wider stakeholder engagement?

Amidst a discourse of ecological and climate emergencies and increasing ecoanxiety (Søgaard Jørgensen et al., 2024), for some the drive to take decisive ecological action is strong and this resonates with the actions of guerrilla rewilding. Research suggests rewilding can be a response to feelings of sadness, anger, guilt and a sense of loss provoked by environmental concerns (Wynne-Jones, 2022) but can also trigger anxiety and fear of the unknown (Jørgensen, 2019), not least in instances where consent or consultation is lacking (Glentworth et al., 2024a). In most examples, illegal reintroductions have garnered both support and criticism but it appears that perceptions, or at least media coverage, are species-specific, with more charismatic species gaining much more attention (Lorimer, 2007). In some cases, neither members of the public nor professional ecologists are aware that these releases have occurred before the organisms have begun to repopulate areas from which they had been extirpated (Bode, 2021). Research indicates that the positions stakeholders take regarding reintroduced species are rooted in wider values and identities, including notions of proper land custodianship (Holmes et al., 2024) linked to equity, tradition, private property rights and power (Patterson et al., 2003), or moral values associated with care for nature (Wartmann & Lorimer, 2024). Such divergent values are not easily reconciled. Species-specific concerns relating to lynx include animal welfare, tourism and livestock predation (Bavin et al., 2023), whereas aesthetic considerations and flood risk concerns are frequently cited in the case of beavers (Ulicsni et al., 2020; Auster et al., 2022; Hohm et al., 2024). Licensed and well-documented reintroductions of other species have demonstrated that many of these concerns can be addressed through the consultation and consensus building processes that are part of carefully planned reintroductions. Thorough pre-release engagement with stakeholders can help address potential objections and provide a solid foundation for success (Marino et al., 2024). By contrast, illegal and covert reintroductions often exacerbate mistrust between stakeholders, particularly when they lack transparency or consultation, as evidenced by tensions surrounding unlicensed lynx and beaver releases (Hohm et al., 2024).

Poorly planned releases also increase the likelihood of animals behaving unnaturally, potentially reinforcing fears and misunderstanding amongst the public. For instance, the lynx released in Scotland were seen close to people because they had been captive-bred and were probably raised in close proximity to humans. Such interactions can distort public perceptions and provoke undue concern by creating the impression that encounters are more frequent than they would be with truly wild lynx, which are shy,

elusive and rarely observed (Filla et al., 2017). Furthermore, media portrayal of illegal releases influences public acceptance. For example, media reports in February 2025 describing an alleged wild boar attack on a horse rider on Dartmoor, during which the rider was thrown from the horse (Shaw, 2025), were designed to evoke an emotional response in the readership. Such exaggerated and emotionally charged reporting can lead to negative framings of wildlife, a trend regularly observed in media coverage of human–wildlife conflicts (Dayer et al., 2017; Stafford et al., 2018). Animals are frequently described as being dumped or discarded (e.g. McKenzie, 2025), which may be accurate in some cases but could also oversimplify or understate the true intentions of those responsible for releasing them.

Nonetheless, media portrayals and public perceptions of guerrilla reintroductions can serve as case studies for researchers to explore, offering insights into societal preferences, levels of tolerance and attitudes to coexistence that will differ from reactions to tightly controlled, officially sanctioned projects. This is because, rather than society being actively engaged in the decision-making process, with unregulated releases the general public are confronted with the species and must react accordingly.

Discussion

Motivations for guerrilla rewilding

Guerrilla rewilding adopts different approaches for different species, reflecting variable levels of planning and strategy, and suggestive of a range of different motivations. These have been explored for sanctioned reintroductions and rewilding (e.g. Wynne-Jones, 2022; Lanfers, 2023), but less so for guerrilla rewilding (Thomas, 2022a).

We argue that guerrilla rewilding motivations can be framed around the three worldviews of anthropocentrism, biocentrism and ecocentrism (Pascual et al., 2023), along with the selfish motivation of egocentrism, focused on individual benefits (Bordeau, 2004). It should be recognized that motivations and associated emotions are complex and often overlapping and do not align neatly with any individual's worldview, particularly in relation to rewilding (Glentworth et al., 2024a).

Egocentrism Illicit reintroductions stemming from egocentric motivations are performed with only the benefit of the person releasing the species in mind, with no regard for the welfare of the individual animal or species (in essence, discarding the animals). The 2025 release of the four lynx into the Cairngorms has thus far been categorized (by the Royal Zoological Society of Scotland) as carried out by an individual who could no longer care for the animals (RZSS,

2025) and thus released them into the wild. This motivation is likely to result in almost instantaneous failure, because successful reintroductions require careful planning if they are to avoid significant deleterious effects, from an animal welfare perspective as well as ecologically and socially.

Anthropocentrism Illicit reintroductions motivated by anthropocentric views are performed with the intention of benefiting humans more broadly. This may be linked to a commitment to delivering ecosystem services (e.g. reducing flooding), providing direct economic gain (e.g. revenue from nature photography or tourism) or a desire to provide joy through rewilding (Wynne-Jones, 2022). The release of butterflies in the Greater London area may have been driven by anthropocentric motivations: it was almost certainly doomed to fail in the long term but it provided short-lived interest for butterfly enthusiasts. The sanctioned release of beavers in England, prescribed through careful licensing by Natural England and where success is measured by the extent of ecosystem services provided by the animals, provides substantial precedents for anthropocentric motivation for rewilding.

Biocentrism Illicit reintroductions driven by biocentric motivations focus on providing an opportunity for the development of a thriving and self-sustaining population of the target species. Perhaps the most obvious motivation for reintroductions is the desire to see the return of the released species to the wild (Soulé & Noss, 1998). It seems likely that the unsanctioned releases of goshawks, which ultimately were successful in reestablishing the populations, were motivated in this way. This may be coupled with broader sociological trends where the guerrilla rewilders recognized that the threats that led to the species' persecution, notably rearing of gamebirds in woodland, may have subsided but that their spontaneous return (e.g. from continental populations) would be unlikely.

Ecocentrism Illicit reintroductions based on ecocentric motivations build not only on a desire to see a thriving population of the released species, but a broader aim to increase non-human autonomy and the reestablishment of self-regulating natural processes. This includes benefits for other species in the ecosystem (including people) but also processes affecting abiotic elements. Often viewed in the academic literature (Carver et al., 2021) as a driving force behind the broader rewilding movement and almost certainly a driver for non-sanctioned releases, this is the desire to restore natural components and processes, lost because of humanity's destructive interventions. Certainly, some of the unsanctioned, intentional releases of wild boar and beavers in England have retrospectively (and perhaps

romantically) been allied to this motivation (Thomas, 2022a; Lyons, 2024). The high levels of ecosystem engineering and/or disturbance provided by the beaver and wild boar have been linked to many ecological benefits. In areas where they have been released, both species have challenged citizens to reconsider their relationship with disruption and perceived untidiness in the landscape, perhaps more than any other species currently resident (either sanctioned or unsanctioned) in the UK.

Media coverage of guerrilla rewilding events often tries to portray (perhaps inaccurately) the motivations behind these events (Barkham, 2023), and this may in turn influence public reactions. Furthermore, these four motivations may also shed some light on the positive and negative responses to public consultations about sanctioned releases. Planned releases that recognize and accommodate different worldviews may ultimately be perceived more positively by a greater number of people.

Balancing caution with action

We have shown that, regardless of the motivations, species are often illegally released without considering the ecological, social or logistical impacts. This can have negative consequences on the organisms in question, and also on the wider social and ecological systems at the release site. The science of species reintroduction has been evolving for decades, and this experience should be used to guide reintroductions to ensure that they are effective (IUCN, 2013).

Delays in official reintroductions, as a result of bureaucracy and debate, can hinder progress. The UK's Department for Environment, Food & Rural Affairs (DEFRA) has stated that 'the reintroduction of species is not a priority for the government' (Parliamentary Committees, 2023) despite species reintroduction appearing as a core aspiration within the government's 25-year plan (HM Government, 2018). These excessive delays and contradictory political messages (Horton, 2025b) risk missing biodiversity opportunities and offer agency to guerrilla activists. For instance, the reintroduction of Eurasian beavers in England faced decades of debate, while illegal releases hastened their spread. Sanctioned projects have occurred across Europe for over a century (Jørgensen, 2019), while England and Wales still conduct trials to assess ecological impacts and only recently supported open releases. When official projects stall, illegal releases can emerge as a form of protest. Such releases challenge neoliberal order, drawing parallels with the guerrilla gardening movement (Millie, 2023). This highlights the need for timely, legal and participatory experimentation, balancing caution with action to avoid frustration and unregulated releases.

Experimentation and innovation in nature recovery

Although unregulated reintroductions pose significant risks, they also highlight the need for innovation and experimentation in conservation. We have shown how these guerrilla rewilding projects embrace some of the more controversial elements of the rewilding discourse including greater autonomy for released species (Prior & Ward, 2016), promoting open-ended processes (Jepson et al., 2018) and enabling novel ecologies (Klop-Toker et al., 2020), which are at the forefront of debates around UK nature recovery (Dempsey, 2021). Traditional approaches are often hindered by bureaucracy and limited funding, and creative initiatives are needed to tackle the biodiversity crisis (Jepson, 2022).

Some argue that environmental policy should make space for rewilding through the development of Nature Innovation Areas (Sandom et al., 2019; Clement, 2021; Jepson, 2022). In these contexts, rewilding is regarded as a living laboratory in which to design new policy instruments that encourage bottom-up innovation that can, in turn, influence top-down policy changes. Nature Innovation Areas acknowledge the urgency of the biodiversity crisis (Glentworth et al., 2024b) while ensuring that experimentation occurs within a framework that prioritizes ecological, social and ethical considerations. Arguably this approach of adapting, responding and retrofitting ideas to other contexts has become a central characteristic of the rewilding movement across Europe (Jepson et al., 2018; Pellis et al., 2016; Root Bernstein et al., 2018). This follows on from Lorimer (2015) who frames rewilding as a form of ecological experimentation: an adaptive, open-ended process that embraces uncertainty and fosters novel relationships between species and landscapes. Building on this, Tanasescu (2017b) and Jepson (2016) argue that such experimentation is not isolated from society, but deeply embedded within the cultural, political and economic contexts in which it takes place. People are not external observers but active participants, shaping rewilding through their practices and values. Rather than being confined to laboratories, ecology in such contexts is studied and enacted within real-world settings (Lorimer 2015), where legislation is often relaxed to allow for more flexible interventions (Jepson, 2022). Importantly, these rewilding experiments can be guided by democratic processes, enabling collective and co-produced visions of how human–nature relationships might unfold in shared landscapes (Glentworth et al., 2024a). Formalizing these spaces, where legislation and policy is relaxed, could be a way to develop bolder approaches to species reintroduction that could address the gap between caution and rashness. This would require collaboration between scientists, policy-makers and communities, and would encourage public engagement to build understanding and support for

rewilding efforts, alongside agreement of what success looks like. In a UK policy context that is risk averse, and where acceptable evidence is narrowly defined (Exley, 2021), such experimentation is limited. As exemplified by the beavers enclosed at the Knepp Wildland project in West Sussex, even at the UK's pioneering wilding project the extent of experimentation seen by policymakers as acceptable is constrained by the overriding focus on avoiding failure (Root-Bernstein et al., 2018). Whilst open releases are now granted in England, there remain significant legislative restrictions on nature recovery even on these flagship sites (Jepson, 2022).

Concluding remarks

In this paper we explore the topic of guerrilla rewilding in the UK through a series of case studies, highlighting some successes and failures. In the context of a growing number of reintroductions that are generating increased publicity, we argue that we should learn from these experiences, both ecologically and socially. We highlight shortfalls in officially sanctioned species-led rewilding, and the importance of fostering inclusive, scientifically grounded approaches to ensure benefits are realized without compromising stakeholder trust or species welfare. Ultimately, rewilding has broadened the ecological imagination of nature conservation practitioners by redefining baselines, embracing novel ecosystems and positioning species reintroduction as a tool for restoring ecological function. This shift has propelled rewilding into public discourse as both a scientific and cultural endeavour. In contrast, guerrilla rewilding represents a more radical, activist response that is committed to ecological repair but often bypasses the democratic processes that shape formally sanctioned projects. As such, it raises critical questions about legitimacy, accountability and whose visions of nature should prevail in shared landscapes. We suggest further research on the societal aspects of these releases and call for more experimentation within the legislative landscape of UK nature conservation.

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