

A response to the Scottish Animal Welfare Commission report on snaring

A paper compiled for practitioner organisations by the Game & Wildlife Conservation Trust

Introduction

Land management organisations were asked by Scottish Government in 2022 to draw up a report on the use of snares for predator control in Scotland, which was submitted last summer ('The use of snares in Scotland: an essential part of pest and predator control and wildlife conservation'). The report focused on three main aspects:

- The conservation and economic objectives behind the need for predator control
- The substantial welfare improvements to use of predator restraints, including app technology to assist checking, recording and management practice
- The management oversight introduced following the Wildlife and Natural Environment (Scotland) Act, and subsequent 5-year reviews, which has materially contributed to improvement in management practice

We acknowledge the need to absorb all perspectives on the use of traps and restraints, so the Scottish Animal Welfare Commission report of December 2022 provide a very important contribution to the discussion. We note that it calls for a ban on use of snares. It naturally focuses on welfare, so in that respect, we are pleased that there is common ground with our own report.

However, we have specific concerns with the content of the report which must be reviewed. We set out these concerns in this short paper, covering:

1. The need for urgent action to address the clear and continuing declines in biodiversity
2. Commentary on references and estimates regarding snare welfare
3. The SAWC report takes little or no account of technical improvements to trapping technology, or the benefits of policy enactments introduced by Scottish Government
4. Anomalies in snare incident reporting data contained in the SAWC report

We believe it is important that divergent views are at least considered and reconciled if we are to balance welfare concerns with equally significant requirements to manage for conservation and economic good.

1. The need for urgent action to address the clear and continuing declines in biodiversity



State of Nature Report 2019

At COP26, the Scottish Government joined other nations in endorsing the Leaders Pledge for Nature: to reverse nature loss by 2030.

Incomplete or broken ecosystems lead to imbalances and species declines. Although biodiversity loss may emanate from human-induced activity, we also have the capacity to engineer positive improvements. We should not close off any options where we can rebuild or maintain functioning ecosystems as part of nature, and this may include lethal management from time to time. We must be prepared to take brave decisions on adaptive or mitigating action. The response to biodiversity and climate emergency risks cannot simply be adequate. The Scottish Government observes that change needs to be transformative.

The SAWC report argues that human behaviour should be addressed before deployment of predator control techniques. We agree that massive food wastage is contributing to problems and an increase in predators around more densely populated areas, whilst land use changes have also influenced significant species declines. As some of our most iconic bird populations decline, the risks affecting them such as predation are amplified, which accelerate the trend.

This is particularly important because adjustment to human behaviour in the form of land use and farming practices may take years to translate into positive impact for species recovery. **We don't have the luxury of years to address concerns.** At particular risk are species including curlew, lapwing, black grouse and capercaillie, as well as keystone farmland species such as grey partridge. Scotland's curlews have declined by 60% since 1994. If the declining current trend continues for capercaillie, the species will be **extinct within two to three decades.**

Yet the GWCT's research over many years keeps indicating that the appropriate deployment of predator control can provide transformative benefit. This was outlined in the previous report submitted to Scottish Government, which cited the evidence from the Otterburn Upland Predation experiment, conducted over 8 years between 2000 and 2008. This was recently supported by a further similar study published in the European Journal of Wildlife Research (2023) 69:6 ('Lethal predator control on UK moorland is associated with high breeding success of curlew, a globally near-threatened wader.')

¹ Lethal predator control on UK moorland is associated with high breeding success of curlew, a globally near-threatened wader: David Baines, Kathy Fletcher, Nicholas Hesford, David Newborn, Michael Richardson, European Journal of Wildlife Research (2023) 69:6

grouse moors (1.05 fledglings pair-1) than non-grouse moors (0.27). Productivity of c. 0.5 fledglings pair-1 is broadly required to maintain the curlew population. The research effectively contrasts the deployment of predator control (including restraints) with no management interventions. As such, the research identifies that grouse moors appear to act as source populations, thereby slowing the current rapid decline.

Specific evidence for the role of restraints is set out in the report in appendix 1, showing that this ranges from 10% **to 81%** of all foxes managed according to location, particularly in areas where direct / free shooting is difficult to undertake because the terrain makes it impractical or unsafe to use a rifle. If land managers cannot deploy restraints in future, the impact on conservation in areas where most of the control is achieved by this method is likely to be immense for already fragile populations.

2. Commentary on references and estimates regarding snare welfare

Our previous paper submitted to Scottish Government observed that predator control should be rational, achievable, proportionate, targeted, and humane. In all these respects, there are common aims with SAWC.

Animal welfare impacts of snares

The SAWC review refers to the most widely recognised method of assessing the welfare of individual animals - the Five Domains model. This may be so, but globally, the welfare impacts of capture devices used within the context of wildlife management are assessed using a widely agreed set of criteria relating to indicators of poor welfare. These include criteria used within the Agreement on International Humane Trapping Standards (AIHTS) to which UK is a signatory, and NAWAC guidelines in New Zealand. If the 'Five Domains' model is applied to any other form of fox trap as it has been to snares, then the same answers on welfare would prevail, yet the SAWC report observes that an alternative to snares is cage traps. Not only are cage traps ineffective at catching rural foxes (GWCT research shows that < 1% of all foxes taken annually by gamekeepers are in cage traps) but they are unselective, and catch all the usual mammalian by-catch, as well as raptors (Munoz-Igualda)².

The SAWC report provides various references in respect of welfare.

Reference (15) suggests stops can prove ineffective. This identifies a paper from 2007. Stop distances on restraints used in Scotland have recently been further adjusted from 23cm to 26cm, following 5-year reviews implemented under the 2011 Wildlife and Natural Environment (Scotland) Act.

Reference (16) cites a 2009 report on badgers to indicate that snares may hold other parts of the body (than around the neck). This evidence predates the introduction and use of Humane Cable Restraints with double swivels and breakaway units. It would be instructive to compare results on incidence before and after their introduction.

Reference (17) is provided in relation to the possibility that free-running snares can become self-locking or twisting, and thus likely to cause injury or death by strangulation. The paper, from 2009, predates the introduction of modern cable restraints incorporating break-away units and effective mid-point and terminal swivels

² Evaluation of Cage-Traps and Cable Restraint Devices to Capture Red Foxes in Spain: Munoz-Igualada (2008)

Reference (19) indicates that capture of non-target species may result in death or injury. The source extrapolates an impact on non-target species from estimates that between 8,000 and 21,000 foxes are snared on Scottish Grouse Moors each year.

We would simply point out that in the 2018 Review of the population and conservation status of British mammals³, the UK fox population indicated an increase of 48% over the 1995 Technical Summary. **The Scottish population was estimated to be around 23,000 at the time of the technical summary and appeared to have shown a slight decrease over the next decade.**

We noted earlier that there is variability in the proportion of foxes controlled by snares, dependent on location. A significant amount of control is therefore made up by free shooting. The range of foxes snared in Scotland as indicated in reference (19) is barely credible on top of control by shooting. This calls into question the accuracy of figures ascribed to non-target capture.

Reference (20) comments on estimates of non-target capture at between 21 and 69%. The 2005 DEFRA report predates considerable development of codes of practice, training and focus on setting to reduce non-target capture. Much of the impetus for development of humane cable restraints and breakaway units also followed from this report.

Non-target species

The SAWC report indicates that the capture of non-target species using snares may result in their death and/or significant injury. The same issues exist for use of the alternative suggested for fox cage traps and Collarum traps, both of which are known to catch raptors, cats and badgers. An assessment of selectivity is presented in the Munoz-Igualada paper.

Methods of killing

The SAWC report suggests operators *may* attempt blunt-force trauma to kill an animal in a snare. In our experience, and to our knowledge, professional operators **do not** use blunt tools to kill foxes caught in snares. They use shotguns at close range, or rifles from a suitable distance. The report also overlooks the fact that foxes are sometimes injured and unrecovered during 'free shooting' with rifles (and shotguns). This applies to both night-shooting and day-shooting. The risk of injury from shooting is likely to increase if restraints are removed from use.

Ethical principles of wildlife management

Where lethal or non-lethal control is still considered to be needed, it must be carried out using recognised methods with the lowest overall welfare impact. The GWCT breakaway fox snare trial and the Defra snares trial, both concluded that well-designed breakaway snares, used in accordance with the Defra Code of Practice (England and Wales) pass the AIHTS welfare standards for a live-capture device for foxes. The pathology examinations in the Defra trial were carried out by Government-selected vets. No other method of fox control in the UK has been subjected to such intense scientific scrutiny. Also, Humane Cable Restraints are now widely used for wildlife management and research purposes for live-capture of wild canid species, including fox, coyote and wolf^{4, 5, 6}

³ Mathews F, Kubasiewicz LM, Gurnell J, et al (2018) A review of the population and conservation status of British mammals: technical summary

⁴ Evaluation of Cable Restraints to Live-capture Coyotes (*Canis latrans*) in Southern Ontario, Canada, Canadian Wildlife & Biology management vol 3, Garvey and Paterson, 2014

⁵ Injury Scores and Spatial Responses of Wolves Following Capture: Cable Restraints Versus Foothold Traps, Wildlife Society Bulletin, Eric Gese, 2019

⁶ Evaluation of 2 Cable Restraints with Minimum Loop Stops to Capture Coyotes, Wildlife Society Bulletin, Dwayne Etter and Jerrold Beland, 2011

Overview of welfare evidence

We do not dispute that unless properly deployed and managed, there can be significant welfare issues connected with the use of restraints. However, the concerns raised about use of snares are equally relevant to all forms of live capture devices for vertebrate species which are variously used for wildlife control purposes, research purposes, medical purposes or translocations. We must ensure professional use as far as possible, but there should be equity of assessment across these purposes.

There have also been considerable efforts to improve both restraint technology and best practice since some of the reports were written. We urge that before any decision is taken to restrict or ban as part of predator control, we take the opportunity provided by current recording techniques described in our previous paper to gain far more accurate understanding as to usage, activity, capture and non-capture rates. We propose that this should be based on full adoption of humane cable restraints and breakaways.

3. The SAWC report takes little or no account of technical improvements to trapping technology, or the benefits of policy enactments introduced by Scottish Government

Our previous report went into detail about the improvements wrought by the introduction of the Wildlife and Natural Environment (Scotland) Act and the two five-year reviews that have followed since 2011. We summarise the key changes below, now written into the relevant Scottish Code of Practice, and awaiting update in legislation:

Requirement	Action
<ul style="list-style-type: none">• Increase the stop position on fox snares to enlarge the noose size to 26cm;	<ul style="list-style-type: none">• Built into snare design & manufacture. Add further notes to best practice guidance and re-publish
<ul style="list-style-type: none">• Increase the number of swivels on fox snares to a minimum of two;	<ul style="list-style-type: none">• Built into snare design & manufacture. Add further notes to best practice guidance and re-publish

We also identified key welfare benefits offered by use of Humane Cable Restraints and Breakaway sections as follows:

Restraint component	Purpose
D-shackles	The shackles facilitate attachment / detachment from the anchor. The permanent anchor prevents the restraint being dragged away.
Fixed stop	The fixed stop is set to ensure the loop never closes beyond that point, keeping the loop size to a minimum of 26cm, preventing strangulation.
Running eye	The running eye ensures that the restraint loop is free running and not self-locking, allowing it to open and close as far as the fixed stop.
Swivels (mid-point and terminal)	The two parts of a swivel rotate independently. Inclusion in design prevents the restraint wire and loop from twisting and fouling, reducing welfare risks.
Weak link (breakaway)	A link designed to pop open under the weight of bigger and stronger animals than foxes, allowing their complete, safe release from the restraint.

We also identified in our report that data compiled to identify trends in snaring incidents appears to be on a steady downward trend since the introduction of the Wildlife and Natural Environment Act and Scottish Government approved training. The SAWC report does not comment on these aspects.

4. Anomalies in snare incident reporting data contained in the SAWC report

Finally, we note the detailed information on snaring incidents set out in the appendix to the SAWC report. Features of this do not seem to have been available to stakeholders involved in the Wildlife and Natural Environment (Scotland) Act 5-year reviews.

The latest 5 yr review report includes SSPCA information as follows:

2017-18	8		7		7	8		1
2018-19	17	1	11	7	3	13	3	4
2020-21	20	5	13	6	10	9	7	3
TOTAL	45	6	31	13	20	30	10	8

(1) This figure is the number of incidents submitted to the COPFS. The actual number of offences reported to COPFS may be higher than shown as some incidents may have breached more than one snaring offence.
 (2) Each incident may involve one or more species, including wildlife and domestic animals.

The SAWC appendix is shown below:

- Introduction
- Animal welfare impacts of snares
- Non-target species
- Methods of killing
- Ethical principles of wildlife management
- Conclusions and recommendation
- Appendix
- References

Appendix

Recent Scottish SPCA cases

The Scottish SPCA has notified SAWC that, in the last 24 months, it has dealt with 213 tagged snares found as a result of 22 separate incidents. These have included search warrants on estates as well as calls from the public reporting snared animals.

Of those snares that had tags, only 53 were found to be set legally, meaning that 75% of tagged snares were found to be set illegally (having the potential to wholly or partially suspend).

The numbers below relate to the 53 legally set and tagged snares. These numbers represent animals found when the incidents were investigated and the outcome for those animals:

- 7 were found dead on arrival
- 7 were found to be alive but 6 of those had suffered injuries
- 3 of those animals who had sustained injuries due to being snared were euthanased

If the SAWC report was concluded in the second half of 2022, some of the statistics may also comprise data from the 24 months covering summer 20 to summer 21, then summer 21 to summer 22. We accept that this is not a perfect overlap with the WANE review report, but the SAWC report sets out 22 ‘incidents’ in the 24-month period, against 20 incidents reported for 20-21 in the WANE report. The SAWC appendix suggests that the 22 *separate* incidents relate to 213 tagged snares. Logically, some of these incidents must have occurred in the WANE report period. If so, we are very concerned that no attention was drawn to the apparent illegality of the snare setting in providing data to the WANE review. If 75% of tagged snares were apparently set illegally, this should have been expressly raised and shared with stakeholders involved in the reviews. Immediate remedial or mitigating action could have been taken to address concerns. Of course, it is possible that some incidents generated the bulk of illegal setting, perhaps even one rogue location. At the least, it appears that more information could have been shared and if so, this is deeply frustrating. If the same situation has prevailed from the outset of the WANE Act, it represents a failure to collaborate in the interests of welfare. We must expect that all relevant information is shared and should be an absolute requirement during stakeholder meetings during, and in completing any future 5-year reviews.

Concluding remarks

We make no apology for repeating closing comments in our previous report submitted to Scottish Government in September 2022. Indeed, the points below seem even more relevant in the light of the SAWC report.

We stress in our main report that technical adjustments to snare restraints including safety stop positioning, double swivels and breakaway sections now considerably reduce welfare risks. Nevertheless, the sector is fully committed to ongoing research, training and continuous improvement by professional users.

We do however wish to re-emphasise that further constraints placed on predator controls intended to support ground-nesting birds, hares and livestock erode the ability to manage both for conservation and for economic reasons. Legislation, particularly in the arena of wildlife management, will be challenging, if not impossible to reverse, once enacted. The Scottish Government has rightly pointed to the need for an adaptive approach to management of our natural environment. With biodiversity so evidently in crisis, now is not the time to close off any options that might aid recovery. We undertake to work with stakeholders to ensure such options remain fully compliant with all welfare requirements whilst providing for conservation and economic good.

Practitioner organisations and their advisers have a key role to help ensure that snare practitioners in Scotland are fully up to speed with current training requirements, are registered, use the evidence of their management through accessible recording to adjust practice and can demonstrate public good through nature recovery. We are committed to this task.

Summary

- **Technical adjustments to cable restraints including safety stop positioning, double swivels and breakaway sections now considerably reduce welfare risks**
- **The Wildlife and Natural Environment (Scotland) Act 2011 has accelerated behavioural change including more selective use and siting of snares and reduction of the time during which they are deployed**
- **The Act has prompted novel use of mobile technology to improve record-keeping and use of information gathered during checks. We suggest that use of this facility is at least given fair chance to assess changes to welfare, record-keeping, and incident statistics.**
- **Significant concern regarding the conservation status of emblematic Scottish bird species means that all current, legal forms of predator control must be retained for the time being if we are to assist their recovery**
- **Data on incidents and prosecutions suggests a steady decline since changes introduced by the Wildlife and Natural Environment (Scotland) Act 2011.**
- **Nevertheless, this information can be further improved to understand and isolate problems. It would be illiberal to remove snaring without better insight and objective assessment of any concerns relative to the public good deriving from species conservation.**

Appendix 1

The role of Humane Cable Restraints in Conservation – nine case studies

It is worth highlighting the scientific justification for lethal predation management in conservation. Lethal predation management, for example fox control, is widely evidenced and accepted as essential to conserve certain species such as the Eurasian curlew (hereafter 'curlew').

Research indicates that high levels of predation are a likely cause of curlew declines 5, 6. Predation is one of the main factors limiting curlew recovery in the UK 7, 8. Foxes, corvids and mustelids have been regularly identified as predators of eggs and chicks of a range of waders 9, 10, 11, 12. Lethal predator management can be used to dramatically reduce the number of generalist predators, namely foxes and carrion crows 6, 7, 13, 14. When implemented at the landscape level, lethal control can result in local and regional predator suppression 15, 16, 17, 18. Lethal control has been shown to be effective at increasing breeding productivity of several wader species above the level required for stable populations in different countries and situations 6, 13, 14, 19, 20.

It is important to note that the only proven cases of population recoveries of threatened Priority species on privately owned land (i.e., not nature reserves) have come from conservation projects where predation management included humane cable restraints (HCR). Please note that the term HCR is not universally used in this section as some data refers to pre-HCR design. It is also important to recognise that the above refers to privately owned land as some nature reserves can erect predator proof fences to protect and recover colonial nesting species such as lapwing. However, there are no examples, on-reserve or otherwise, of any population recoveries of curlew without cable restraints being used.

The below case studies demonstrate the role of cable restraints in conservation of Section 7 Priority species:

GWCT's Upland Predation Experiment at Otterburn⁶

This experiment, known as a replicated, randomised removal experiment was designed to determine the impact of predation management on ground nesting birds on and around moorland in the North of England.

Key findings were:

- The percentage of lapwing fledging young went from 19% when no predators were controlled to 57% when predators were controlled
- The percentage of golden plover fledging young went from 18% when no predators were controlled to 75% when predators were controlled
- The percentage of curlew fledging young went from 15% when no predators were controlled to 51% when predators were controlled
- Red grouse increased two-fold when predators were controlled

- Grey partridge increased two-fold when predators were controlled
- Black grouse increased six-fold when predators were controlled

NB - In this study **26%** of the foxes controlled were first caught in cable restraints before being humanely dispatched. (K. Fletcher, Game & Wildlife Conservation Trust, unpublished data).

NB - Please note lapwing, curlew, grey partridge and black grouse are all species of conservation concern.

Joint Raptor Study²⁰ & Langholm Moor Demonstration Project²²

After the Joint Raptor Study at Langholm (1992 -97) ceased and predation management ceased it was noted that Red Grouse and Hen Harrier numbers decreased. The Langholm Moor Demonstration Project (2008 – 18) was set up to reinstate moorland management and predation management to measure the impact and was a partnership between Buccleuch Estates, Scottish Natural Heritage, Game & Wildlife Conservation Trust, the Royal Society for the Protection of Birds and Natural England

Key findings were:

- The percentage of hen harrier fledging young went from 39% when no predators were controlled to 79% when predators were controlled
- Curlew increased on average by 10% per annum
- Red grouse increased by 8% per annum
- Golden Plover increased on average by 16% per annum

NB - In this study **21%** of the foxes controlled were first caught in cable restraints before being humanely dispatched 23.

NB - Please note hen harrier is a species of conservation concern.

Curlew breeding success in relation to grouse moor proximity: estimating abundance and breeding success using behavioural data

In 2016 GWCT began a new three-year study to quantify curlew breeding success associated with areas where predation was managed vs areas where it was not to determine whether the results from the above Upland Predation Experiment were representative for wider moorland in the UK. This study comprised of eighteen paired sites, including a paired sites in the Berwyns, North Wales. This scientific paper is currently in the peer-review process before publication.

Key findings for the Berwyn paired sites:

- Curlew density on predation managed site was 0.61 pairs per km²
- Curlew density on the unmanaged site was 0.25 pairs per km²
- Curlew productivity on the predation managed site was 0.93 (chicks per pair)

- Curlew productivity on the unmanaged site was 0 (chicks per pair)

NB – It is widely accepted that 0.48 - 0.62 (chicks per pair) is the level of breeding productivity required to sustain curlew populations²⁵. Therefore under 0.48 chicks per pair and the population will be declining and over 0.62 chicks per pair and the population will be increasing.

NB – Data taken from D. Baines, 2022 ‘Curlew breeding success in relation to grouse moor proximity: estimating abundance and breeding success using behavioural data’ – in review.

NB – At the predation managed site **80%** of the foxes controlled were first caught in HCRs before being humanely dispatched (S. Hart, Ruabon Moor, unpublished data).

Nature Fund Berwyn, Migneint, Black Mountains & Radnor Upland Recovery Project²⁴

A collaborative Nature Fund Project between Farming and Wildlife Advisory Group, Game & Wildlife Conservation Trust and Country Land and Business Association was created to explore the feasibility of setting up and operating an upland owner-led, landscape-scale conservation project which aimed to reverse upland bird declines. The initial five-year project plan was decreased to a seven-month operational period due to funding constraints and took place between November 2014 and June 2015.

Key findings:

- Breeding bird survey data is unavailable for this project, in part due to difficulties with site access permission required from regional NRW staff, despite the project surveyors obtaining licences from NRW’s licencing team at the time.
- Due to the short nature of the project no trend data was established

NB – This project is included as the report detailed that **69%** of foxes culled were first caught in cable restraints²⁴. This statistic highlights the chosen method of control when the vegetation and terrain make night shooting particularly difficult.

Powys Moorland Partnership, Three Parishes for the Common Good Sustainable Management Schemes

These two Sustainable Management Schemes were set up to restore biodiversity and have included predation management and the use of HCRs.

Whilst the data is unpublished, the projects are useful as they give percentages of foxes caught in HCRs and estimated associated curlew productivity.

Key findings:

- Powys Moorland Partnership & Three Parishes for the Common Good report regarding the local curlew population - taken from the ‘Fifth Year Report’ (2022),

Nick Myhill

- o “The figures within these ‘constant search’ surveys suggest that numbers

have been maintained, and more extensive observations outside these surveys indicate the same, with the last year (2022) even suggesting a possible slight upturn. Given the general indication that Curlew are nearing extinction as a breeding bird in Wales, this may be a small ray of hope, but the situation remains precarious”

NB - The predation management reports from the Powys Moorland Partnership detail that **30%** of the foxes controlled were first caught in HCRs before being humanely dispatched (W. Duff Gordon, Ireland Moor, unpublished data).

NB – Please note that Ireland Moor, part of the Powys Moorland Partnership, is included as an Important Curlew Area (ICA) within the Wales Action Plan for the Recovery of Curlew²⁸.

The Camlad Valley Sustainable Management Scheme

This Sustainable Management Scheme was set up to restore biodiversity and has included predation management and the use of HCRs.

Whilst the data is unpublished, the project is useful as it gives percentages of foxes caught in HCRs and estimated associated curlew productivity.

Key findings:

- The Camlad Valley Sustainable Management Scheme estimates productivity for curlew to be in the range of 0.66 – 1.66 (J. Banks, Camlad Valley CIC, 2022 unpublished data). It is therefore likely that, if this success continues a conservative estimate would see the population achieving maintenance. Whereas before the project began productivity for the area was estimated at 0.1.

NB – It is widely accepted that 0.48 - 0.62 (chicks per pair) is the level of breeding productivity required to sustain curlew populations²⁵.

NB - In this project **24%** of the foxes controlled were first caught in HCRs before being humanely dispatched (J. Banks, Camlad Valley CIC, 2022 unpublished data).

NB – Please note that the Camlad Valley, is part of the Montgomeryshire Important Curlew Area (ICA) within the Wales Action Plan for the Recovery of Curlew²⁸.

Life Waders for Real Project²⁶

Waders for Real seeks to reverse the decline of breeding waders in the Avon Valley, a river floodplain of high biodiversity interest, part of which is designated as a Special Protection Area (SPA). Where numbers of northern lapwing pairs have fallen from 208 in 1990 to 71 in 2010. The below data is taken from a case study of Bisterne Estate from the project area.

Key findings:

- Before the project (2007 – 15) lapwing productivity averaged 0.49
- During the project (2016 – 19) lapwing productivity averaged 0.82
- During the final year of the project (2019) lapwing productivity was 1.17

NB – It is widely accepted that 0.7 (chicks per pair) is the level of breeding productivity required to sustain lapwing populations²⁷.

NB - In this case study **10%** of the foxes controlled were first caught in HCRs before being humanely dispatched (R. Brewer, Bisterne Estate, unpublished data).

Ruabon Moor, Important Curlew Area as listed in ‘A Wales Action Plan for the Recovery of Curlew’

Ruabon Moor is part of the Berwyn and South Clwyd Mountains SAC and included in the Ruabon, Llantysilio Mountains & Minera SSSI which sits within the Clwydian Range and Dee Valley AONB. It is estimated to have one of the largest remaining populations, and highest density of curlew in Wales, hence being classed as an Important Curlew Area (ICA) within the Wales Action Plan for the Recovery of Curlew²⁸. It also holds approximately 85 – 90% of the Welsh black grouse population.

Key findings:

- A conservative estimate of 1.8 productivity for curlew in the 2022 breeding season

NB – At this ICA **80%** of the foxes controlled were first caught in HCRs before being humanely dispatched (S. Hart, Ruabon Moor, unpublished data).

Brown Hare Conservation at Loddington and Royston²⁹

The above case studies have focused on ground nesting, avian species of conservation concern. It is worth noting that the brown hare, another Priority species, has declined throughout much of its UK range.

The fox is a significant predator of brown hares, and effective control of fox density leads to substantially higher hare densities, given suitable habitat²⁹.

Key Findings:

- In both studies the predation management had a significant positive effect, amounting to an approximate doubling of brown hare annual population growth rate.

NB – In the Loddington study **33%** of the foxes controlled were first caught in cable restraints before being humanely dispatched. In the Royston study **44%** of the foxes controlled were first caught in cable restraints before being humanely dispatched².

Summary of the role of Humane Cable Restraints in Conservation

The GWCT argues that HCRs are too valuable a conservation tool to lose and that the evidence provided above cements this argument. The Trust maintains that HCRs must be

made available for those needing to control foxes for conservation purposes. The above nine case studies demonstrate key conservation successes, where eight Priority species are the beneficiaries of predation management which included cable restraints operated to the CoP.

The Trust highlights that these conservation success stories, turning the tide and recovering species which are elsewhere disappearing at an alarming rate, are not easily come by and require huge conservation efforts underpinned by the ability to use all the 'tools' in the toolbox. Without the ability to use HCRs it is entirely feasible, and incredibly likely that such conservation successes would not have been achievable. The case studies above provide nine examples where fox control depended up on fox restraints to varying degrees, from 10% - 80% and averaging at **37%** of foxes controlled being first caught in a cable restraint.

Whilst night vision and thermal imaging have improved the efficiency of night shooting of foxes, barriers remain to its efficacy. Vegetation height such as heather, rushes and silage crop during the nesting season easily hide a fox and make both night vision and thermal imaging useless in key locations.

The Trust maintains that there is no other method of fox control that is as efficient or as effective as HCR in all scenarios at all times of the year.

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