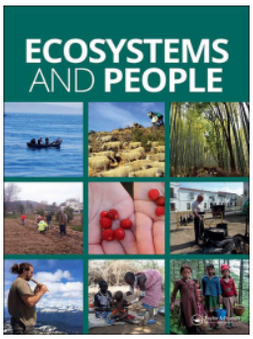
Taylor & Francis
Taylor & Francis Group



Ecosystems and People

ISSN: 2639-5916 (Online) Journal homepage: www.tandfonline.com/journals/tbsm22

Social aspects of species reintroduction: the case of BOOM

Peter Brewitt

To cite this article: Peter Brewitt (2025) Social aspects of species reintroduction: the case of BOOM, Ecosystems and People, 21:1, 2513892, DOI: 10.1080/26395916.2025.2513892

To link to this article: https://doi.org/10.1080/26395916.2025.2513892

ECOSYSTEMS AND PEOPLE
2025, VOL. 21, NO. 1, 2513892
https://doi.org/10.1080/26395916.2025.2513892

Taylor & Francis
Taylor & Francis Group

RESEARCH

Social aspects of species reintroduction: the case of BOOM

Peter Brewitt [a,b]

[a]Environmental Studies, Wofford College, Spartanburg, SC, USA; [b]Institute of Science and Environment, University of Cumbria, Ambleside, UK

ABSTRACT

Reintroducing threatened species is a dynamic ecological restoration approach, but it faces socio-political challenges. Social aspects of species reintroductions are not adequately addressed by practitioners or scholars. Using the Narrative Policy Framework, I analyze the case of a translocation program that did emphasize socio-political engagement. Back on Our Map (BOOM) sought to reintroduce or reinforce ten locally endangered species in Cumbria, UK. While BOOM operated in an ecologically and socially fragmented setting, its many partners shared a common narrative of rapid ecological decline and human disconnection from nature. This created a socio-political dynamic that supported BOOM and its partners for both its ecological contribution and for facilitating community engagement with nature. BOOM's approach avoided socio-political barriers, but its work was limited by landscape fragmentation and short-term funding.

KEY POLICY HIGHLIGHTS

- Species reintroduction fits diverse stakeholders' socio-political narratives and facilitates coalition-building.
- Careful species selection can raise political support and public engagement.
- Reintroduction projects should emphasize landscape connectivity and long-term sustainability beyond funding timelines.

ARTICLE HISTORY
Received 2 September 2024
Accepted 22 May 2025

EDITED BY
Amrita Neelakantan

KEYWORDS
Cumbria; ecological restoration; narrative policy framework; reintroduction; translocation

Introduction

Ecological restoration and species reintroduction

Declining biodiversity is a global environmental challenge. Many regions have lost an array of formerly common species (Ceballos et al. 2017; Carlson et al. 2023), altering ecosystem functions as well as human interactions with nature. Translocation, particularly the reintroduction of lost or dwindling species, is a key option for ecological restoration, allowing species to recolonize historic habitats and landscapes to regain ecological function (Seddon 2010; Jørgensen 2011; Polak and Saltz 2011; Bradley et al. 2022). Species reintroduction has grown rapidly since the 1990s (Seddon et al. 2007), but it faces many challenges.

Translocation must be understood as a social process. Marino et al. (2024) and Dando et al. (2023) identify socio-political problems as important challenges in their reviews of translocation research. Species reintroduction may clash with the values that caused ecological degradation in the first place, prompting political opposition that can stop or undo reintroduction (Serenari and Peterson 2016; Brewitt 2019; Gow 2020; Bavin et al. 2023). In addition, conflict within the conservation community may challenge restoration goals (Redpath et al. 2015; Brewitt 2019). While restoration projects that incorporate human objectives enjoy better ecological success (Pettorelli et al. 2019; Serota et al. 2023), most translocations do not adequately include social dimensions (Coz et al. 2020; Klein and Arts 2022; Dando et al. 2023; Serota et al. 2023; Marino et al. 2024). Scholars have called for more socio-political species translocation research (Brichieri-Colombi and Moehrenschlager 2016; Pettorelli et al. 2018; Neilson 2021; Dando et al. 2023; Marino et al. 2024).

Reintroductions can also be challenged by their target species, centering those species as entities on which political actors can focus, as opposed to more abiotic restoration programs like erosion control. Such programs have often focused on individual vertebrate species, particularly mammals and birds (Brichieri-Colombi and Moehrenschlager 2016; Dando et al. 2023; Serota et al. 2023). Public engagement and political salience have been highest when target species are well-known (Serota et al. 2023), but such species can bring controversy. While some restored species may inspire community support, others, particularly predators, can be politically problematic (Nie 2003; Arts et al. 2012, 2016; Sandom

CONTACT Peter Brewitt peter.brewitt@uvm.edu
Supplemental data for this article can be accessed online at https://doi.org/10.1080/26395916.2025.2513892

et al. 2019; Gow 2020; Glikman et al. 2022; Klein and Arts 2022; Marino et al. 2023). This puts a premium on restoration programs' species selection, stakeholder dynamics, and social engagement.

Stakeholders and policy narratives

In a pluralistic political landscape, stakeholders promote their interests within the constraints of their resources and the systems in which they move (Schattschneider 1960). Stakeholder dynamics have been influentially modeled by Sabatier, Jenkins-Smith, and Weible, who see advocacy coalitions forming around policy beliefs (Sabatier and Jenkins-Smith 1993; Weible et al. 2011). Advocates' success depends on the effective expression of these beliefs to influence policymakers, collect resources, attract allies, and implement policy.

People express their political beliefs as stories. This is often a conscious choice, as advocates frame situations for political effect (Schon and Rein 1994; Stone 2002, 2009; Lakoff 2008), and express complex situations in simpler 'storylines' to facilitate political interaction (Hajer 1995). But on a deeper level, humans simply understand politics through narrative. Narratives define the beliefs that drive their political action in the first place. Indeed, some scholars label human beings *Homo narrans*, the storyteller (Niles 1999; Shanahan et al. 2018).

Since its introduction (Jones and McBeth 2010), the Narrative Policy Framework (NPF) has established itself as a unique approach to policy analysis, offering a broadly applicable framework for defining political beliefs and perspectives, and for understanding the expression of these beliefs. As stakeholders define themselves, the problem, and their opponents, and as they choose collaboration or conflict, they do so through narratives. The NPF focuses upon setting, characters, plot, and moral as structural elements of political narratives. Political narratives are particularly relevant in environmental policy (Arts et al. 2012), and the NPF has been widely applied to it at the meso- (policy outcome) level (Bailey et al. 2022; Schlaufer et al. 2022). The NPF is well suited to analyzing ecological restoration politics, which necessarily involve a narrative – degradation results from past actions, restoration comes from new actions and there will be a story arcing from one to the other. As the story proceeds into the future, stakeholders naturally understand themselves as characters. The NPF is also valuable for analyzing voluntary political involvement. In the absence of any coercive political force, stakeholder engagement will depend on motivation, which, again, is felt and expressed in narrative form. Such narratives demonstrate and define political situations' stakeholder dynamics and social engagement.

Methods

Case selection

This paper focuses on the Back on Our Map (BOOM) project, a National Lottery Heritage Fund-supported translocation project in the northwestern English county of Cumbria. England is a particularly important area for ecological restoration – with a Biodiversity Intactness of 47%, it is the seventh-most ecologically degraded country on earth (Royal Society for the Protection of Birds 2021). BOOM reintroduced or reinforced ten locally extinct or rare species and assessed the potential future reintroduction of two others. BOOM's purpose in these reintroductions was as much social as ecological, with most of its goals focused upon human outcomes (UC 2023). It pursued this by collaborating with a wide range of partner organizations (UC 2023). To understand the socio-political elements of the project, I asked:

- How do BOOM partners understand the project, their role, and their goals?
- How do BOOM's socio-political dynamics affect human and ecological goals?

BOOM species

- Aspen (*Populus tremula*)
- Duke of Burgundy Butterfly (*Hamearis lucina)*
- Goldilocks Aster (*Galatella linosyris*)
- Great Sundew (*Drosera anglic)*
- Green-winged Orchid (*Anacamptis morio*)
- Haze Dormouse (*Muscardinus avellanarius*)
- Maidenhair Fern (*Adiantum capillus-veneris*)
- Oblong Sundew (*Drosera intermedia*)
- Small Blue Butterfly (*Cupido minimus*)
- Spiked Speedwell (*Veronica spicata*)

Assessment species

- Corncrake (*Crex crex*)
- Pine Marten (*Martes martes*)

Data collection

I began by tracking BOOM's development through process-tracing (George and Bennet 2005; Collier 2011), establishing its progression from idea to active restoration program. I perused BOOM's website (UC 2023), and read documents and articles connected to its development phase. Project staff gave me access to their records at the University of Cumbria (UC). I found relevant news articles by searching 'back on our map' in the UC library and Visit Cumbria's news site (Visit Cumbria 2023). I also engaged in participant observation, joining BOOM staff and partners at field sites and observing stakeholder activities and attitudes.

Having traced BOOM's process, I assembled an interview guide (Appendix A). I began by contacting steering group members listed on the BOOM website. I asked BOOM staff to identify active partner organizations, as some listed partners had become inactive after the COVID-19 pandemic. I interviewed those organizations' representatives and added other respondents through purposive snowball sampling (Coleman 1958). I ultimately performed 32 interviews incorporating 41 people from partner organizations that had been active in planning or implementing BOOM (Appendix B). Interviews took place between January and June 2023. All respondents gave informed consent to be interviewed. I reached data saturation when I had reached out to all steering group members and active BOOM partners.

The NPF has been used in qualitative, quantitative, and mixed scholarship. As BOOM is a recent case with a small written corpus and diverse group of actors, I used a qualitative approach. To elicit stakeholders' narratives, interviews focused on their organizations' missions, the issues those missions sought to address, their activities in BOOM, BOOM's role in their missions, and their assessment of the program's effectiveness. Interviews were semi-structured, working from an interview guide but pursuing varied topics and issues that emerged as important to each respondent in order to best characterize BOOM partners' roles and perspectives. I analyzed documents and interview transcripts with an NPF-based grounded theory approach.

My codebook (Appendix C) initially included the primary NPF elements of actors' stories – setting, characters, plot, and moral. I used these as form nodes, structuring respondents' narratives. As I coded for form nodes, I recorded subjects that defined and directed respondents' sense of setting, characters, plot, and moral. After identifying some that were specific to only a few respondents and some that were subcategories of broader topics, I consolidated these subjects into 20 themes, completing my codebook. In my second round of coding, I used these themes as content nodes.

I recorded interviews in Voice Memos on an iPhone 14 and transcribed them with app.notta.ai. I finalized transcription after auditory review and analyzed data on NVIVO 12 for Mac. Research was approved by Wofford College Institutional Review Board, protocol 2023–01–08–1.

Results

BOOM's development

BOOM began when a small group of environmentalists, alarmed by the ecological problems crystallized in a report on the state of British nature (Lawton et al. 2010), gathered to brainstorm solutions. These founders concluded that reintroduction, or in some cases reinforcement, would be the best way to restore threatened species in Cumbria. Gaining funding from the National Lottery Heritage Fund, in 2018 the emerging BOOM team held a 'roadshow', exchanging ideas on species and restoration activities with people around the region. Starting with a long list of over 100 species (Yeo 2020), they used public input to identify twelve target species. In the McBeth and Shanahan (2004) sense, the BOOM Team acted as policy marketers, spreading their narrative to gain funding and popular support. The University of Cumbria (UC) took the initial lead on the project; during the process, Morecambe Bay Partnership (MBP), a regional charity, joined UC to co-lead BOOM.

With resources and species set, BOOM and MBP assembled staff to implement the project and a steering group to oversee it. After some disruption from the COVID-19 pandemic, BOOM's primary activity occurred in 2020–2023. BOOM worked with some 50 partner organizations (UC 2023) to provide species, technical expertise, translocation sites, and labor. Partners' roles and activity levels fluctuated over time.

BOOM's setting

Any ecological issue has physical, socio-geographic, and institutional settings. BOOM's physical setting was Cumbria, one of the epicenters of UK environmental politics. Cumbria helps define nature for a mostly urban nation – its Lake District National Park attracted 18 million visitors in 2022 (Lake District National Park Authority 2023). BOOM was active in many sites but focused on South Cumbria, which partners felt was overlooked due to not being in the Lake District.

The large majority of Cumbria is privately owned. This meant that reintroduction had to occur in a setting where target species' historic range is managed according to private actors' interests. BOOM's sprawling physical setting – much of rugged, rural South Cumbria – brought social challenges, as large areas require larger collaborations (Sandom et al. 2019) and are hard to manage. In the future, partners envisioned the physical setting growing beyond Cumbria, hoping that target species might eventually recolonize extended parts of their historic range.

BOOM took place in an evolving institutional setting. The movement to restore English ecology, to build up ecosystem services and natural resources, has extended into the higher reaches of policymaking, and there are policy pathways guiding species translocation. BOOM was enabled by institutional support from the National Lottery, and its

partners included an array of public bodies from the Forestry Commission to HM Prison Haverigg, as well as influential private institutions like the National Trust. At the same time, habitat transformation, particularly through agriculture, has long been publicly subsidized, and has broad institutional and cultural support.

Fragmentation

> …not just thinking of individual reserves in their own right, but look beyond the boundaries, how can we link with these other areas? And there's a lot of really unsuitable farmland or habitat in between that we need to improve and create these corridors or strips or stepping stones, and if we can't do that, physically, with the landscape, well the likes of this BOOM project is sort of the next best thing that artificially links the populations by moving things on. - BOOM habitat partner

All BOOM's settings were fragmented. Socio-geographically, the project was created to work in Cumbria's 'mosaic' of land use and ownership, with islands of protected habitat in a sea of farmed or industrialized landscapes. BOOM chose species that were not readily dispersing across this landscape, from one 'fortress' to another, on their own. Translocation allowed species to 'jump over unfavorable ground', as one founder said, and re-establish themselves in favorable habitat. Part of this was to support biodiversity, which partners saw as important both in and of itself and for improving ecosystem services like carbon sequestration. Ultimately, BOOM's ecological vision was to ensure that more nodes of good habitat, sprinkled across Cumbria, were populated by target species.

The political landscape was also fragmented. Target species and their habitat were affected by many different actors, each with its own resources, priorities, and culture. As one frequent volunteer said, 'there are 14 bodies who deal with wildlife, in an area six by ten, and getting … it's like herding cats if you have a meeting of everybody…' Connecting partners across organizational boundaries while helping species move beyond ecological boundaries was a core BOOM goal.

Sense of place

All elements of setting shaped stakeholders' sense of place – a powerful concept made more potent by the Cumbrian landscape's high public profile. BOOM and its partners focused on consciously re-creating place, and people's sense of it. Many noted that sense of place is formed by ideas of history and heritage, ideas that are strong in Cumbria. But all aspects of setting, they pointed out, were dynamic. Partners noted that part of their challenge was 'shifting baseline syndrome', wherein people viewed present-day conditions – in Cumbria's case, low biodiversity and intensive sheep-centered agriculture – as normal. Part of BOOM's social goal was to build and change people's sense of ecological possibility, to see that, as one founder said, 'that baseline might have been rubbish in the first place', and to expand participants' sense of agency to shape the present and future.

BOOM's characters

All of BOOM's 50+ partner organizations were characters in the narrative. Their roles varied greatly – some worked with BOOM for years, others were only involved with one event. While characters in NPF studies are often cast as heroes or villains (Shanahan et al. 2018), characters in the BOOM narrative were more like players in an ensemble cast, with everyone a little hero in their own role. Villains tended to be impersonal socio-economic forces rather than specific people or groups; the first sentence of BOOM's Vision statement is 'The remaining natural landscapes and wild species in Britain are facing unprecedented and escalating threats from modern agriculture, climate change, urbanization and invasive species' (UC et al. 2018).

Synergy

Often, BOOM's role was to foster collaborative relationships between partners, helping them to combine their resources and expertise and to access one another's corps of volunteers – BOOM staff and partners often emphasized the importance of volunteers. To one habitat partner, a key benefit of BOOM was it 'getting us the army of volunteers that helps us to actually deliver the work in the first place'. Partners applauded one another's ability to complement or strengthen their own organization's resources or expertise, citing access to land, resources, technical expertise, and outreach abilities that helped them better pursue their organizational missions. Barriers to collaboration were often identified as a matter of individuals' attitudes and turf or credit conflicts, as opposed to irreconcilable goals. But such problems were rare – the consensus was that partnerships were positive and synergistic.

While most partners were directly involved in nature and land management, one of BOOM's goals was to connect marginalized Cumbrians to ecological restoration. MBP took a leadership role in BOOM was largely because of its outreach abilities, its 'network of roots right into the community', as one project leader put it. BOOM partnered with a variety of community organizations – a mental health charity, for instance – in the course of its work. Community outreach was part of species selection as well – one founder noted that some 'species which were there very clearly because they were an engagement strategy, and they allowed people to take

some sort of ownership. Not the pre-converted blokes … with a hand lens up to their eye … but actually work with people who are experiencing nature through a different lens. So more of an emotional contact with nature or a therapeutic connection with nature'. These community organizations found that species reintroduction supported their missions, citing exposure to nature, fellowship from fieldwork, and the skills, knowledge, and perspective acquired from BOOM work as benefitting their members. One community partner said 'ecotherapy projects, getting involved with BOOM, it's not just in essence for people to build up their own personal confidence and skills or as part of that journey, that … it's a collective community action, isn't it, that they're bringing other people along with them'.

BOOM partners tended be small organizations, or small units of larger organizations, so work depended on a few individuals. Stakeholders pointed to people's personal qualities as making the difference in creating and sustaining successful partnerships. For one founder, 'I find it's not about contacts, it's not about, necessarily, incentives, it's about relationships, building relationships with people, finding common ground'. Personal qualities were particularly important for BOOM staff, who needed to build and maintain relationships with all the partners for the project to work. As a community and habitat partner put it, 'They're all experts in their field. Really, you know, they're bright and articulate and good at engaging with local people'.

BOOM's plot

> I think what's really frustrating is we're still doing the damage, and we do understand it now, and that's, that's what I think is really frustrating. And, yes, obviously, pressure on society has changed. So, you know, after, after the war, it was all about food production, and the government were paying subsidies to rip out hedgerows and plow up meadows, and the nation needed feeding, and that was serious. So, unfortunately, wildlife in the countryside took a hammering. -BOOM habitat partner

History and agriculture

BOOM's participants felt that agriculture defined Cumbria's physical, cultural and political landscape, and that destructive agricultural practices were Cumbria's biggest ecological problem. Many viewed sheep, the dominant agricultural product, as engines of ecological destruction. While most of England has been farmed for centuries (Rackham 1986), BOOM stakeholders pointed to developments since World War II as really demolishing English nature. Prewar, they felt, Cumbria had supported a fairly stable and biodiverse agro-ecosystem. Afterward, self-sufficiency in food became a national mission, and cultural and institutional incentives combined with modern agricultural technology yielded a simplified sheep-dominated landscape. To one founder, 'much of the current "problem", stems from that post war period of, where farmers were encouraged to increase productivity by whatever way, pulling up hedges, pulling out riparian corridors, using agrochemicals. Particularly in the 60s through to the 70s, there was a big push on productivity'.

With agricultural intensification, familiar wildlife vanished. One habitat partner said, 'I can remember as a child driving home at night and just seeing the cloud of moths and the headlights of the car and it feeling like a snowstorm, and you look now and you see it, there's a moth, and then you wait a minute, there's another. And they were common things, but the common things aren't as common anymore'. The clean windshield phenomenon was noted by several people, symbolizing both the scale and the subtlety of the changes brought by intensive agriculture.

Partners distinguished between intensive agriculture as an institution and farmers as individuals. Farmers, they said, had simply been responding to the incentives and parameters presented to them, doing their best amidst the pressures and rigors of a challenging profession. As one founder put it, ' … so culturally, they want to make their land as productive as possible, because it makes economic sense, but we've also had government policy and incentives to help them to do that'. Some noted that just as agricultural practices and incentives had changed in the 20th century, they might keep changing to support ecological function in the 21st.

Species selection

The selection and translocation of BOOM's species was an important part of the plot. Species selection was guided by public palatability, technical feasibility, species' inability to disperse independently, and, to a lesser extent, ecological role. The 'roadshow' had guided them, as a BOOM founder said, to 'avoid any of the sort of big, controversial stuff because, again, the problem of getting bogged down in public consultation with people who don't want it to happen and lots of shouting'. Target species were, said another founder, 'very easy for people to get on with'.

BOOM's suite of species allowed for widespread public engagement. As one founder noted, 'You can't take an eagle into a school very easily, and get the kids to grow it, whereas an aspen tree, which is something that's missing from bits of this landscape, is something you can take in … (and) get a group of kids to nurture'. BOOM species represented widely appealing taxa like flowers, ferns, and butterflies. At

the same time, BOOM's broad taxonomic approach confused some partners, and partners noted technical and timing challenges to establishing target species in the few years BOOM had.

Public outreach

Partners were concerned about disconnection between society and nature, and the nature-deprived general public was an important character in their narratives. Acting as policy narrators (Hand et al. 2023), BOOM partners shared their narratives with a broader audience in hopes of building up financial, political, and volunteer support. They saw engagement with nature as supporting human well-being. To one habitat partner, 'people are looking for something practical to do for their own well-being, if you like, because they see … it's pretty obvious the jury is not out anymore, that something needs to be done for biodiversity, wildlife, for carbon, for restoring habitats, and all that information is out there'. This connected species reintroduction with community-centered partners, who participated in BOOM because work in nature supported their missions of individual and communal improvement.

BOOM's morals

When BOOM was being developed, the moral of the narrative was straightforward – declining biodiversity, fragmented landscapes, disconnected people, and a growing restoration movement all needed BOOM. As BOOM's second round funding application to the National Lottery said, 'Politically, now is the time … For local people, local nature and sustainability, now is the time' (UC 2018). During BOOM's implementation, morals were more textured and complex.

Engaging species for social engagement

BOOM's species selection was socially effective. Partners reported essentially no opposition to any of the ten target species. In the feasibility study, some stakeholders expressed unease with the pine marten, but more favored it. The consensus was that pine marten reintroduction might be socially feasible soon. And indeed, pine martens were released in Cumbria in late 2024 (Jagger 2024).

Partners noted that BOOM's reintroduction work was a different experience for participants than environmental projects focused on maintenance or cleanup. Volunteers were inspired by the idea and by the act of restoration, the idea of, as one community partner said, 'putting something back into the earth'. Because BOOM's fieldwork was accessible to diverse volunteers and took place in a wide range of locations, it proved to be an easy mechanism for doing outreach and overcoming stakeholder fragmentation. In a narrative sense, participants could start their day as victims, disconnected from nature and its positive effects, but then go work to restore a BOOM species, and in doing so make themselves into heroes, helping save both the environment and society. This dynamic fitted many partners' missions and allowed them to connect and collaborate productively.

Feasible species on a feasible timeline

Ecologically, success depended on technical feasibility. Species acquisition, translocation, management, and monitoring were all challenging at times. BOOM staff and partners had to learn and apply reintroduction techniques for target species. Success was more likely with engaging, nonthreatening species that could be established by inexperienced volunteers in easily accessible sites. To some, the moral was to anticipate and avoid these challenges, though they were hard to predict and varied greatly between species and sites. Species were sometimes difficult to source and tricky to plant or release.

Sustainability was partners' biggest concern. BOOM ran for four years, a span of time too limited to result in self-sustaining populations of reintroduced species. One habitat partner fretted that 'you can't just reintroduce things and walk away', but feared that this was what the lottery funding schedule would compel BOOM to do. Part of BOOM's intent was to create a skilled corps of people who would carry on after the project sunsetted (UC et al. 2018), but some partners worried that progress wouldn't endure without BOOM as an organizing force. To them, one of the morals of the story was that projects like BOOM needed more time. They noted short-term funding as a common problem in ecological projects. Partners also wondered about the recording, storage, and future useability of BOOM's information.

Discussion

BOOM differed from other reintroduction programs by targeting a wide range of socially palatable species and by emphasizing community engagement and social benefits. If replicated, this approach would help address the socio-political challenges such projects face (Arts et al. 2012; Brichieri-Colombi and Moehrenschlager 2016; Klein and Arts 2022; Bavin et al. 2023; Dando et al. 2023). BOOM partners' narratives indicated that a broad approach to partnerships and species was socially effective, and that selecting species for social feasibility elided political opposition. They also indicated that species reintroduction can support a wide variety of organizational goals, connecting disparate partners and ensuring that all relevant parties are engaged and consulted – stakeholders' feeling ignored can be a problem for translocation (Klein and Arts 2022). Shared ecological

and historical narratives helped cement ties between partners. But BOOM's success, particularly its ecological success, was limited by its fragmented physical setting and institutional constraints of funding and time.

Species selection

BOOM progressed with minimal opposition largely because of its careful community-driven species selection. Popular, non-threatening species like dormice make for political 'low-hanging fruit', an alternative to species that may be more charismatic but also more controversial. Ongoing contention over the reintroduction of beavers (*Castor fiber*) (Auster et al. 2020) and lynx (*Lynx lynx*) (Robinson 2024) bear this out. While BOOM's approach of wide-ranging community engagement and diverse partnerships would also be valuable in restoring more controversial species, working with a variety of smaller species facilitated more partnerships and more public participation. In addition, disproportionate conservation attention is focused on large species and predators; reintroducing species that are less charismatic but still have public support can help broaden environmentalists' outlook.

The diversity of BOOM's species guarded against program failure. Green-winged orchids, for example, were more difficult to establish than other species, but as they were only a small part of the program, this was overshadowed by other species' success. However, BOOM's wide array of species confused some partners. A more clearly expressed organizing principle for species selection would be useful for future reintroduction projects. Restoration of native taxa like flowers, ferns, and trees provided ample potential for collaboration and engagement with nature, and future practitioners might select a narrower range – perhaps four flowers and four trees – that afford similar opportunities for collaboration and engagement with nature but are easier for partners and the public to grasp. Reintroductions based on species' role and feasibility are ecologically valuable and publicly popular (Carlson et al. 2023).

Fragmentation

Fragmentation emerges throughout partners' narratives: how to ensure habitat quality and human receptivity in an ecological and social archipelago? A wide-ranging socially focused project like BOOM, with many species and partners, softened more boundaries than a narrowly focused project could have. In areas with little public land and no dominant land manager, such trans-boundary relationships can be important for ecological restoration. Along with potentially expanding species' populations, the legacy of experienced volunteers and stronger professional relationships between organizations can encourage collaboration into the future as more people and groups come to see one another as partners and their landscapes as restorable ecosystems. In the future, such relationships may push restoration further. As one founder said, 'once you've got people used to the idea with the easy stuff, perhaps you can build something a little bit more challenging and complicated, be it ecologically complicated or perceptually more challenging'.

While BOOM was primarily a meso-level political system, individual micro-level interactions constantly shaped the program. The key role of individual attitudes and professional relationships is a central point for restoration practitioners. Open-minded, well-organized, personally engaging individuals formed strong partnerships, undoing social fragmentation and enabling better ecological outcomes. In hiring, practitioners should emphasize interpersonal qualities – it is simpler to improve staff's technical skills or knowledge base than it is to make them friendlier.

Ecological success was challenged by temporal and physical scale. BOOM's focus on islands of suitable habitat managed by its partners resulted in new or strengthened populations of target species but was unlikely to establish consistent gene flow between populations in the few years allotted to the project. BOOM's approach of restoring many species to a wide range of sites may support more dispersal in the longer term, or offer more nuclei from which future restorationists can expand, but this is uncertain. Habitat corridors linking populations would be enormously valuable and should be a long-term goal of restoration practitioners.

Partners were keenly aware that, as one said, 'these grant funded projects, usually have a life expectancy, don't they?' Short-term funding – temporal fragmentation – severely limited the project's possibilities. This is a common problem in ecological management overall and translocations in particular (Borgström et al. 2016; Bubac et al. 2019; Berger-Tal et al. 2020; Lesage et al. 2020). A longer-term approach with less annual funding could be more valuable than more money in a shorter time and create a more hospitable institutional setting for translocation. In the absence of this, reintroduction projects should implement a sustainable maintenance and monitoring system, partly to formalize and structure measurements of success – standards for success are often unclear in translocation (Marino et al. 2023) – but also to support sustainability past funding horizons. While BOOM tried to ensure that partners were able to carry on these

tasks, the project's wide physical and social spread made this uncertain. Irregular or limited monitoring and data have been noted in other translocations (Seddon et al. 2007; Armstrong and Seddon 2008; Taylor et al. 2017; Bradley et al. 2022; Marino et al. 2024). A consistently updated, easily accessible data repository would be ecologically and socially useful.

Changing the narrative

> Lots of folk, and they look at the landscape, and 'it's always been like this, I've always seen it like this'. And then you look at the tractor that, you know, 10,000 times more horsepower than it would have been 20 years ago … The landscape is always changing. We don't see it because it's a subtle, incremental change. - BOOM founder

Ecological restoration in general, and BOOM specifically, seek to add a chapter to the environmental narrative – to both restore and re-story (Nabhan 1991) the Cumbrian landscape. As one organizer said, 'Every generation is expecting a little less from the natural world: a little less diversity, a little less charisma. We would reverse that, and get people to expect a little more from the natural world' (quoted in Yeo 2020). While everyone has a sense of place, shifting baseline syndrome means that it is usually based on their own short-term perspective amidst long-term changes. The unconscious nature of loss challenges environmental advocates. The phenomenon of the empty windshield offers an example – people don't notice insects that aren't there. If they do notice it, they may be glad of a clear windshield; they may not realize that something destructive must have occurred to eliminate billions of insects. Experiences that alter people's sense of place can move them to transform those places.

Ecological restoration advances the plot past degradation and offers a new narrative – a comeback story for nature, with humanity turned from villain to hero. This is part of a broader societal shift. Many partners noted that the UK was moving toward support for regenerative agriculture, changes in subsidy regimes, and farmers' provision of ecosystem services in lands between protected sites, and hoped that this trend would continue. BOOM's lottery funding – quasi-public money supporting ecological restoration – represents some of this change as well. Overall, narrative policy analysis shows that despite the diversity of BOOM's partners, a consistent story has coalesced in the broader community explaining the decline, disappearance, and future revival of native species and of the human role in the landscape. This narrative will exert political influence in ecological management issues beyond any individual program, as many groups have found that restoration fits their organizational goals.

Beyond Cumbria

There is nothing about BOOM's social or ecological approach that restricts its applicability to Cumbria. Worldwide, many species have been extirpated or reduced (Prosser and Brain 2024), and many people disconnected from nature (Louv 2008). Encouraging communities to see restoration as a continuation of their environmental narratives, and to embrace their heritage by helping popular species return to their former habitat, can work in much of the world. Pride in heritage has been shown to support good social and ecological outcomes (Herring et al. 2022). Avoiding political opposition, centering social goals and partnering with diverse organizations would strengthen other translocation projects and engage more stakeholders in restoring local equivalents of dormice or oblong sundews. Social engagement should be prioritized by restoration practitioners. At the same time, their effectiveness will be limited unless they are combined with work to connect habitat and include long-term funding and monitoring mechanisms.

Conclusion

In this study I examined Back on Our Map, a species reintroduction program in Cumbria, UK. I researched BOOM's stakeholder dynamics using the Narrative Policy Framework, identifying key themes in partner narratives about the project, their organizations' roles in it, and their goals. I further explored the way stakeholder dynamics affected BOOM's social and ecological goals. The data showed that species reintroduction, and BOOM's broad approach, served diverse organizations' goals well, overcoming social fragmentation to weld together an effective coalition and uphold human fulfillment goals for community-based partners. This helped support ecological restoration by ensuring BOOM had sufficient translocation sites, volunteers, and resources to reintroduce or reinforce ten threatened species. BOOM partners were frustrated by spatial and temporal fragmentation, which threatened the project's sustainability. Good habitat for target species occurred in isolated patches, and BOOM's funding ended in 2023, an insufficient amount of time to ensure those species' sustainable reestablishment. These findings indicate that a longer-term approach, with funds distributed across more years, would be valuable, and that stakeholders in fragmented landscapes should work to connect habitat. For future actors, I suggest that reintroducing a variety of publicly palatable species with many partners over a large landscape would be effective elsewhere. The problem of declining species is widespread, and BOOM's approach is not limited to Cumbria. This study expands the use of the Narrative Policy Framework, using it to analyze coalition dynamics and to connect

micro- and meso-level policy elements. The NPF is a valuable tool for producing qualitative data, as BOOM stakeholders naturally expressed themselves through narratives, structuring and illustrating those narratives with key themes. This was true of both interviews and written sources.

Acknowledgements

I very much appreciate everyone at the University of Cumbria who helped facilitate this research, particularly Drs. Ian Convery and Volker Deecke, and the BOOM staff. Funding supporting this paper came from an internal Wofford College summer research grant supporting my analysis and writing process. I gratefully acknowledge it. Publication fees were paid by the University of Vermont. I gratefully acknowledge this.

Disclosure statement

To ensure transparency, I wish to say that this work took place during a sabbatical in the winter and spring of 2023, during which I was an honorary research fellow at University of Cumbria, the lead organization in BOOM. My position there was not affiliated with BOOM, and I received no financial compensation from the University. BOOM and university staff helped facilitate my work by introducing me to interviewees, allowing me access to their field sites, and discussing the project with me. This had no effect on my data or conclusions. BOOM cannot be affected by this work in any way, as the program has ended.

Funding

The work was supported by the Wofford College.

ORCID

Peter Brewitt http://orcid.org/0000-0002-5489-7074

References

Armstrong DP, Seddon PJ. 2008. Directions in reintroduction biology. Trends Ecol & Evol. 23(1):20–25. doi: 10.1016/j.tree.2007.10.003.

Arts K, Fischer A, van der Wal R. 2012. Common stories of reintroduction: a discourse analysis of documents supporting animal reintroductions to Scotland. Land Use Policy. 29(4):911–920. doi: 10.1016/j.landusepol.2012.01.009.

Arts K, Fischer A, van der Wal R. 2016. Boundaries of the wolf and the wild: a conceptual examination of the relationship between rewilding and animal reintroduction. Restor Ecol. 24(1):27–34. doi: 10.1111/rec.12309.

Auster RE, Puttock A, Brazier R. 2020. Unravelling perceptions of Eurasian beaver reintroduction in Great Britain. Eur J Wildl Res. 52(2):364–375. doi: 10.1111/area.12576.

Bailey S, Dunning KH, Morris D, Williamson RD. 2022. How narratives shape policy: lessons learned from port projects adjacent to coral reefs in Florida and the Cayman islands. Mar Policy. 144(June):105233. doi: 10.1016/j.marpol.2022.105233.

Bavin D, MacPherson J, Crowley SL, McDonald RA. 2023. Stakeholder perspectives on the prospect of *lynx Lynx lynx* reintroduction in Scotland. People Nat. 5 (3):950–967. doi: 10.1002/pan3.10465.

Berger-Tal O, Blumstein DT, Swaisgood RR. 2020. Conservation translocations: a review of common difficulties and promising directions. Anim Conserv. 23 (2):121–131. doi: 10.1111/acv.12534.

Borgström S, Zachrisson A, Eckerberg K. 2016. Funding ecological restoration policy in practice—patterns of short-termism and regional biases. Land Use Policy. 52:439–453. doi: 10.1016/j.landusepol.2016.01.004.

Bradley HS, Tomlinson S, Craig MD, Cross AT, Bateman PW. 2022. Mitigation translocation as a management tool. Conserv Biol. 36(1):e13667. doi: 10.1111/cobi.13667.

Brewitt P. 2019. Same river twice: the politics of dam removal and river restoration. Corvallis (OR): Oregon State University Press.

Brichieri-Colombi TA, Moehrenschlager A. 2016. Alignment of threat, effort, and perceived success in North American conservation translocations. Conserv Biol. 30(6):1159–1172. doi: 10.1111/cobi.12743.

Bubac CM, Johnson AC, Fox JA, Cullingham CI. 2019. Conservation translocations and post-release monitoring: Identifying trends in failures, biases, and challenges from around the world. Biol Conserv. 238. doi: 10.1016/j.biocon.2019.108239.

Carlson SC, Vucetich JA, Elbroch LM, Perry S, Roe LA, Butler T, Bruskotter JT. 2023. The role of governance in rewilding the United States to stem the biodiversity crisis. BioScience. 73(12):879–884. doi: 10.1093/biosci/biad099.

Ceballos G, Ehrlich PR, Dirzo R. 2017. Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines. Proc Natl Acad Sci USA. 114(30):E6089–E6096. doi: 10.1073/pnas.1704949114.

Coleman JS. 1958. Relational analysis: the study of social organizations with survey methods. Hum Organ. 17 (4):28–36. doi: 10.17730/humo.17.4.q5604m676260q8n7.

Collier D. 2011. Understanding process tracing. PS: political science and politics. 44(4):823–830. doi: 10.1017/S1049096511001429.

Coz DM, Young JC, Gibbs L. 2020. Conflicts over wildlife conservation: learning from the reintroduction of beavers in Scotland. People Nat. 2(2):406–419. doi: 10.1002/pan3.10076.

Dando TR, Crowley SL, Young RP, Carter SP, McDonald RA. 2023. Social feasibility assessments in conservation translocations. Trends Ecol & Evol. 38 (5):459–472. doi: 10.1016/j.tree.2022.11.013.

George A, Bennet A. 2005. Case studies and theory development in the social sciences. Cambridge (MA): MIT Press.

Glikman JA, Frank B, Bogardus M, Meysohn S, Sandström C, Zimmermann A, Madden F. 2022. Evolving Our understanding and practice in addressing social conflict and stakeholder engagement around conservation translocations. Front Conserv Sci. 3 (March):1–6. doi: 10.3389/fcosc.2022.783709.

Gow D. 2020. Bringing back the Beaver: the story of one Man's quest to Rewild Britain's waterways. White River Junction (VT): Chelsea Green Publishing.

Hajer M. 1995. The politics of environmental discourse ecological modernization and the policy process. Oxford (UK): Oxford University Press.

Hand MC, Morris M, Rai V. 2023 Jun. The role of policy narrators during crisis: a micro-level analysis of the sourcing, synthesizing, and sharing of policy narratives in rural Texas. Policy Stud J. 1–26. doi: 10.1111/psj.12501.
Herring P, Turner S, Severa C. 2022. The historic landscape: assessing opportunity for environmental change. Using assessment of sensitivity and capacity of HLC types to support opportunity modelling in relation to various flood management and natural capital change scenarios natural capital change scenarios. Research Report Series 69. Historic England.
Jagger S. 2024 Nov 24. Pine Martens Released into Lake District Woodland. BBC; https://www.bbc.com/news/articles/c75lrpw3z0do.
Jones MD, McBeth MK. 2010. A narrative policy framework: clear enough to be wrong? Policy Stud J. 38 (2):329–353. doi: 10.1111/j.1541-0072.2010.00364.x.
Jørgensen D. 2011. What's history got to do with it? A response to Seddon's definition of reintroduction. Restor Ecol. 19 (6):705–708. doi: 10.1111/j.1526-100X.2011.00834.x.
Klein L, Arts K. 2022. Public participation in decision-making on conservation translocations: the importance and limitations of a legislative framework. Restor Ecol. 30(1). doi: 10.1111/rec.13505.
Lake District National Park Authority. 2023. Tourism: lake District National Park. https://www.lakedistrict.gov.uk/learning/factstourism.
Lakoff G. 2008. Don't think of an elephant: know your values and frame the debate. White River Junction (VT): Chelsea Green Publishing.
Lawton JH, Brotherton PNM, Brown VK, Elphick C, Fitter AH, Forshaw J, Haddow RW, Hilborne S, Leafe RN, Mace GM, et al. 2010. Making space for nature: a review of England's wildlife sites and ecological network. Report to DEFRA (issue September). http://webarchive.nationalarchives.gov.uk/20130402151656/http://archive.defra.gov.uk/environment/biodiversity/index.htm.
Lesage J, Press D, Holl K. 2020. Lessons from the reintroduction of listed plant species in California. Biodivers Conserv. 29(13):3703–3716. doi: 10.1007/s10531-020-02045-y.
Louv R. 2008. Last child in the woods: saving our children from nature-deficit disorder. Chapel Hill (NC): Algonquin Books.
Marino F, Crowley SL, Williams Foley NA, McDonald RA, Hodgson DJ. 2023. Stakeholder discourse coalitions and polarisation in the hen harrier conservation debate in news media. People Nat. 5(2):668–683. doi: 10.1002/pan3.10437.
Marino F, McDonald RA, Crowley SL, Hodgson DJ. 2024. Rethinking the evaluation of animal translocations. Biol Conserv. 292. doi: 10.1016/j.biocon.2024.110523.
McBeth MK, Shanahan EA. 2004. Public opinion for sale: the role of policy marketers in Greater Yellowstone policy conflict. Policy Sci. 37(3–4):319–338. doi: 10.1007/s11077-005-8876-4.
Nabhan GP. 1991. Restoring and Re-storying the landscape. Ecol Rest. 9(1):3–4. doi: 10.3368/er.9.1.3.
Neilson A. 2021. Disenchanted natures: a critical analysis of the contested plan to reintroduce the Eurasian lynx into the Lake District National Park. Capitalism Nat Socialism. 32(1):107–125. doi: 10.1080/10455752.2019.1680717.
Nie M. 2003. Beyond wolves: the politics of wolf recovery and management. Minneapolis (MN): University of Minnesota Press.
Niles JD. 1999. Homo narrans: the poetics and anthropology of oral literature. Philadelphia (PA): University of Pennsylvania Press.
Pettorelli N, Barlow J, Stephens PA, Durant SM, Connor B, Schulte to Bühne H, Sandom CJ, Wentworth J, du Toit JT, Nuñez M. 2018. Making rewilding fit for policy. J Appl Ecol. 55(3):1114–1125. doi: 10.1111/1365-2664.13082.
Pettorelli N, Durant SM, du Toit JT. 2019. Rewilding: a captivating, controversial, twenty-first-century concept to address ecological degradation in a changing world. Rewilding. 1–11. doi: 10.1017/9781108560962.001.
Polak T, Saltz D. 2011. Reintroduction As an Ecosystem Restoration Technique. Conserv Biol. 25(3):424. doi: 10.1111/j.1523-1739.2011.01669.x.
Prosser R, Brain R. 2024. Where have all the flowers gone? A systematic evaluation of factors driving native terrestrial plant decline in North America. Environ Sci Pollut Res. 31:48460–48483. doi: 10.1007/s11356-024-34349-9.
Rackham O. 1986. The history of the countryside. London (UK): JM Dent and Sons. doi: 10.1016/0169-5347(87)90074-7.
Redpath SM, Bhatia S, Young J. 2015. Tilting at wildlife: reconsidering human–wildlife conflict. Oryx. 49 (2):222–225. doi: 10.1017/S0030605314000799.
Robinson J. 2024 Apr 21. Lynx reintroduction "needs public support." BBC; https://www.bbc.com/news/articles/c0kl58p9vvno.
Royal Society for the Protection of Birds. 2021. Biodiversity loss: the UK's global rank for levels of biodiversity loss. https://www.rspb.org.uk/globalassets/downloads/about-us/48398rspb-biodivesity-intactness-index-summary-report-v4.pdf.
Sabatier P, Jenkins-Smith H. 1993. Policy change and learning: an advocacy coalition approach (P. Sabatier & H. Jenkins-Smith, Eds.). Boulder (CO): Westview Press.
Sandom CJ, Dempsey B, Bullock D, Ely A, Jepson P, Jimenez-Wisler S, Newton A, Pettorelli N, Senior RA, Brudvig L. 2019. Rewilding in the English uplands: policy and practice. J Appl Ecol. 56(2):266–273. doi: 10.1111/1365-2664.13276.
Schattschneider EE. 1960. The semi-sovereign people. New York (NY): Holt, Rinehart, and Winston.
Schlaufer C, Kuenzler J, Jones MD, Shanahan EA. 2022. The narrative policy framework: a Traveler's guide to policy stories. Polit Vierteljahresschr. 63(2):249–273. doi: 10.1007/s11615-022-00379-6.
Schon D, Rein M. 1994. Frame reflection: Toward the resolution of intractable policy controversies. New York (NY): BasicBooks.
Seddon PJ. 2010. From reintroduction to assisted colonization: moving along the conservation translocation spectrum. Restor Ecol. 18(6):796–802. doi: 10.1111/j.1526-100X.2010.00724.x.
Seddon PJ, Armstrong DP, Maloney RF. 2007. Developing the science of reintroduction biology. Conserv Biol. 21 (2):303–312. doi: 10.1111/j.1523-1739.2006.00627.x.
Serenari C, Peterson MN. 2016. A sociopolitical perspective on the illegal take of wildlife in the Southeastern, USA. Int J Rural Criminol. 3(1):29–49. doi: 10.18061/1811/78046.
Serota MW, Barker KJ, Gigliotti LC, Maher SML, Shawler AL, Zuckerman GR, Xu W, Verta G, Templin E, Andreozzi CL, et al. 2023. Incorporating human dimensions is associated with better wildlife translocation outcomes. Nat Commun. 14(1). doi: 10.1038/s41467-023-37534-5.
Shanahan EA, Jones MD, McBeth MK, Radaelli CM. 2018. The narrative policy framework. In: Weible CA, Sabatier

PS, editors. Theories Of The Policy Process, Fourth Ed. doi: 10.4324/9780429494284-5.
Stone D. 2002. Policy paradox: the art of political decision making. New York (NY): W.W. Norton and Company.
Stone D. 2009. Causal stories and the formation of policy agendas. Polit Sci. 104(2):281–300. doi: 10.2307/2151585.
Taylor G, Canessa S, Clarke RH, Ingwersen D, Armstrong DP, Seddon PJ, Ewen JG. 2017. Is reintroduction biology an effective applied science? Trends Ecol & Evol. 32(11):873–880. doi: 10.1016/j.tree.2017.08.002.
University of Cumbria. 2018. Second round application. Carlisle (UK): University of Cumbria.
University of Cumbria. 2023. South Cumbria species restoration. Back on Our Map. https://www.cumbria.ac.uk/business/projects/south-cumbria-species-restoration/.
University of Cumbria, Morecambe Bay Partnership, Cumbria Wildlife Trusts, Natural England, & UK Forestry Commission. 2018. Back on Our Map. (BOOM): South Cumbria Species Restoration Project Activity Plan.
Visit Cumbria. 2023. Local newspapers for Cumbria and the Lake District. https://www.visitcumbria.com/news/.
Weible C, Sabatier P, Jenkins-Smith H, Nohrstedt D, Henry AD, DeLeon P. 2011. A quarter century of the advocacy coalition framework: an introduction to the special issue. Policy Stud J. 39(3):349–360. doi: 10.1111/j.1541-0072.2011.00412.x.
Yeo S. 2020. In Cumbria, a lost world returns. Inkcap. https://inkcap.substack.com/p/in-cumbria-a-lost-world-returns.