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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS

Standing Committee

43rd meeting Strasbourg, 28 November - 1 December 2023

Complaint on stand-by: 2019/4

Badger Culling Policy in England (United Kingdom)

_ COMPLAINANT REPORT _

Convention on the Conservation of European Wildlife and Natural Habitats



COMPLAINT FORM - ADDITIONAL MATERIALS

This form contains additional materials relevant to the original Complaint submitted by the complainants on 24th July 2019, in relation to the UK government's badger culling policy.

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Additional materials

In relation to the complaint submitted on 24 July 2019 proposing that the UK government's badger culling policy is in breach of Articles 7, 8 and 9 of the Bern Convention, and further to the additional materials provided on 12 March 2020, 31 July 2020, 30 July 2021, and 22 July 2022, the complainants would like to draw attention to the following additional information and materials that have come to light.

Summary

- As yet, the UK government has failed to implement key aspects of the next phase of its strategy to combat bovine tuberculosis in England, published in May 2021. Critically, it has failed to develop a meaningful monitoring system to track the badger population and disease levels, or publish associated findings.
- The interpretation of data collected during the Randomised Badger Culling Trial, on which the government continues to heavily rely to justify its ongoing badger culling policy, has been brought

into question in a paper by independent scientists, a pre-print of which was published in December 2022, which government has failed to take into account.

- The government has failed to adequately consider the findings of the paper published by Langton *et al.* (2022), which examined government data from the period 2013-2019 and found no evidence to indicate that badger culling had contributed to the decline in bovine TB incidence or prevalence among cattle herds. The Langton *et al.* paper represents the largest and most extensive peer-reviewed examination of government data published to date.
- In spite of the lack of clear evidence that badger culling is 'working', it is becoming increasingly apparent that government intends to retain the option to cull badgers in and around bovine TB 'hotspot' areas by employing reactive culling in response to outbreaks in cattle, what it terms 'epidemiological culling'. In a comprehensive report published in April 2023, independent scientists and veterinarians have been highly critical of the the approaches government is likely to take in its assessments of the need for epidemiological culling.

Introduction

In England, more than 210,000 native badgers (*Meles meles*), a protected species under UK law and through its listing in Appendix 3 of the Bern Convention, have been killed under license since 2013.¹

That bovine tuberculosis (bTB), or at least the way government goes about trying to control it, is a serious problem for cattle, farmers, and the taxpayer, is not in question. In 2022, over 72,000 herd tests comprising almost 10 million individual cattle tests were performed across Great Britain, with the result that some 32,000 reactor cattle and their direct contacts were slaughtered under the compulsory test-and-slaughter programme. There were over 3,500 new herd incidents of bovine TB in 2022, and the cost to the taxpayer of testing, compensating farmers, and operating the programme, is estimated as being in excess of £500 million in England over the past 10 years. A typical TB breakdown costs a farmer on average about £14,000, in addition to the disruption to his or her herd and business.²

However, in order to justify the licenced killing of badgers, the Government should at least be able to demonstrate a substantial and predictable reduction in bTB among cattle herds. While Government ministers, their advisors, and proponents of the policy have consistently claimed that badger culling is 'working,' and in a letter dated 22 May 2023 Secretary of State for Environment, Food and Rural Affairs Therese Coffey claimed that "the badger cull has been effective in reducing bovine TB incidence in cull areas by 45% after three years of culling", evidence to substantiate these claims has been severely lacking. In addition, the vast majority of the badgers that have been killed have never been tested for bTB, making it impossible to judge the level of infection among targeted badger populations.

In May 2021, the UK Government set out the 'next phase' of its strategy to combat bovine tuberculosis in England, following a public consultation conducted in the first quarter of 2021.³ The revised strategy included. *inter alia*:

• Ceasing the issuing of new intensive badger culls after 2022;

¹ Official government statistics available at gov.co.uk

² https://www.gov.uk/government/collections/bovine-tb

³ https://www.gov.uk/government/news/government-sets-out-next-phase-of-strategy-to-combat-bovine-tuberculosis-in-england

- Considering cutting existing cull licences short after two years (down from five years) 'where supported by sufficient scientific evidence', with no option for renewal;
- Developing a monitoring system to track the badger population and disease levels to help tackle the disease, with the findings being routinely published on gov.uk;
- Accelerating other elements of the strategy, including cattle vaccination and improved testing;
- Expanding the surveillance programme to test cattle for the disease every six months throughout the High Risk Area; and
- Efforts to vaccinate more badgers against the disease.

Since this announcement, the Government has issued a number of additional cull licences:⁴

Year	Licence type	Number of licences	Badgers culled under
			licence
2021	Supplementary	21	5248
2021	New/existing	40	28439
2022	Supplementary	29	7974
2022	New/existing	40	25653
2023	Supplementary	11	
2023	Existing	18	

It is widely anticipated that as many as 29,000 additional badgers could be killed under licence during 2023.

The complainants continue to emphasise their strongly held view that the UK government's actions to date, and its intentions going forward, place it in breach of Articles 7, 8 and 9 of the Convention.

Failure to introduce meaningful monitoring systems to track badger populations

In its announcement of the 'next phase' of its strategy to combat bovine tuberculosis in England published in May 2021, government committed, *inter alia*, to 'develop a monitoring system to track the badger population and disease in badgers in former culling areas to monitor trends and publish these data'. ⁵ However, this critical process to ensure the persistence of badger populations in culled areas has not yet been implemented. Correspondence with Badger Trust indicates that government has not yet developed an associated strategy, nor has it accumulated any information.

Detailed monitoring of the impact of badger culling on populations to ensure their persistence and ability to recover post-culling should have been required elements from the commencement of the policy. Current monitoring to inform the establishment of cull numbers and ensure persistence seems to be based on reports of signs of activity at a sett level, and assumptions about the average number of badgers likely to inhabit each sett. However, changes in badger behaviour in response to culling may also result in a single individual or small number of individuals moving between setts, resulting in signs of badger activity that may not reflect the ability of a population to recover. The fact that minimum target cull numbers have been reduced

⁴ https://www.gov.uk/environment/bovine-tuberculosis

⁵https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/989616/bTB-strategy-consultation-response2021.pdf (Par 16.6)

mid-cull in a large number of instances (see below) indicates that culling may be reducing numbers to lower than anticipated levels, with potentially devastating consequences for the future viability of badger populations, and serios knock-on implications for the wider ecology.

Lack of evidence for culling efficacy

In order to justify the licenced killing of such a large number of a native species, the UK Government relies on Article 9 of the Convention which allows Parties to make exceptions from the provisions of Articles 4, 5, 6, 7, and from the prohibition of the use of the means mentioned in Article 8, provided that there is no other satisfactory solution and that the exception will not be detrimental to the survival of the population concerned, to prevent serious damage to crops, livestock, forests, fisheries, water and other forms of property. In this case, the UK Government claims that the licenced killing of badgers is necessary to control the spread of bTB in cattle.

The Government tends to rely on its interpretation of the outcomes of the Randomised Badger Culling Trial carried out between 1998-2005 and reported to Government in 2007⁶. However, an independent re-analysis of data from the Randomised Badger Culling Trial, a preprint of which was published in 2022, concludes that "there is strong evidence a controversial, expensive and disruptive programme of badger culling in England since 2013 has an inadequate and unsound scientific basis."

The government also relies on a subsequent analysis published in 2019 by scientists from its own Animal and Plant Health Agency (APHA) who examined data from the first three limited 'pilot' cull areas from 2013 to 2017. Based on extensive modelling, the authors of the 2019 study claimed to have modelled statistically significant decreases in bTB incidence rates among cattle herds within the cull zones compared to unculled areas selected for comparison. However, the authors also warned of possible biases in their results and recommended that evaluation of the effects of culling should continue.

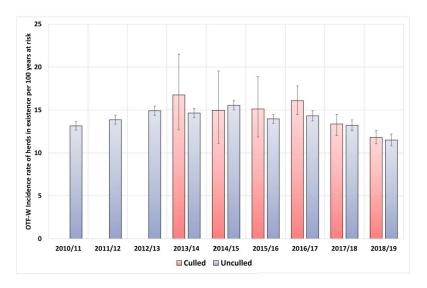
In 2021, independent researchers set about analysing the available Government data. The researchers examined published data on bTB incidence (rate of new infections) and prevalence (proportion of herds infected) among cattle herds from 2013 to 2019 and compared culled areas with unculled areas within the High-Risk Area for bTB in England for each year, employing a variety of standard statistical methodologies. Their analysis was published in March 2022 in the respected journal *Vet Record* following an extensive and robust peer review process. They reported that, while infection among cattle herds peaked and began to decline during the study period, there was no statistical evidence for any difference between the areas where badgers were being shot and the areas where there was no culling. The authors suggested that the peak and gradual decline in bTB in the High-Risk Areas could not be attributed to badger culling, instead arguing that the progressive introduction of cattle-based measures, including more intensive testing requirements and stricter movement controls, was likely responsible. The authors' conclusions are further supported by data from Wales, where a similar pattern of bTB incidence and prevalence was observed over the same period among cattle herds in the absence of badger culling.

⁶ https://www.bovinetb.info/rbct.php

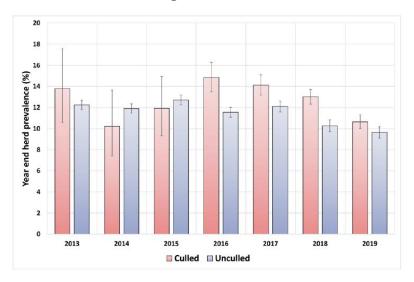
⁷ https://www.researchsquare.com/article/rs-2362912/v1

⁸ https://www.nature.com/articles/s41598-019-49957-6

⁹ https://bvajournals.onlinelibrary.wiley.com/doi/10.1002/vetr.1384



Herd incidence (OTF-W) per 100 years at risk within and outside 30 badger cull areas (From Langton *et al.* 2022)



Herd prevalence with confidence intervals within and outside 30 badger cull areas (From Langton et al. 2022)

The Langton *et al.* study represents the largest and most extensive peer-reviewed examination of government data published to date, and highlights that the current badger culling policy has been very costly and achieved very little. The authors recognise the limitations of the study, given that it examines real data from the field rather than data from a controlled trial. Nevertheless, the size of the dataset, covering as it does the first 30 cull areas to be licensed in the High-Risk Area and including more than 200,000 herd tests from literally millions of individual cattle tested, reduces the risks from confounding factors or biases. It should also be noted that the authors used the entire government dataset for the High Risk Area; no data were excluded, and no manipulation of data was conducted.

The study's conclusions received further corroboration from Paul Torgerson, Professor of Veterinary Epidemiology at the University of Zurich, in a Research Comment published in the same edition of the *Vet Record* in which he concluded "...evidence is accumulating that a low proportion of bTB infections in cattle

can be attributed to badger-to-cattle transmission. As such, reductions in bTB herd breakdown incidence are most likely to be achieved through interventions targeting cattle-to-cattle transmission." ¹⁰

This comment is further corroborated by a study from Northern Ireland published in May 2023, which conducted genome sequencing of *M.bovis* isolated from badgers and cattle over a 100km2 'hot spot' area, and concluded that the epidemiology of the epidemic in the region was primarily cattle-driven.¹¹

The UK Government's immediate response to the publication of the 2022 study was to criticize the paper and its authors. The authors were publicly accused of 'manipulating data' and working to fit the data to a 'clear campaign agenda.' In a press statement, the Government said it was 'disappointing to see it [the Langton et al. paper] published in a scientific journal', calling into question the credibility of the Vet Record and its peer-review process. 12 The Government's Chief Veterinary Officer and Chief Scientific Adviser also published a rebuttal letter claiming the Langton et al. study had 'methodological flaws' and presented a graph, which was not subject to peer review but which they claimed showed a clear reduction in cattle herd bTB incidence associated with badger culling. 13

However, in early May 2022, the authors of the study received an email from the Department for Environment Food and Rural Affairs (DEFRA) admitting that its calculations were 'inaccurate' and providing a corrected graph which was subsequently published in the *Vet Record* on 21st May 2022, and in a blog by the Chief Veterinary Officer in which the corrected graph was inserted in early June. ¹⁴, ¹⁵ The corrected graph showed no convincing or substantive differences in cattle bTB incidence between culled and unculled areas. While DEFRA apologised for its 'incorrect calculations,' its representatives continued to claim that culling badgers is a necessary element of its policy to control bTB in cattle. When asked in an interview on BBC Radio 4's 'Farming Today' Programme on 26 May 2022 why she had not changed her conclusions following publication of the corrected graph, the UK's Chief Veterinary Officer replied that "...despite that individual figure, it still comes out in the end that we believe that culling is effective, as a control measure for TB".

In correspondence with Tom Langton dated 1 July 2022, the Government legal Department (GLD) stated "The CVO and CSA have made clear their views on Mr Langton's paper in the Veterinary Record letter of 18th March 2022 and have nothing further to add on that topic." It is understood that Defra and Natural England decided in May 2022 to continue extending badger culling based upon the combination of flawed and unverified beliefs (as described above), and on as yet unpublished data being prepared by government staff. It cannot be acceptable for culling to continue on the basis of 'belief', when the most up-to-date and comprehensive peer-reviewed statistical analysis of the data fails to demonstrate efficacy.

Epidemiological culling

¹⁰ Torgerson, P.R. 2022. What is the role of badger culling as a control measure for bovine TB? Veterinary Record 190(6), 236-238. https://doi.org/10.1002/vetr.1603

¹¹ Akhmetova, A, et al. 2023. Genomic epidemiology of Mycobacterium bovis infection in sympatric badger and cattle populations in Northern Ireland. Microbial Genomics 9(5). https://doi.org/10.1099/mgen.0.001023.

¹² https://deframedia.blog.gov.uk/2022/03/18/rebuttal-of-claims-on-tb-cull-effectiveness/

¹³ Middlemiss and Henderson. 2022. Badger culling to control bovine TB. Letter to the Veterinary Record, published 19th March 2022.

¹⁴ https://doi.org/10.1002/vetr.1822

 $^{^{15}\ \}underline{\text{https://vets.blog.gov.uk/2022/06/07/cvo-comments-on-a-recent-paper-on-the-effectiveness-of-badger-culling/}$

While the UK government has indicated that 2022 will be the last year in which new areas will receive licences to cull badgers in England, it is becoming increasingly apparent that government intends to retain the option to cull badgers in and around bovine TB hot-spot areas by employing reactive culling in response to outbreaks in cattle, what it calls 'epidemiological culling'. While it claims that this will only take place in exceptional circumstances 'where epidemiological assessment indicates that it is needed', it has not made it clear what this epidemiological evidence might consist of. However, there are indications that this could result in many thousands more badgers being targeted each year in England including across parts of the 'edge' and 'low-risk' areas for bovine TB, potentially for years to come. In June 2023, Secretary of State for Environment, Food and Rural Affairs Therese Coffey was widely reported as saying "There is no fixed deadline [for ending the culling of badgers], I know some have been set out, but I'm not doing that... we will keep the culling going as one of the solutions until it [bovine TB] is gone."

In a comprehensive report published in April 2023, independent scientists and veterinarians critique the approaches government is likely to take in its assessments of the need for epidemiological culling based on trials that began in 2018, concluding that:

- a) There is no clear evidence that badgers play any significant role in the spread and maintenance of bTB in cattle herds where new bTB clusters are formed.
- b) The scientific evidence from use of Epidemiological Culling suggests it is not sufficiently robust to justify veterinary approval for any wider use.
- c) There is a continued, deep seated lack of attention to basic disease prevention measures within government animal health agencies, formed around a belief that infection from badgers negates the success of other interventions.¹⁹

We also note that, according to Defra's figures, the kill targets were reduced part-way through culling in 34 of 38 intensive cull zones 2021, and in 19 of 39 zones in 2022, indicating that not enough badgers were found in these areas. This strongly suggests that culling may be causing local extinctions and brings into serious question the methodology government is employing to ensure that badger populations are able to persist and recover following culling operations.^{20,21}

Conclusions

The UK Government's steadfast adherence to a policy that fails to achieve its objectives while devastating the population of a protected native mammal with potential knock-on effects for the broader ecology indicates the stronghold that "simple" lethal controls have on public authorities.

We believe the Langton et al. research, and the independent re-examination of data from the Randomised Badger Culling Trial, alongside additional evidence, provides a framework for reassessing the current

¹⁶https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/870414/bovine-tb-strategy-review-government-response.pdf

¹⁷ https://consult.defra.gov.uk/bovine-tb-2020/eradication-of-btb-england/supporting documents/bTBstrategyconsultationresponse2021.pdf

¹⁸ https://www.cornwalllive.com/news/cornwall-news/badger-culling-must-continue-tackle-8506952.amp

¹⁹ https://thebadgercrowd.org/wp-content/uploads/2023/05/Griffiths-et-al.-Epi-Culling-critique-April-2023.pdf

²⁰ https://www.gov.uk/government/publications/bovine-tb-summary-of-badger-control-monitoring-during-2021/summary-of-2021-badger-control-operations

²¹ https://www.gov.uk/government/publications/bovine-tb-summary-of-badger-control-monitoring-during-2022/summary-of-2022-badger-control-operations

policy. The ongoing killing of badgers is destroying healthy, protected wild creatures and disrupting the ecosystems of which they are a crucial part at a time when biodiversity is in crisis, while failing to achieve its stated objective.

We believe this places the UK Government in clear and unequivocal breach of its commitments under the Convention, and call for immediate and decisive action to bring this unnecessary killing of badgers to an end.