The Moorland Association

Written evidence for those participating in the 2025 Westminster debate on driven grouse shooting.

Who we are

Moorland Association members are responsible for over a million acres of the moorlands of England and Wales.

Our work encompasses a wide range of environmental priorities: biodiversity conservation, peatland restoration, wildfire mitigation, carbon sequestration, water catchment protection, support for upland farming and sustainable driven grouse shooting - all guided by evidence-based best practices and ongoing research.

By offering guidance, resources, and scientific insights to gamekeepers, landowners and land managers, the Moorland Association promotes responsible stewardship. It coordinates closely with public bodies, research organisations and policy-makers to shape land management standards. We actively participates in parliamentary and conservation discussions.

Through advocacy, education and collaborative projects, the Moorland Association is a leading voice in upland habitat resilience, championing a model of integrated management that balances environmental sustainability with rural livelihoods and community well-being.

Our members have generously funded much of the published scientific literature on moorland management. Work has been undertaken by institutions including: the Game & Wildlife Conservation Trust, University of York, University of Exeter and the Heather Trust.

We support Defra's statement that "The Government has no plans to ban driven grouse shooting. It recognises well-managed grouse shooting can be an important part of a local rural economy, providing direct and indirect employment."

Contents

Why the Moorland Association rejects a ban on driven grouse shooting

1. Driven grouse shooting is one of the world's great conservation success stories. A unique model that sustains the majority of the planet's remaining heather moorland, supports iconic species such as curlew, golden plover and lapwing. It also restores peat, sequesters carbon, mitigates against wildfire and anchors the economies and identities of remote rural upland communities. The Moorland Association rejects calls to ban or licence driven grouse shooting because these proposals are not just poorly conceived, they are dangerously out of touch with environmental, social and legal realities.

2. Banning driven grouse shooting would severely undermine the UK's ability to meet its legally binding targets under the Environment Act 2021. The evidence clearly shows that driven grouse shooting delivers for biodiversity and climate resilience. It does so through private investment, not public subsidy. Without driven grouse shooting upland conservation goals would become increasingly unaffordable, unachievable and place species at risk from unmanaged decline.

3. Yet despite this, Parliament is being asked, for the third time in nearly a decade, to consider proposals from campaigners who still cannot answer the fundamental questions asked during the first two debates:

    1. **What would they replace driven grouse shooting with?**

    2. **Where is the land that's being managed better without it?**

    3. **And how much will it cost and who will pay?**

4. Until these questions are honestly answered, proposals to ban driven grouse shooting remain *fantasy conservation*. A world divorced from the practical, ecological and financial responsibilities of managing the uplands. In 2016 the Game & Wildlife Conservation Trust told parliament that "critics of grouse moor management continually fail to provide data that refute the clear and substantial evidence that driven grouse moors can protect conservation priority habitats and some of the more threatened upland species for the nation". We agreed then and feel it is still the case today.

5. The same is true for calls to impose licensing. Advocates have yet to explain:

    - **Since all their key concerns, predator control, traditional burning and grit use, are already regulated under existing law, is licensing not just part of the anti-growth agenda?**
    - **How is a new, duplicative system not a clear breach of the government's own Better Regulation Framework (2023), which explicitly warns against burdensome or redundant regulation?**

6. Critics of driven grouse shooting consistently fail to acknowledge the colossal array of regulation that already governs upland land managers (Annex A). From environmental regulation and general licences to cross-compliance and stewardship audits, these landscapes are among the most heavily regulated in the country. Calls for yet more red tape show just how detached some have become from the realities on the ground.

7. These realities are serious. Natural England's policy of halting vegetation management, which leading academics have pointed out is based on scientifically weak foundations and flawed methodologies, is already backfiring (Ashby et al., 2021; Heinemeyer et al., 2021; Future Landscapes Forum, 2023). As a result, Natural England's policies are increasing surface wildfire fuel loads at exactly the same time that the Climate Change Committee has stated we should expect more fire-conducive weather[1]. Wildfires are becoming more severe, not less. The Moorland Association estimates the cost of 2025's wildfires has already exceeded £350 million[2] - and is rising. During the 2025 Westminster debate on wildfire one speaker concluded that "Natural England is not fit for purpose. I am not at all surprised that there is a fundamental breakdown in trust with landowners to whom it dictates. Its behaviour is putting humans, our environment and nature at greater risk"[3]. We agree with this view.

8. Meanwhile, the National Wildlife Crime Unit, which appears captured by activist narratives and regularly echoing rhetoric from the RSPB, is adopting increasingly hostile tactics[4]. It is a stain on public life that one of the most regulated, successful and lawful forms of land use in Britain is now the target of vilification and violence (Denny, 2025a).

9. **An upland gamekeeper is physically assaulted every 12 days. This has to end.**

10. It is time for moral leadership. Parliamentarians must reject empty slogans and instead support those who, for generations, have done the hard, year-round work of protecting our uplands. It was those generations, not theorists or campaigners, who created and cared for the landscapes the world admires today.

11. Driven grouse shooting is not the problem. It is a proven, principled solution. It is time for those who govern to call out the distractions, defend the facts, and stand up for those who deliver.

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[1] CCC statement 2025: "Current climate change projections suggest that in future we will see conditions more favourable for wildfires with hotter and drier summers creating the ideal conditions for fire while milder and wetter winters will encourage plant growth... Projections from the Met Office show that a 2 °C increase in global temperatures will double the days in the UK with very high fire danger and extend the wildfire season into late summer and autumn." https://www.theccc.org.uk/publication/progress-in-adapting-to-climate-change-2025/

[2] https://www.moorlandassociation.org/post/wildfires-have-cost-the-uk-over-350-million-so-far-in-2025-says-moorland-association

[3] The Earl of Caithness, the wildfire debate on Thursday 12 June 2025. Hansard Volume 846. https://hansard.parliament.uk/Lords/2025-06-12/debates/4A12CEB0-E0FD-40DA-A742-F736A71943F8/Wildfires

[4] https://www.moorlandassociation.org/post/blog-surveillance-are-the-police-bypassing-regulation

Executive Summary

1. **Protecting globally important heather moorland.** (page 7)
   Driven grouse shooting sustains globally rare heather moorland, shaped by centuries of human activity. Management practices like burning and mowing support biodiversity and prevent scrub encroachment. Critics highlight drainage and burning concerns, but evidence is mixed. Active gamekeeping enhances habitats year-round, maintaining a cultural landscape reliant on ongoing intervention.

2. **Supporting threatened upland bird species.** (page 10)
   Moorland management, especially predator control and habitat care, plays a crucial role in conserving upland birds like curlew, merlin, black grouse, golden plover and lapwing. Research shows that these species breed more successfully on managed grouse moors. Without this management, populations could fall to dangerously low levels.

3. **Driving private investment and rural economies.** (page 12)
   Grouse shooting encourages private spending on habitat and wildlife management, funding that would be hard to replace. This investment boosts local economies and jobs, especially in remote areas. Without it, significant public or charity funding would be needed to maintain conservation goals.

4. **Cultural and community importance.** (page 14)
   Driven grouse shooting supports rural identity, intergenerational connection and community cohesion. Gamekeepers play key cultural roles, while diverse participation fosters social bonds. The activity also aids public engagement, upland access, employment, physical health and mental well-being. It delivers broad social value in remote areas with limited economic opportunities.

5. **Addressing the hen harrier issue.** (page 16)
   The long-standing conflict between grouse shooting and hen harriers is being addressed through the Defra Hen Harrier Action Plan, including tools like the brood management scheme. These solutions are seen as more effective than bans or restrictive licensing. Evidence from Langholm Moor suggests that even high harrier numbers are unsustainable without gamekeepers and that predator control can help harrier populations.

6. **No clear alternative land uses.** (page 18)
   Those calling for a ban have failed to show any alternative that matches grouse moors in terms of habitat protection, bird conservation or economic value. Other land uses pose challenges:

   - **Forestry**: Fragments habitat, alters water flow, raises predator numbers and tick levels.
   - **Intensive sheep farming**: Converts moorland into low-value grassland, which is costly to restore.
   - **Land abandonment**: Leads to scrub and tree growth, harming ground-nesting birds.
   - **Rewilding/nature reserves**: Often need public funding and may degrade internationally valuable habitats.

- **Eco-tourism**: Has not matched the income from grouse shooting (e.g. no boost in Langholm Moor tourism when it had high hen harrier numbers, nor since its acquisition by the community).
- **Walked-up shooting**: Requires fewer grouse, offers less employment and has shown to have reduced conservation benefits.

7. **Disputed environmental criticisms.** (page 20)
   The environmental impacts of moorland burning are complex and contested, with no scientific consensus supporting a ban. For example, some scientific evidence suggests controlled burning may aid carbon storage, wildfire prevention and biodiversity. Critics often oversimplify impacts and overlook uncertainties surrounding alternatives. Adaptive management and further research are widely recommended over blanket policy decisions.

8. **Existing regulations are in place.** (page 22)
   Driven grouse shooting is already heavily regulated, with legal controls on burning, predator management and medicated grit use. Regulatory oversight, audits, and self-regulation by shooting bodies ensure compliance. Critics demand further regulation, but evidence suggests this may duplicate existing laws, disrupt legitimate activity and ignore significant voluntary environmental standards already in place.

9. **Wider wildlife benefits.** (page 24)
   Driven grouse moor management enhances biodiversity through predator control, disease reduction, and habitat mosaics that support diverse wildlife, including invertebrates and ground-nesting birds. Critics overlook evidence showing benefits beyond red grouse, such as richer species diversity and healthier ecosystems compared to unmanaged moorland, with SSSIs disproportionately found on managed grouse moors.

1. Protecting Globally Important Heather Moorland

1.1. Driven grouse shooting is proven to best maintain and protect heather-dominated moorland, which is considered one of the world's rarest habitats, with the UK hosting an estimated 75% of this global resource (Thompson et al., 1995; GWCT, 2019). This habitat is semi-natural, having been shaped over centuries by human activities like cutting, burning, and grazing (Fenton, 2023). It supports unique plant and animal communities and its importance has been internationally recognized by the 1992 Rio Convention on Biodiversity (United Nations, 1992). The idea that these precious landscapes are 'protected' through legal designation by Natural England is too simplistic. The Heather Trust has found that England has lost another 609 km² of heather moorland since 1990 (Heather Futures, 2025).

1.2. The specific management practices employed on grouse moors, such as controlled burning, grazing and mowing, are designed to encourage new heather growth, creating a mosaic of different age classes and vegetation compositions (GWCT, 2019). This varied age-structure is crucial for maintaining a greater diversity of flora and fauna on a landscape scale compared to areas with no vegetation management (Moritz et al., 2022; Future Landscapes Forum, 2023). For example, comparisons at Moor House National Nature Reserve (NNR) have shown clear benefits for plant biodiversity from burning, leading to increased 'peat-forming' species, versus unmanaged areas dominated by old heather (Milligan et al., 2018). This active management also prevents the natural succession of heather moorland to scrub and tree regeneration, which would occur if management ceased, leading to a loss of open landscapes and benefiting different species (Thompson et al., 1995).

1.3. Grouse moor management involves year-round tasks by gamekeepers, including active vegetation management plans, even in non-shooting years (Denny, 2025a). The work of gamekeepers on 58 surveyed English grouse moors, covering some 450,000 acres, includes extensive habitat improvement efforts since 2021, such as rewetting, peat restoration and bracken management (Denny, 2025a). This proactive approach to habitat management is deemed essential for the perpetuation of this cultural landscape (Denny, 2023).

1.4. Opponents of driven grouse shooting often argue that moorland management, particularly heather burning and drainage, degrades these natural habitats. However, the evidence suggests a more complex picture.

1.5. The claim that moorland is extensively drained for grouse is generally refuted. Historical drainage was often undertaken for agricultural purposes, with government grants encouraging such practices in the mid-20th century, not specifically for grouse (GWCT, 2020a). In fact, drainage can negatively impact grouse success by creating obstacles for chicks and reducing insect food sources (Carroll et al., 2015; Coulson et al., 1990). Grouse moor managers have already blocked 7,000 km of historic drainage channels to re-wet peatlands, often as part of government-subsidised schemes such as Higher Level Stewardship (HLS), which specifically provides payments for such restoration.

1.6. Some opponents of heather burning call for a blanket ban. The Moorland Association is deeply concerned that such proposals, including those in Defra's recent consultation, are dangerously misguided and will dramatically increase the risk of severe wildfires across England's moorlands. The resulting increase in fuel loads is potentially leading to loss of life, homes and vital infrastructure. Defra are at risk of destroying irreplaceable landscapes and peatland carbon stores. Scientific consensus on its detrimental effects is lacking and evidence is often mixed or contradictory (Davies et al., 2016; Future Landscapes Forum, 2023). Crucially, traditional cool burning, carried out in winter and spring, burns only the vegetation above ground. This leaves the peat itself cool and undamaged and the moss layer in place, contrasting sharply with hotter, uncontrolled wildfires that ignite peat and release vastly more carbon.

1.7. The scientific studies suggesting the positive impacts of heather burning, such as increased sphagnum cover and other peat-forming species are being ignored (Milligan et al., 2018; Whitehead et al., 2021). The Future Landscapes Forum, a group of academic experts, highlights that traditional heather burning can maintain varied age-structures in heather communities, supporting biodiversity (Future Landscapes Forum, 2023). They also note that insufficient research exists on alternatives like mowing, and that cutting vegetation can lead to problematic litter accumulation and increased fire risk through smouldering, potentially causing catastrophic carbon loss (Santana et al., 2014).

1.8. The Moorland Association's members, who utilise traditional cool burning, have seen first-hand its benefits in managing fuel load and creating essential firebreaks to minimise wildfire impact. The cost of wildfires in the UK this year has already exceeded £350 million, and Defra's policy should account for this potential avoidable loss if wildfire policy focuses on ineffective fuel load management.

1.9. The assertion that re-wetting alone is sufficient to manage peatlands and reduce the need for vegetation management, or that it will automatically make them fire resilient, is unevidenced and ill-informed. In many areas, especially naturally drier or sloping blanket bogs, heather biomass may in fact increase when water stress is reduced and re-wetting cannot achieve the year-round water table levels required to adequately limit heather growth. Wetlands can and do burn, as demonstrated by severe wildfires in the Brazilian Pantanal wetlands[5]. Furthermore, the assumption that all peatlands can be treated with the same management approach, ignoring fundamental differences in ecohydrology, is refuted by the Moorland Association, as it risks causing significant harm and demonstrably increasing wildfire risk.

1.10. Restricting the practice of traditional cool burning also risks a significant and irreversible loss of knowledge, skills, and resources among upland communities in dealing with vegetation fires. Upland gamekeepers are often among the first people to attend a wildfire, providing crucial early intervention and offering vital local knowledge on access, topography and water sources

[5] The 2024 South American wildfire season saw over 1.3 million hectares of the Brazilian Pantanal wetlands burned https://www.worldweatherattribution.org/hot-dry-and-windy-conditions-that-drove-devastating-pantanal-wildfires-40-more-intense-due-to-climate-change/?utm_source=chatgpt.com

to the Fire and Rescue Service; if they lack experience with working with fire in future, they will be ill-equipped to respond and support, seriously undermining national wildfire response capabilities across the uplands

1.11. The argument that grouse moors are "de-wilded" or as "unnatural as a car park" ignores the historical context of these landscapes. They are largely cultural creations, shaped by human activity over millennia, and active management is necessary to maintain their current form and associated biodiversity (Fenton, 2023).

1.12. This further supports the refutation of Natural England's erroneous view that all peatlands in the uplands of England and Wales are all the same and can be treated with a single, uniform management approach. Natural England continues to ignore the vast differences between sites and habitats due to their varied underlying geology, hydrology, altitude, and local climate.

1.13. Heather moorland is just one of semi-natural landscapes that require active management. Others include chalk grassland, ancient wood-pasture and parkland, wet heaths and bogs, calcareous grassland, saltmarsh and coastal grazing marsh, rough grassland and unimproved pasture, lowland meadows, upland pastures and coastal machair. We note that the ongoing active management of these other semi-natural landscapes attract no criticism.

1.14. Against this background it is not clear what constitutes an "intact" or "natural" blanket bog in the UK, given centuries of human influence. This adds a further challenge as to what evidence-based targets should guide restoration efforts beyond anecdotal claims, which remain highly contested.

1.15. Finally, there is just one upland National Nature Reserve (NNR) that the regulator, Natural England, manages itself. Despite being under state control since 1952, 80% of the Sites of Special Scientific Interest (SSSI) at Moor House (as assessed by Natural England itself) are in unfavourable condition. One of the purposes of NNR's was to showcase best-practice conservation. It must surely be a matter of concern to parliamentarians that after 70 years of state ownership and public funding, it is still in such 'poor' condition. Equally, those managing land in the uplands must question the advice and direction they receive from Natural England. Either way, grouse shooting ceased on this 10,000 acre moor over 70 years ago and yet it is failing.

Questions:

Do critics of grouse moor management agree that driven grouse moors have been successful in protecting these conservation priority habitats and species for the nation?

Without driven grouse shooting, who pays to protect globally important moorlands, and can the alternatives deliver the same outcomes without public subsidy?

Supporters of a ban on driven grouse shooting have failed to acknowledge the contradictory evidence on heather burning and flooding, which is possibly due to the complexity of the ecological system.

2. Supporting Threatened Upland Bird Species

2.1. Moorland managed for driven grouse shooting plays a crucial role in the conservation of several threatened species, particularly ground-nesting birds (Douglas et al., 2014; Fletcher et al., 2010). The comprehensive management package on these moors, which includes habitat enhancement and predator control, is demonstrably beneficial (GWCT, 2016; Douglas et al., 2014; Fletcher et al., 2010). Research indicates that these species breed more successfully on managed grouse moors, and without such management, their populations could decline to dangerously low levels as has happened at RSPB Lake Vyrnwy (Denny, 2025b).

2.2. Specific evidence highlights significant positive impacts on red-listed wader species. For example, results from the Langholm Moor Demonstration Project showed that restoring grouse management led to increases in curlew numbers by 10% per year, golden plover by 16%, and snipe by 21% (Ludwig et al., 2019). Conversely, areas where integrated moorland management has ceased, such as parts of the Berwyn Special Protection Area (SPA) in Wales, have seen declines in red and black grouse, golden plover, lapwing, and curlew (Warren et al., 2012; Whitehead et al., 2018).

2.3. The distribution map of breeding curlew in the UK shows an "almost mirror image" correlation with the distribution of grouse moors, supported by numerous scientific studies (GWCT, 2022). Grouse moors appear to act as 'source populations' for curlew and other waders, largely due to effective predator control (Baines et al., 2023). This study found twice as many waders on grouse moors compared to non-grouse moors, with curlew occurring four times more frequently (GWCT, 2023).

2.4. English grouse moors are estimated to host approximately 53% of the UK's curlew population and 42% of its lapwing population (Denny, 2025a). Since 2021, 58 surveyed moors have fledged young equivalent to about 12% of the UK curlew population, 9% of the lapwing population, and over 10% of the golden plover population (Denny, 2025a). This contrasts sharply with some RSPB reserves, where, for instance, Lake Vyrnwy had only one curlew pair nesting in 2024 and a golden plover sighting for the first time in 40 years, despite managing a large moorland area (Denny, 2025b).

2.5. In addition to waders, grouse moor management also benefits some raptor species. Twenty-seven years of studies on Langholm Moor found that ground-nesting raptors like hen harriers and merlin increased during periods of grouse moor management and had higher successful nesting attempts (Ludwig et al., 2020b; Douglas et al., 2020). The success of these raptors was primarily limited by predation (Ludwig et al., 2020b). All 58 surveyed grouse moors in England were home to at least two species of successfully breeding raptors, including hen harriers in some areas (Denny, 2025a).

2.6. A primary counter-argument against driven grouse shooting is the opposition to predator control, which some critics claim is excessive or harmful to wider ecosystems. However, the evidence supports the necessity of legal predator control for the success of ground-nesting birds.

2.7. Many conservation organizations, including the RSPB and National Trust, also utilise predator control where necessary to protect at-risk species (Harper, 2018). World authority on bird populations, Ian Newton, has stated that medium-sized generalist predators like foxes and crows are unnaturally abundant on moorland (Denny, 2023). The GWCT's Upland Predation Experiment showed that lapwing, golden plover, curlew, red grouse, and meadow pipit bred, on average, three times more successfully with predator control (GWCT, 2010). Without it, their numbers declined (Baines et al., 2023). Mary Colwell, founder of Curlew Action, emphasizes that conservationists must choose between gamekeepers with curlew or no gamekeepers with no curlew (Denny, 2023).

2.8. While there are acknowledged instances of illegal raptor killing on some grouse moors, this does not negate the overall positive impact of grouse moor management on raptor populations. Many estates actively work to protect and increase raptor numbers (GWCT, 2023). The abundance of passerines (songbirds) and small mammals that thrive on grouse moors provides a crucial food source for raptors. When moor management for driven grouse shooting ceased in the Berwyn SPA, red-listed birds, including raptors, declined, while generalist predators increased (Warren et al., 2012). This suggests that the cessation of driven grouse management could lead to a decline in raptor numbers due to reduced food availability and increased unmanaged predation pressure (Denny, 2023).

2.9. Some small-scale studies by the RSPB (Douglas et al., 2023) suggest predator control to be ineffective for curlew and snipe but this is countered by the fact that these studies were short-term (four years) and not comparable to long-term, sustained predator control on grouse moors (Denny, 2025b). The RSPB's own report acknowledged that high mesopredator numbers meant lethal control was "highly unlikely to be effective... within agri-environment schemes" but could be for lapwing, and recommended addressing underlying drivers of high mesopredator densities at a landscape scale (Douglas et al., 2023).

Question: What's the alternative to effective, privately funded predator control on grouse moors, and can it deliver the same conservation outcomes for ground-nesting birds and biodiversity?

3. Driving Private Investment and Rural Economies

3.1. Driven grouse shooting is a significant driver of private investment and economic activity in remote rural areas of the UK (Denny, 2025a). This activity encourages substantial private spending on habitat and wildlife management, which would be difficult to replace through public or charitable funding (GWCT, 2016). Moor owners and tenants often do not aim to make a profit directly from shooting, viewing it as part of a larger, integrated moorland management system that they are willing to subsidise through their own capital (Denny, 2023). This long-term private investment is crucial for maintaining the unique moorland environment.

3.2. The economic impacts extend far beyond the direct act of shooting. A 2020 study identified six "orders" of economic impacts from moorland managed for driven grouse shooting, highlighting a complex web of interconnected activities (Denny et al., 2020). These include:

First Order Impacts: Employment of full-time gamekeepers (year-round salaries, housing, vehicles, equipment), expenditure by "Guns" (shooters) on accommodation, dining, local shops, and vehicle hire (seasonal), and the employment of casual labour (beaters, flankers, pickers-up, loaders, drivers, caterers) on shoot days. A typical driven grouse day can involve over 50 people, sometimes up to 100, including casual staff (Millington-Drake, 2015). The 58 moors surveyed in England in 2024 generated approximately £48.7 million in economic activity annually in shooting years, including £1.7 million paid to support staff (Denny, 2025a).

Second Order Impacts: Engagement of a wide range of outdoor contractors (for roads, fencing, butts, peat restoration, bracken control, drain blocking) and indoor contractors (carpenters, caterers, laundries), as well as expenditure with local businesses by estate staff and professional services. The 58 surveyed moors spent approximately £7.4 million annually with contractors. This expenditure continues even in non-shooting years (Denny, 2025a).

Third Order Impacts: The financial facilitation role of estates in enabling farmers to access agricultural subsidy schemes. For example, the ability to enter Countryside Stewardship schemes on many uplands can depend on a wealthy sporting manager to finance initial capital works (Denny, 2023).

Fourth Order Impacts: Increased quality and per-head spend in local hotels, restaurants, and pubs due to high-value non-shooting tourism.

Fifth Order Impacts: Reduced costs of health risks to humans, farm animals and wildlife due to bracken and tick control.

Sixth Order Impacts: Economic benefits from carbon sequestration, wildfire reduction and flood mitigation through moorland management.

3.3. The total annual expenditure generated by the 58 surveyed English grouse moors in a good shooting year is estimated to be over £46.9 million, excluding the £1.7 million paid to support staff (Denny, 2025a).

3.4. This figure can reach as high as £121 million for all English moors (Denny, 2025a). This high-value tourism primarily occurs outside the main tourist season, providing crucial income to remote rural communities. In poor breeding years, local businesses can lose substantial income.

3.5. Opponents argue that driven grouse shooting is not economically viable and that alternative land uses would be more profitable. This argument often uses a narrow definition of economic viability, focusing solely on the direct profit from shooting itself, rather than the broader, integrated economic model.

3.6. Studies that claim driven grouse shooting is not profitable often look at it in isolation, rather than as part of a diversified rural enterprise (McMorran et al., 2020; Denny, 2023). Estates frequently generate income from other activities like agriculture, forestry, renewable energy, and property rental, and grouse shooting can subsidise these activities or be subsidised by them. The "Six-Order Economic Model" developed by Denny & Latham-Green (2020) illustrates that focusing only on immediate shooting income ignores significant indirect and long-term economic benefits (Denny, 2023).

3.7. Claims that alternative land uses like tourism or forestry are more profitable often lack comprehensive evidence (McCann, 2018; Denny, 2023). Research indicates that country sports (shooting and fishing) have historically contributed more to the economy than other alternatives like snow sports, water sports and nature tourism (Bryden et al., 2010; PACEC, 2015; Denny, 2023). While some forestry may be profitable due to grants, it often comes with negative environmental and social impacts (Denny, 2023). Eco-tourism, for example, has not matched the income from grouse shooting, as seen in the Langholm Moor Demonstration Project where despite high hen harrier numbers, tourism did not significantly increase (Denny, 2023).

3.8. The notion that landowners of grouse moors are solely profit-driven is also challenged. Many explicitly state their commitment to leaving a better environment for future generations and see a symbiotic relationship between farming and shooting (Denny at al., 2020). Their willingness to bear financial losses for conservation is a unique aspect of this private investment (GMMRG, 2019; Denny, 2023).

Question: A ban on driven grouse shooting would result in a drop in the private investment in conservation by moor owners. Those proposing a ban should be challenged to explain how much additional government or charitable funding would be required to meet statutory conservation targets.

4. Cultural and Community Importance

4.1. Driven grouse shooting is deeply intertwined with the cultural heritage and community identity of many upland areas in the UK (Denny, 2023). It is not merely a sport but a complex web of activities that fosters community cohesion, inter-generational connections, and a strong sense of place for those living and working on the moors (Denny at al., 2020; Latham-Green, 2020b; Denny, 2023). Gamekeepers, in particular, are central to this cultural fabric, often leading community activities and acting as custodians of the land (Gaskell et al., 2010; McMorran, 2013; Denny, 2025a).

4.2. The activity itself brings together a wide range of individuals from various backgrounds, including those that shoot, beaters, pickers-up, loaders, drivers, caterers and other supporters (Latham-Green, 2020b; Denny, 2023). This diverse "cast list" facilitates social interaction and strengthens community bonds. For many, participation in driven grouse shooting is seen as an integral part of their rural identity (Hillyard at al., 2012; Latham-Green, 2020a; Denny, 2023). UNESCO recognizes such social practices, knowledge, and seasonal events as "intangible cultural heritage" (United Nations Educational, Scientific and Cultural Organisation, 2018).

4.3. Beyond the direct participants, grouse moors contribute to community well-being by maintaining attractive and accessible landscapes that millions visit annually for leisure activities like walking and birdwatching. Gamekeepers actively engage with the public, hosting visits and participating in local events to explain their work. Their year-round presence and activities, such as maintaining tracks and controlling bracken, make the moors enjoyable for all users (Denny, 2025a).

4.4. The social benefits also extend to supporting employment in remote areas, particularly for casual staff like beaters (Denny, 2025a). This income is vital for people in areas with limited alternative employment opportunities (Denny, 2023). The involvement in shooting activities provides regular physical exercise, with beaters typically walking 12 miles or more over rough terrain (Latham-Green, 2020). This physical activity contributes to better physical and mental health, offering significant societal value in terms of healthcare savings (WHO, 2020; Latham-Green, 2020). Moreover, the social interaction and active participation help combat loneliness and social isolation, which are recognized determinants of health (Mcdaid et al., 2017; Valtorta et al., 2018; Denny, 2025a).

4.5. Critics often overlook or dismiss the social and cultural importance of driven grouse shooting, sometimes portraying it as an elitist pastime detached from local communities. However, the evidence directly contradicts this narrow view. The studies by (McMorran, 2009) and (McMorran et al., 2013) on Scottish moorland communities found that residents perceived significant positive impacts, including employment, income for local businesses, and environmental improvements, strongly outweighing negative impacts. Crucially, the year-round presence of gamekeepers and their families, as customers of local businesses, was highlighted as more economically important than the seasonal shooting parties (McMorran, 2009; Denny, 2023).

4.6. The argument that grouse shooting is an "elitist" activity for "bloated plutocrats" (Stanford, 1968) is considered a caricature that ignores the broad participation of local people from diverse backgrounds (Denny, 2023). The involvement of casual labour, many of whom live locally and value the income and social interaction, highlights the community embeddedness of the activity. Surveys show that a significant majority of people involved in driven grouse shooting days are local inhabitants, traveling less than 20 miles (Denny, 2025a).

4.7. Critics also fail to account for the "intangible cultural heritage" aspect of grouse shooting, which provides a sense of identity and continuity for communities (UNESCO, 2018). Removing this activity could have profound negative social consequences, impacting community cohesion and individual well-being. The social impacts are not simply "unquantified benefits" but have demonstrable value in terms of health and community resilience (Denny, 2023).

Question: What proven alternatives can replace the social cohesion, rural identity, and conservation engagement currently sustained by driven grouse shooting?

5. Brood Management Can Help Harriers

5.1. Brood management is a conservation tool designed to mitigate conflicts between hen harrier populations and driven grouse shooting, aiming to increase overall hen harrier numbers and distribution. This approach involves taking hen harrier eggs or chicks from nests on grouse moors once densities hit a threshold. They are then reared in captivity before being released back into suitable wild habitats when they are old enough to fly (Defra, 2016).

5.2. The core rationale for brood management stems from findings at Langholm Moor, where hen harrier numbers rose significantly (from 2 to 20 pairs) between 1992 and 1997 on a driven grouse moor. However, this led to the abandonment of shooting because harriers predated over a third of grouse chicks (GWCT, 2016). This conflict created a "lose/lose" situation, impacting the local economy and leading to the cessation of generalist predator control, which in turn caused declines in both harrier and wader populations. The Langholm Moor Demonstration Project sought solutions to this conflict.

5.3. The Joint Hen Harrier Action Plan in England, involving a range of shooting and conservation organisations, has implemented brood management as a key element (Defra, 2016). The seven year trial increased hen harrier breeding success in England to the highest levels in 200 years. This initiative provides an incentive against illegal activity by allowing grouse moor management to continue, while also contributing to increasing hen harrier numbers.

5.4. Despite the brood management scheme being one of Europe's most successful conservation projects Natural England chose to end it in 2025. In doing so it breached IUCN guidance on conflict resolution and is yet another illustration of Natural England's failure to embrace the findings of the 2025 Corry Review. Natural England also ignored the evidence that the management of moorland to support grouse numbers can benefit hen harriers and merlin, as the 27-year study at Langholm showed. Ground-nesting raptor numbers increased during periods of grouse moor management and had higher successful nesting attempts, with predation being the main cause of breeding failure for both raptor species (Ludwig et al., 2020b).

5.5. While acknowledging that illegal activity can occur on some grouse moors, the argument that it is "inevitable" or the sole cause of low harrier numbers is open to challenge. Convictions for raptor crimes are extremely low. Many estates and gamekeepers actively protect raptors, and raptors benefit from the abundant prey (small mammals, passerines) thriving on grouse moors due to the control of generalist predators. The cessation of moorland management for grouse, as seen in the Berwyn SPA, led to declines in hen harrier numbers, suggesting that the active management for grouse can be beneficial for harriers (Warren et al., 2012).

5.6. The opposition to brood management by some activists (St John et al., 2019) is challenged as being process-focused rather than outcome-focused (Denny, 2023). The GWCT argues that refusing to embrace brood management, despite its demonstrated success in increasing breeding pairs and successful fledging in England, bypasses expert recommendations and years of trials (GWCT, 2020b). The Scottish Government's focus on raptor populations "on or within the vicinity of grouse moors" is also criticized for potentially taking a narrow view that doesn't

consider broader UK raptor success or the parameters for sustainable recovery (Santangeli et al., 2021).

5.7. The claim that illegal killing accounts for a very high percentage of hen harrier mortality (Ewing et al., 2023) is criticised for omitting crucial context, such as Natural England's statements on increasing harrier numbers and success in meeting conservation targets in English SPAs with driven grouse moors. The RSPB's opposition to brood management and reintroduction efforts in Southern England, despite these successes, is viewed as undermining effective conservation (Denny, 2023).

5.8. Finally, the argument that less intensive moor management or walked-up shooting is a "better" alternative for hen harriers is countered by the economic reality that these alternatives are often not financially viable for maintaining the necessary habitat management and predator control that benefits both grouse and harriers (Sotherton et al., 2009). Without the economic incentive of driven grouse shooting, the required investment for habitat and predator management is unlikely to be sustained, potentially leading to long-term adverse impacts on hen harriers and other ground-nesting birds.

Question: Brood management has resolved wildlife conflicts in other nations such as France and Spain. Are those calling for the banning or licensing of driven grouse shooting to protect birds of prey more focused on process than a workable solution?

6. No Clear Alternative Land Uses

6.1. The absence of clear alternative land uses, that can match driven grouse shooting's comprehensive contribution to habitat protection, bird conservation and economic value, is a real concern. Those advocating for a ban on driven grouse shooting have not provided sufficient evidence to demonstrate that their proposed alternatives would deliver a net gain across environmental, social, and economic sustainability dimensions (Denny, 2023; GWCT, 2016). The commonly suggested alternatives have limitations:

Forestry: While afforestation can sequester carbon, large-scale coniferous planting, especially on peatlands, fragments existing habitats, alters water flow, and can increase predator and tick levels, leading to a loss of biodiversity specific to open moorlands (UK NEA, 2011; Douglas et al., 2020; Denny, 2023).

Intensive Sheep Farming: This practice, often encouraged by historical government grants, can convert valuable heather moorland into low-value grassland, with significant negative environmental impacts and high restoration costs (Durie, 1998; Clark et al., 2019; Ludwig et al., 2020a). Without subsidies, many upland farms are unprofitable (Clark et al., 2019).

Land Abandonment: Ceasing active management can lead to the natural succession of moorland to scrub and tree growth, which harms ground-nesting birds that rely on open habitats (Thompson et al., 1995; Denny, 2023).

Rewilding/Nature Reserves: While appealing, these often require substantial public or charitable funding and may not maintain internationally valuable existing habitats (GWCT, 2016; Denny, 2025b). There is limited long-term research on the outcomes and timeframes for ecosystem recovery in UK rewilding projects (Wauchope et al., 2022; Denny, 2023). Rewilding can also be perceived as externally imposed, leading to local community resentment (Lorimer et al., 2015; Pellis, 2019; Hall, 2019). It is also a concern that some nature reserves that have attracted significant public funds have failed to even maintain bird populations (Denny, 2025b).

Eco-tourism: While present, eco-tourism has not consistently matched the high-value income generated by driven grouse shooting (Duvivier, 2021; GWCT, 2016). For instance, the Langholm Moor Demonstration Project, despite creating visible hen harrier populations, did not see a discernible increase in tourist activity (GWCT, 2016). Traditional tourism also does not directly fund land management or purchase goods and services from local contractors to the same extent (Denny, 2025a).

Walked-up Shooting: While seen by some as a "better" alternative, walked-up shooting requires fewer grouse, offers less employment, and has shown reduced conservation results (Sotherton et al., 2009; GWCT, 2016; Denny, 2023). It is often not economically viable as a sole management objective (Sotherton et al., 2009; Warren et al., 2012).

6.2. It is important to note that land use is not an either/or choice, but rather a mix of activities and driven grouse shooting is a valuable part of this integrated management. Without driven grouse shooting, the combined benefits are unlikely to be achieved (Denny, 2023).

6.3. Some argue that alternative land uses are "better" or more "sustainable" than driven grouse shooting, but these claims often lack comprehensive supporting evidence across all three pillars of sustainability (economic, environmental, social).

6.4. The assertion that alternatives are more economically viable is frequently based on partial analysis. Studies suggest that alternative uses often rely on significant government subsidies for profitability, unlike driven grouse shooting which is primarily privately funded. For example, afforestation can be more profitable with grants, but this doesn't account for the loss of unique moorland habitat and associated biodiversity (GMMRG, 2019; Denny, 2023). The "Six-Order Economic Model" is proposed as a necessary tool for assessing these alternatives holistically, a step largely absent in the critics' arguments (Denny, 2023).

6.5. Claims of superior environmental outcomes from alternatives like rewilding often lack long-term, controlled studies (Wauchope et al., 2022). While rewilding aims to restore ecosystems, the specific outcomes and timescales are often unknown, and it may not maximise all aspects of natural capital (Denny, 2023). The absence of active management can lead to habitat degradation for species requiring open moorland (Thompson et al., 1995).

6.6. The social impacts of alternatives are rarely fully considered by critics. Moving away from driven grouse shooting would mean a loss of a seasonal, participatory activity that provides significant social cohesion, employment, and well-being benefits to local communities (Denny et al., 2020). Proponents of alternatives have largely failed to identify how these social benefits would be maintained or replaced. We note that in 2023 the director of Rewilding Britain conceded that there are no published studies to support its stated view that rewilding projects, in general, result in more employment over the long-term.

6.7. The "false dichotomy" argument is crucial here: integrated moorland management, including grouse shooting, often already incorporates elements of conservation, alternative energy, and limited forestry (Denny, 2023). Therefore, proposing a complete replacement ignores the existing multi-functional nature of these landscapes.

Question: Those proposing changes to ban or restrict driven grouse shooting should be challenged to produce evidence of the net gain that the alternative land use they propose will bring to society – economic, social and environmental.

7. Disputed Environmental Criticisms

7.1. The environmental impacts of moorland management, particularly controlled burning, are highly contested, with evidence often mixed or subject to different interpretations (Davies et al., 2016). The Future Landscape Forum, a group of academic experts, emphasises that there is no scientific consensus to support a blanket ban on controlled burning and that an adaptive management approach is needed given knowledge gaps (Future Landscapes Forum, 2023).

7.2. Central to these disputes is the scientifically weak foundation of Defra's consultation on heather burning, which relies heavily on Natural England publications (NEER155 and RP2967) that the Moorland Association believes are opinionated, biased towards weak scientific studies, and inadequate in their methodology. These documents contain overgeneralised definitions, rely on arbitrary thresholds, and ignore key ecological functions, with Natural England itself acknowledging their definition as a "judgement rather than a scientific truth".

7.3. There are well-recognised knowledge gaps regarding the impact of various land management techniques on wildfire risk, which are critical for effective policy development, as acknowledged by Defra's own England Peat Action Plan (2021). A large, multi-centre study, IDEAL UK FIRE, specifically designed to address this problem by studying the impact of managed burning, mechanical cutting, re-wilding, and re-wetting on carbon balance, biodiversity, and wildfire risk, has been underway since 2023 and is due for completion in 2027. Attempting to alter land management policy in the uplands before this critical research is complete is therefore inappropriate and dangerous, risking a repeat of detrimental outcomes from past government policies in the uplands.

7.4. On carbon capture, published science does not conclusively show that controlled burning is detrimental on managed heather peatlands (Harper et al., 2018; Future Landscapes Forum, 2023). Instead, there is evidence that biochar produced by controlled burning can effectively lock up carbon in peatland soils (Worrall et al., 2013; Leifeld et al., 2018; Heinemeyer et al., 2018). Charcoal may also reduce microbial decay and greenhouse gas emissions like methane (Flannagan et al., 2020; Davidson et al., 2019). Some studies suggest biochar effects are more effective at carbon capture than cutting vegetation or unmanaged litter decomposition (Heinemeyer et al., 2019; Heinemeyer et al., 2023; Worrall et al., 2013). Unmanaged, aging heather can dry out peat, stimulating decomposition and reducing net carbon uptake, while heather cutting may increase sedge cover and methane emissions (Heinemeyer et al., 2023).

7.5. Regarding water quality and flood control, the evidence is also inconclusive and complex. A 2012 RSPB-commissioned report found no definitive evidence that land management for game shooting negatively impacted flooding, noting that drainage and management could have both positive and negative effects on water flows (Grant et al., 2012). The report concluded that further research at multiple scales was needed. Grouse moor managers are actively engaged in blocking historical drains and rewetting moorland, often benefiting water quality and flood mitigation (GWCT, 2020a).

7.6. Furthermore, managed burning can reduce fuel loads, leading to less severe wildfires and allowing better access for firefighting, which is increasingly important with climate change (Future Landscapes Forum, 2023). Gamekeepers are recognized experts in moorland fire knowledge and actively assist Fire & Rescue Services and conservation organisations in fighting wildfires, including on non-grouse moors (Denny, 2025a).

7.7. Opponents frequently assert that moorland burning severely damages peatlands, releases carbon, and exacerbates flood risk, often citing these as reasons for a ban. These claims are critiqued for being overly simplistic, selectively evidenced, and lacking comprehensive scientific support.

7.8. The argument that burning is universally damaging to peatlands is not supported by a scientific consensus (Future Landscapes Forum, 2023). Many studies cited by critics are based on small-scale experiments or do not extend over a full management cycle, making it difficult to draw robust conclusions about ecosystem impacts (Heinemeyer et al., 2021). Accusations about the quality of science related to charcoal in peatland carbon accumulation are often based on "unfounded accusations" and "misleading model scenarios" (Ashby et al., 2021).

7.9. The claim that rewetting bogs alone will become fire resilient is not based on applicable evidence and ignores factors like climate change, topography and seasonal droughts that affect wetness (Gallego-Sala et al., 2013; Ashby et al., 2021; Future Landscapes Forum, 2023; Denny, 2023). In some cases, wetter areas may even increase biomass and fuel production, potentially increasing fire severity (Arkle et al., 2012; Future Landscapes Forum, 2023). Moreover, increased sphagnum cover, while buffering against some effects, could lead to increased methane emissions if it increases sedge cover in heather-dominated shallow peat soils (Heinemeyer et al., 2023; Future Landscapes Forum, 2023).

7.10. The argument that moorland drainage for grouse shooting increases flood risk is misleading. As noted, historical drainage was primarily for agriculture, and current grouse moor management often involves re-wetting activities (GWCT, 2020a; Denny, 2023). The complex interplay of grazing, burning, drainage and restoration makes it difficult to isolate single causes for flood risk without multi-scale research (Grant et al., 2012a).

7.11. The Future Landscapes Forum stresses that "insufficient science" exists regarding alternatives to controlled burning (Future Landscapes Forum, 2023). Applying the precautionary principle only to burning, while ignoring potential negative impacts of other management practices like mowing (Santana et al., 2014; Harper et al., 2018), is inconsistent and unfairly places the burden of proof solely on traditional burning, despite the fact that alternatives like mechanical cutting often lack robust long-term ecological validation or comprehensive impact assessments (Ashby et al., 2021).

Question: Supporters of a ban on driven grouse shooting should be challenged to explain the clear imbalance in their evidence. Secondly, there is a failure to recognise the associated risks that may result from changes in practice.

8. Existing Regulations Are in Place

8.1. Moorland management practices associated with driven grouse shooting, including heather burning, predator control and the use of medication, are already extensively regulated by law (Annex A). Landowners and managers must already comply with significant legislation and regulations (Denny, 2023). This includes specific licensing requirements for predator control (General Licenses), controlled burning regulations and controls on medicated grit use. For example, medicated grit, used to control strongyle worm in grouse, requires a veterinary prescription and has withdrawal periods before grouse enter the food chain.

8.2. Regulatory bodies like Natural England oversee these practices, and moor owners, gamekeepers and contractors are required to complete extensive paperwork and maintain detailed records of their activities. Audits are conducted, particularly for areas under subsidised stewardship schemes. The scope of compliance is often greater than for many non-rural businesses (Denny, 2023).

8.3. Shooting organizations, such as BASC, GWCT, and the Moorland Association, actively promote "best practice" standards and lead self-regulation initiatives, such as Aim to Sustain standards (BASC, 2019; Denny, 2023). These initiatives include the voluntary transition away from lead shot in ammunition.

8.4. Opponents argue that existing regulations are insufficient and call for additional measures, such as a licensing scheme for grouse moors, often implying widespread illegal activity or a lack of accountability. These arguments are often critiqued for focusing on processes over workable solutions and for failing to acknowledge the existing regulatory landscape.

8.5. The demand for additional licensing may not offer real benefits beyond existing laws and could be used vexatiously to disrupt legitimate operations. The suspension of general licences in England and Wales, due to legal challenges by groups like Wild Justice, has caused disruption to communities, businesses and wildlife. Concerns exist that additional schemes could be abused to hinder lawful moor management without foundation.

8.6. The focus on illegal raptor killing, while a serious issue, is sometimes used to suggest a systemic failure of regulation, ignoring that illegal acts are committed by individuals and are condemned by shooting organisations. Moreover, some politicians and interest groups are accused of influencing policy with emotions rather than evidence, as seen in Wales where shooting was banned on some NRW land, ignoring the NRW review recommendations (Bodkin, 2018).

8.7. The arguments for increased regulation often overlook the self-regulatory efforts within the shooting sector. This self-regulation demonstrates a commitment to addressing environmental concerns without the need for additional, potentially burdensome, legislation (Denny, 2023).

8.8. The Scottish Government's decision to pursue licensing for grouse shooting, despite recommendations from its own expert review group that emphasised a civil standard of proof

and a focus on raptor indicators "on or within the vicinity of grouse moors" (GMMRG, 2019), is seen by the GWCT as abandoning its own findings (GWCT, 2020b). This highlights a disconnect between evidence-based policy and political decisions influenced by external lobbying.

8.9. Implementing yet more regulation would undermine the findings and recommendations from other key government policies and reviews, including the Corry Review (2025), the 25 Year Environment Plan (2018), the Dartmoor Review (2023), the Wildfire Framework for England (2021) and the Climate Change Committee's 2025 report.

8.10. The Corry Review called for Defra to use proportionality, clarity and practical adaptability. It said it is time to stop relying on oversimplified ecological models that offer no flexibility for place-based management. Similarly, Natural England has disregarded the Dartmoor Review's call for a full debate on controlled burning and affording high priority to wildfire prevention by land managers. As a result, Defra's own stated role in the Wildfire Framework for England, which is to encourage sustainable land management practices that mitigate wildfire risk, is failing.

8.11. Restricting traditional cool burning conflicts with six goals of the 25 Year Environment Plan - such as clean air and water, thriving wildlife, reduced environmental hazards, and mitigating climate change - by inevitably increasing the risk of more severe wildfires that cause far greater damage and carbon emissions than managed burns.

Question: What measurable outcomes are those proposing greater regulation trying to achieve, and why do they feel the extensive existing regulation can't achieve them?

9. Wider Wildlife Benefits

9.1. Beyond direct benefits to red grouse and the threatened upland bird species commonly associated with moorland, management for driven grouse shooting supports a wider range of wildlife, contributing to overall biodiversity (GWCT, 2016). This is largely due to the combination of predator control, habitat management and disease management (Newey et al., 2016; Thompson et al., 2016; Mustin et al., 2018; Littlewood et al., 2019).

9.2. The mosaic of different age classes and vegetation compositions of heather and other vegetation, created by practices like controlled burning, is likely to support a richer population and diversity of invertebrates than unmanaged, homogeneous heather (Eyre et al., 2003; Buchanan et al., 2006; Sanderson et al., 2020; GMMRG, 2019). While some invertebrate groups prefer older heather, others benefit from recently burnt areas, and the overall diversity is maximized with a mosaic of habitats (Grant et al., 2012). Moorlands also support specialist invertebrate species, such as the bilberry bumblebee, which are not found elsewhere (Backshall, 2001).

9.3. Grouse moor management also contributes to disease and parasite control, benefiting various wildlife. For example, controlling ticks on managed moors reduces the health risks for wild and domesticated animals, including ground-nesting birds, which can suffer illness and death from tick-borne diseases (Sheaves et al., 1995; GWCT, 2024; Douglas et al., 2019). The legal control of generalist predators like foxes and crows, while primarily for grouse, also benefits other ground-nesting birds and mountain hares (Fletcher et al., 2010; Newey et al., 2016; Littlewood et al., 2019; Mustin et al., 2018; Patton et al., 2010; Brooker et al., 2018; Hesford et al., 2019).

9.4. Overall, the data suggests that 'grouse moors' have a biodiversity that is "at least as rich, if not richer" compared to upland areas where grouse shooting does not take place (Denny, 2023). Notably, shooting estates account for 29% of upland Sites of Special Scientific Interest (SSSI), compared to an expected 16% if distribution were random (GWCT, 2019).

9.5. Critics often argue that grouse moor management focuses too narrowly on red grouse, leading to detrimental impacts on other wildlife. This perspective is challenged by the evidence of wider biodiversity benefits. The claim that predator control on grouse moors is solely for grouse and harms other wildlife overlooks the significant benefits to ground-nesting birds and other species. The argument fails to acknowledge that generalist predators are "unnaturally abundant" on moorland (Denny, 2023) and that many conservation organisations also employ predator control (Harper, 2018). Without this control, species susceptible to predation would struggle (Baines et al., 2023).

9.6. The focus on specific perceived harms (e.g., to raptors, as discussed previously) often distracts from the broader ecological contributions. The argument that grouse moors create a "monoculture" of heather is contradicted by the emphasis on creating a "mosaic" of heather ages through rotational management, which directly benefits invertebrate and plant diversity (Eyre et al., 2003; Buchanan et al., 2006; Sanderson et al., 2020).

Question: Supporters of a ban on driven grouse shooting should be challenged to produce the evidence that their preferred alternative land uses outperform grouse moor management in biodiversity, predator and parasite control, and overall ecosystem benefit.

Annex A – Existing legislation and regulation relevant to driven grouse moor management

Wildlife Protection & Management

1. Wildlife and Countryside Act 1981
2. Conservation of Habitats and Species Regulations 2017
3. Animal Welfare Act 2006
4. Wild Mammals (Protection) Act 1996
5. Welfare of Farmed Animals (England) Regulations 2007

Land Management & Environmental Regulation

6. Environmental Protection Act 1990
7. Environmental Land Management Schemes (ELMs)
8. Countryside and Rights of Way Act 2000 (CRoW Act)
9. Agriculture Act 2020
10. Commons Act 2006
11. Wildlife and Natural Environment Act 2011
12. Protection of Badgers Act 1991
13. Hill Farming Act 1946
14. The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017
15. Natural Environment and Rural Communities (NERC) Act 2006

Heather Burning & Vegetation Management

16. Heather and Grass Burning (England) Regulations 2021
17. Heather and Grass etc. Burning (England) Regulations 2007
18. Natural England Burning Guidance (2021)
19. Plant Protection Products (Sustainable Use) Regulations 2012
20. Weeds Act 1959
21. Environmental Impact Assessment (Agriculture) Regulations 2006

Gamebird Management, Shooting, and Licences

22. Game Act 1831
23. Wildlife and Countryside Act 1981, Schedule 2
24. Natural England General Licences (GL40, GL41, GL42, GL43, GL45)
25. Animal By-Products (Enforcement) Regulations 2013
26. Welfare of Animals at the Time of Killing (England) Regulations 2015
27. Firearms Act 1968
28. Spring Traps Approval (England) Order 2018
29. Food Safety Act 1990
30. Food Hygiene Regulations 2006
31. Deer Act 1991
32. Ground Game Act 1880
33. Health and Safety at Work Act 1974

Site Designation & Planning

34. Sites of Special Scientific Interest (SSSI) Operations Requiring Consent (ORC)
35. Town and Country Planning (General Permitted Development) (England) Order 2015
36. Environmental Impact Assessment (Agriculture) Regulations 2006

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