



Strasbourg, 17 January 2025

T-PVS/Files(2025)2019-04\_comp

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Standing Committee**

45<sup>th</sup> meeting  
Strasbourg, 8-12 December 2025

---

**Bureau of the Standing Committee**

8-10 April 2025  
Strasbourg

**Complaint on stand-by: 2019/04**

**Badger Culling Policy in England, United Kingdom**

**- REPORT BY THE COMPLAINANT -**

*Document prepared by  
The Born Free Foundation UK, The Badger Trust UK, and Eurogroup For Animals, Brussels*

---

---

## COMPLAINANTS' UPDATED REPORT

DATED 17 JANUARY 2025

---

### I. INTRODUCTION

1. The Bern Convention obliges the UK Government to protect badgers. The badger cull policy in England, however, has led to the death of over 230,000 badgers, many of which will have suffered significant pain and distress. Moreover, the incoming Labour government, in its election manifesto published in June 2024, described the policy as “*ineffective*”, a recent study published in the world’s most prestigious scientific journal, “Nature”, concluded that there is no evidence to support any beneficial effect of the policy on bovine TB in cattle<sup>1</sup>, and the authors of a recent study by government researchers admitted that ‘this data analysis cannot explicitly distinguish the effects of the Badger Control Policy’s component measure’.<sup>2</sup> For context, Natural England’s estimate in 2011 of the total pre-cull badger population in England was 190,000 and their anticipated extent of the cull was 70,000-100,000 animals.<sup>3</sup>
2. This Updated Report is filed by the Born Free Foundation, Badger Trust, and Eurogroup for Animals (the “**Complainants**”) with the Bureau pursuant to the Bureau’s Decision of 11 October 2024, in which:

*“The Bureau recalled that, at its Autumn 2023 meeting, it welcomed information that the badger culling policy continued to be phased out with no new intensive cull licenses issued after 2022...The Bureau, however, also took note of the contradicting information from the authorities that the current culling policy was still phasing out...[namely] that on 16 May 2024 Natural England re-authorized 17 existing Supplementary Badger Disease Control licences and granted nine new ones and that the new Government have indicated that existing badger culling licences would be ‘honoured’.”<sup>4</sup>*

3. In the light of this “*contradicting information from the [United Kingdom] authorities*”, the Bureau “*decided to reverse its previous decision*” and accelerated the procedural timetable “*in order to clarify the situation*”.
4. The Complainants remind the Bureau that – prior to the Bureau’s Autumn meeting at which the above Decision was reached – the Complainants requested as follows:

*“For the reasons identified in our additional materials, we believe that there is an urgent need for a moratorium on the badger culling policy.*

*In our view, it would be a clear breach of the precautionary principle under international law to allow the ongoing badger cull to continue unabated in the face of the Government’s own 2024 manifesto commitment “to end the ineffective badger cull” and the conclusion of Natural England’s own Director of Science that “Based on the evidence, I can find no*

---

<sup>1</sup> Annex 1, Complainant’s ‘Additional Materials’ of July 2024, pages 2-3.

<sup>2</sup> Birch, C.P.D et al. Difference in differences analysis evaluates the effects of the badger control policy on bovine tuberculosis in England. Sci Rep 14, 4849 (2024). <https://doi.org/10.1038/s41598-024-54062-4>

<sup>3</sup> see Annex 5, paragraphs 2 and 29

<sup>4</sup> Annex 2.

*justification for authorising supplementary badger culls in 2024 for the purpose of preventing the spread of disease and recommend against doing so.” (April 2014) We also note that that the Government itself assured the Bureau in September 2023 that “The UK Government’s current badger culling policy continues to be phased out as part of the latest changes to our adaptive bTB strategy.”*

*The precautionary principle – as articulated in Art. 11(b) of the UN World Charter on Nature – requires that “Activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed”.*

*A moratorium is a temporary measure of a procedural nature. It would not involve any pre-judgment of the merits of our Complaint, but would provide the parties with breathing-space to discuss how best to achieve the shared goal of ending the policy, whilst preserving the lives of between 4,651 and 27,509 members of a protected species under Appendix 3 of the Bern Convention.*

*With the above in mind, we would be grateful if the Bureau, at its forthcoming meeting on 10-12 September, would consider including in its decision a short procedural statement inviting and/or encouraging the Government (i) to impose an immediate moratorium on the badger culling policy; and (ii) to enter forthwith into formal dialogue with the complainants to discuss the policy.”<sup>5</sup>*

## **II. UPDATED REPORT**

5. On 1 November 2024, co-complainant Born Free Foundation wrote to the UK’s Focal Point to the Bern Convention, Mr. Simon Mackown, referring to the Bureau’s Decision and noting that:

*“The concerns raised by the Bureau regarding the “contradicting information from the authorities” will only be reinforced by the Government’s recent announcement, on 16 October 2024, that (i) it will ‘honour’ existing badger culling licences covering 20 ‘intensive cull zones’; and (shockingly) (ii) it will grant 26 ‘supplementary licenses’ (extending the culls in zones which have already completed their four years of intensive culling) as well as grant licences for two new cull zones in Low-Risk TB areas in Lincolnshire and Cumbria.*

*In short, it is obvious to all concerned that the Government’s continuation (and, now, extension) of the badger cull policy is arbitrary and contrary to the Government’s international law obligations. In particular –*

- 1. Under Article 7 of the Bern Convention, the United Kingdom is obliged “to ensure the protection of the wild fauna species specified in Appendix III”, which includes the European badger.*
- 2. Under Article 8 of the Bern Convention, the United Kingdom is obliged “in respect of the...killing of wild fauna species specified in Appendix III...[to] prohibit...the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species...”.*

---

<sup>5</sup> Annex 3.

*Article 9 of the Bern Convention only entitles a Contracting Party to make an exception from the provisions of Article 7 or 8 where “there is no other satisfactory solution and the exception will not be detrimental to the survival of the population concerned.” In circumstances where: (i) the Labour party has itself described the badger cull policy as an “ineffective” solution in its election manifesto; (ii) other solutions to the problem of Bovine TB are readily available (e.g., more accurate cattle testing, strict mandatory cattle movement controls, and comprehensive and strictly enforced on-farm biosecurity measures); and (iii) the policy is self-evidently detrimental to the survival of each and every badger population concerned, there is no credible basis – as a matter of fact or law – for the invocation of Article 9 in this case.*

3. *The ‘precautionary principle’ – as reflected, for example, in Art. 11(b) of the UN World Charter on Nature – requires that “Activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed”. In circumstances where (i) it is increasingly clear from the scientific evidence that badgers are not responsible for the spread of Bovine TB; (ii) the policy is described by the Government itself as “ineffective”; and (iii) Natural England’s own Director of Science concluded that “Based on the evidence, I can find no justification for authorising supplementary badger culls in 2024 for the purpose of preventing the spread of disease and recommend against doing so”, it is crystal clear that the Government cannot discharge the burden of proving that the expected benefits of the badger cull policy outweigh the potential damage to nature. The badger cull policy should not therefore be allowed to proceed.*

*In light of the above, and to avoid the exacerbation of the dispute, we hereby call on the Government to impose an immediate moratorium on the badger cull policy pending further consideration by the Bureau.*

*We would respectfully remind you that, as a matter of international law, the Government will be required to make “full reparation” for its breaches of international law. Full reparation, as confirmed in the Chorzów Factory case, means restitution in kind, i.e., in this case, the re-establishment of the badger populations that would have existed if the internationally wrongful act(s) had not been committed. The cost of this restitutionary exercise (to the British taxpayer) will only increase for every day that the policy is allowed to continue.*

*In light of the obvious urgency of the situation, we would be grateful for a response by 15 November 2024.”<sup>6</sup>*

6. Mr. Mackown did not respond to the above email by 15 November 2024, as requested.
7. The Complainant, therefore, wrote to Mr. Mackown again on 18 November 2024:

*“We have not received a response to the urgent and important issues raised in our email below.*

*Please confirm that the Government will accede to our request to impose an immediate moratorium on the badger cull policy pending further consideration by the Bureau or, if not, explain how the continuation (and, indeed, extension) of the policy is consistent with the Government’s international law obligations.”<sup>7</sup>*

---

<sup>6</sup> Annex 4, pages 7-9.

<sup>7</sup> Annex 4, pages 6-7.

8. On 19 November 2024, Mr. Mackown finally replied but refused to engage with the urgent and important issues raised in the Complainant's correspondence.<sup>8</sup>

9. The Complainant, therefore, replied on the same day as follows:

*"We note with disappointment your declination to engage, which we shall be drawing to the Bureau's attention. For the record, the existence of the ongoing procedure does not, in our view, preclude dialogue between the parties, especially on urgent issues that impact the lives of many thousands of animals of a protected species.*

*Since you are unwilling to address the urgent issues raised in our email outside of the formal procedure, we look forward to reading your response to these issues in your formal submission to the Bureau, which is due by 17<sup>th</sup> January. We hereby put you on notice that we will be inviting the Bureau to treat any failure to respond by the due date to be deemed an admission of the issues raised in our email."*<sup>9</sup>

10. The Bureau is respectfully invited to examine the UK Government's Progress Report of 17 January 2025 to see whether it does, in fact, respond to the urgent issues raised.

11. On 28 November 2024, the Complainant wrote again to Mr. Mackown:

*"We note that you and/or your colleagues may be attending the Bern Convention's Standing Committee Meeting in Strasbourg next week.*

*Born Free has observer status at the Convention. My colleague Adeline Lerambert will be attending the meeting, alongside Mr Zannis Mavrogordato (both copied).*

*We would be happy to arrange a time to meet to discuss our proposal of a moratorium on the badger cull policy, which would seem a sensible and uncontroversial step to agree upon in the current circumstances to avoid the continuing and unnecessary deaths of many thousands of badgers."*<sup>10</sup>

12. In response, on 28 November 2024, Mr. Mackown stated:

*"While I am the focal point for the convention, I do not have any involvement in or responsibility for badger culling policy. I am happy to listen to what you have to say on this matter, but I will not be able to comment on the policy or commit to any course of action. Those decisions lie with the bTB policy team and ultimately the Minister neither of which will be at Standing Committee."*<sup>11</sup>

13. Notably, Mr. Mackown failed to connect the Complainant to the people who did have involvement in and responsibility for the UK's badger culling policy.

14. The Complainant's representatives, therefore, approached Mr. Mackown during a coffee break at the Standing Committee Meeting in early December 2024 and requested that he put the Complainants in touch with the relevant decision-makers so that they could establish an effective

---

<sup>8</sup> Annex 4, page 6.

<sup>9</sup> Annex 4, page 5.

<sup>10</sup> Annex 4, pages 4-5.

<sup>11</sup> Annex 4, page 4.

dialogue with the UK Government to discuss the important and urgent issues raised in their recent correspondence. He undertook to do so.<sup>12</sup>

15. Two weeks later, in the absence of any update from Mr. Mackown, the Complainant sent him a reminder noting their “*disappoint[ment] that we are still in a position, as at today’s date, where no such dialogue has taken place in relation to our complaint.*”<sup>13</sup>
16. Mr. Mackown replied, on 17 December 2024, stating:

*“I asked to be provided the details of the people you wish to be put in contact with our TB team, I haven’t received this yet. Once I have these details, I will pass the information on.”*<sup>14</sup>
17. As at today’s date, a month later, the Complainant has heard nothing further.

### III. DECISIONS SOUGHT

18. It is clear and unchallenged that:
  - a. the UK Government’s continuation and extension of the badger cull policy contradicts its previous assurance to the Bureau in September 2023 that “*The UK Government’s current badger culling policy continues to be phased out ...*”;
  - b. the UK Government’s continuation and extension of the badger cull policy is arbitrary and unnecessary taking into account, in particular, (i) its own admission that the policy is “*ineffective*”; and (ii) Natural England’s own Director of Science concluding that “*Based on the evidence, I can find no justification for authorising supplementary badger culls in 2024 for the purpose of preventing the spread of disease and recommend against doing so*”;
  - c. the UK Government’s introduction, continuation and extension of the badger cull policy is in breach of its international law obligations under Articles 7 and 8 of the Bern Convention, as well as under the ‘precautionary principle’.
19. Despite the above, the UK Government has made no attempt whatsoever – in the 3 months since the Bureau’s Decision – to engage in dialogue with the Complainants to discuss the Complainants’ proposal of an interim moratorium on the badger cull policy. A moratorium is a temporary measure of a procedural nature. It would not involve any pre-judgment of the merits of the Complaint. Moreover, from a pragmatic perspective, it would enable the (slow-moving) UK Government to engage in effective dialogue with the Complainants, whilst preserving the lives of many thousands of members of a protected species under Appendix 3 of the Bern Convention. In the absence of a bold decision from the Bureau, it seems inevitable that the UK Government will continue to licence the unnecessary killing of tens of thousands of badgers, despite acknowledging that it does not know the number or condition of the current population, and contrary to its international law obligations.
20. For the above reasons, the Complainants respectfully requests the Bureau:
  - a. **to invite the relevant decision-makers in the UK Government to engage in immediate and effective dialogue with the Complainants;**

---

<sup>12</sup> Annex 4, page 1.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

- b. to urge the UK Government to observe the precautionary principle by agreeing an immediate (temporary) moratorium on the badger cull policy;**
- c. to re-open the case and elevate it to the status of a ‘possible file’.**

Respectfully submitted on behalf of Born Free Foundation, Badger Trust, and Eurogroup for Animals.

Contact: Dr. Mark Jones, Head of Policy Born Free Foundation ([markj@bornfree.org.uk](mailto:markj@bornfree.org.uk))

**IV. ANNEXES:**

[Annex 1](#): Complainant Report, submitted July 2024

[Annex 2](#): Letter from Secretary of Bern Convention, dated 11 October 2024

[Annex 3](#): email exchange from Mr Mr Mavrogordato, dated 31 August 2024.

[Annex 4](#): email exchange from Mr Simon Mackown, dated 17 December 2024

[Annex 5](#): Impact on culling of badger populations in England document, dated 4 July 2011



**Annex 1:** Complainant Report, submitted July 2024

**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.

Eoghan Kelly  
Council of Europe  
F-67075 Strasbourg Cedex

E-mail: [Eoghan.KELLY@coe.int](mailto:Eoghan.KELLY@coe.int)

[bern.convention@coe.int](mailto:bern.convention@coe.int)

First name: **Mark**

Surname(s): **Jones**

On behalf of (if applicable): **The Born Free Foundation UK, The Badger Trust UK, and Eurogroup For Animals, Brussels ('The Complainants')**

Address: **c/o Born Free Foundation, 2nd Floor, Frazer House, 14 Carfax**

Town/City: **Horsham**

Postcode: **RH12 1ER**

Country: **United Kingdom**

Tel.: **+44(0)7947749475**

E-mail: **markj@bornfree.org.uk**

Web site: **www.bornfree.org.uk**

Date : **July 2024**

Electronic Signature

## Additional materials

This document is provided 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 is further to the additional materials provided in March 2020, July 2020, July 2021, July 2022, and July 2023.

At its meeting on September 2023, the Convention's Bureau determined that *"in order to assess the impact of the Strategy finishing in 2025 in relation to the phase out of the badger culling policy, the complaint was kept on stand-by and both parties were requested to report again in three years' time, and especially to provide updated information on population estimates, the proportion of population culled and on monitoring results of the strategy."*

However, since that time significant new information has come to light which is summarised below, and which the Complainants would urge the Convention to consider as a matter of urgency.

### Summary

- On 14th March 2024, the UK government published a public consultation document, detailing proposals to introduce *"a more targeted badger control strategy focused on areas where badgers are a part of the problem in the spread of disease to cattle"*. The proposal, if adopted, would extend badger culling for an indefinite period through the issuing of culling licences in response to poorly defined 'clusters' of cattle infection, of unlimited number and size, within which badgers could be exterminated. The government provided no evidence to support the introduction of such a policy from a disease control perspective. These proposals undermine the UK government's assurance in its report to the Bureau in September 2023 that *"The UK Government's current badger culling policy continues to be phased out as part of the latest changes to our adaptive bTB strategy."*
- On 16 May 2024, Natural England re-authorised 17 existing Supplementary Badger Disease Control licences and granted nine new ones. According to data provided by DEFRA, the licences authorise the killing of between 4,651 and 27,509 additional badgers across the 26 zones during 2024. These licences were authorised in spite of advice provided to Natural England by its own Director of Science, Dr Peter Brotherton, in April 2024 (obtained under Freedom of Information) who stated that: *"Based on the evidence, I can find no justification for authorising further supplementary badger culls in 2024 for the purpose of preventing the spread of disease and recommend against doing so."*
- In its 2024 General Election manifesto, the Labour party stated that: *"... we will work with farmers and scientists on measures to eradicate Bovine TB, protecting livelihoods, so that we can end the ineffective badger cull."* However, since taking office senior figures in the Labour administration have indicated that existing badger culling licences would be 'honoured', which could potentially result in tens of thousands more badgers being killed under licence by the end of 2025.
- In July 2024, an independent study was published in the prestigious Nature journal Scientific Reports. Led by eminent veterinary epidemiologist Professor Paul Torgerson at the University of Zurich, the study re-analysed the data from the Randomised Badger Culling Trial, and concluded that the methodology in the publish paper was misdescribed. When using more suitable statistical methods and also by accounting for all cattle herds in which bovine TB was detected during the trial, there is no evidence to support any beneficial effect of badger culling on bovine TB in cattle. This new analysis undermines the UK government's central

policy evidence and its claim, made in its response to the Bureau in September 2020, that:  
*“The Randomised Badger Culling Trial provides the scientific evidence that proactive, wide-scale, sustained badger removal in areas with a high incidence of TB in cattle has a net beneficial effect in terms of reducing the level of TB in cattle relative to similar areas where badgers are not removed.”*

This new information explains the lack of benefit found in 2022 from current culls and completely undermines the justification for any further licenced culling of badgers, an Appendix III protected species under the Convention, under the exemption in article 9 of the Convention which allows interventions ‘to prevent serious damage to livestock.’ Any further licenced badger culling clearly places the UK government in breach of Articles 7, 8 and 9 of the Convention. We urge the Convention to advise the UK government accordingly, and that it should cancel all badger culling licences with immediate effect and desist from issuing further licences.

### **Introduction**

In England, more than 230,000 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 intensive and supplementary culling licences since 2013, as part of the government’s approach to controlling the spread of bovine TB in cattle.<sup>15</sup>

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 2023, over 68,000 herd tests comprising almost 10 million individual cattle tests were performed across Great Britain, with the result that some 31,135 reactor cattle and their direct contacts were slaughtered under the compulsory test-and-slaughter programme. There were over 3,100 new herd incidents of bovine TB in 2023, and the cost to the taxpayer of testing, compensating farmers, operating of the programme, and lost productivity approaches 100 million pounds per year.<sup>16</sup>

The UK government has attempted to justify the continued licencing of badger culls on the grounds that it is designed ‘to prevent serious damage to livestock’, and therefore qualifies as an exemption to the protection from over-exploitation of badgers as an Appendix III listed species, as set out under Article 9 of the Convention.

The Complainants argue that the UK government has failed to provide sufficient evidence to justify the culls on the grounds of preventing serious damage to livestock and has failed to adequately consider other solutions to the problem of bovine TB in cattle. We also argue that the UK Government has failed to adequately monitor the exploitation, the indiscriminate nature of which jeopardises the population concerned and has potential negative impacts on other species that are protected by the Convention. As such, we believe that the UK Government is in breach of Articles 7, 8 and 9 of the Convention and is acting unlawfully.

We refer to our original submission in July 2019, and subsequent additional materials, for detailed evidence of our concerns and relevant reference materials.

---

<sup>15</sup> Official government statistics available at gov.co.uk

<sup>16</sup> <https://www.gov.uk/government/statistical-data-sets/tuberculosis-tb-in-cattle-in-great-britain>

---

## Targeted badger control proposals

In May 2021, the UK government announced its intention to cease the licensing of new intensive badger culls (which normally run for four years) after 2022, as part of the next phase of its strategy to combat bovine tuberculosis in England.<sup>17</sup> The government stated in its response to the Bureau in September 2003 that “*The UK Government’s current badger culling policy continues to be phased out as part of the latest changes to our adaptive bTB strategy.*”<sup>18</sup>

However, in March 2024, the government published proposals for public consultation, in a document entitled ‘Bovine TB: future badger control policy and cattle measure proposals’.<sup>5</sup> The document includes proposals to introduce ‘targeted badger interventions’ in ‘cluster areas’ in which cattle herds become infected with bovine TB, and where badgers are deemed to be part of the problem.”

The proposals are based on a deeply flawed interpretation of a recently published government-sponsored scientific paper by Birch *et al.* (2024) highlighting significant reductions in bovine TB across existing badger cull areas, the authors of which admitted that it was not possible to determine the absolute impact of badger culling which has taken place alongside the introduction of cattle-based disease control measures.<sup>19</sup> A paper published by Langton *et al.* in the *Veterinary Record* in 2022, which directly compared bovine TB incidence and prevalence in cattle herds in badger cull areas with areas that had not culled but had been subject to the introduction of similar cattle testing and biosecurity measures, found no significant impact on bovine TB in cattle.<sup>20</sup>

The new proposals also lack detail on how ‘cluster areas’ will be identified, how large they might be, and how the role of badgers in the spread of bovine TB in such areas will be determined, relying heavily on the opinion of the government’s Chief Veterinary Officer. They are also unclear on how long culling will be allowed to continue within such areas, or whether culling operations will be required to ensure populations persist. Culling licenses will be issued directly by the Secretary of State at DEFRA, rather than by Natural England as has been the case until now, removing an additional layer of oversight and scrutiny.

Under the new proposals, so-called ‘controlled shooting’, the targeting of free roaming badgers with highpowered rifles at night, which was shown to cause significant suffering by the government’s own Independent Expert Panel<sup>21</sup> and has been opposed on welfare grounds by the British Veterinary Association, will continue to be permitted as a method of killing badgers, alongside trapping and shooting.

In proposing the new measures, the UK government has failed to demonstrate that they will prevent serious damage to livestock, and the methodology described would clearly jeopardise the population concerned since all badgers could be removed from within ‘cluster areas’. The proposals would

---

<sup>17</sup> <https://www.gov.uk/government/news/government-sets-out-next-phase-of-strategy-to-combatbovine-tuberculosis-in-england>

<sup>18</sup> <https://rm.coe.int/files33e-2023-uk-badger-culling-policy-gov-report/1680ac6517> <sup>5</sup>  
<https://www.gov.uk/government/consultations/bovine-tb-future-badger-control-policy-andcattle-measure-proposals>

<sup>19</sup> <https://www.nature.com/articles/s41598-024-54062-4>

<sup>20</sup> <https://bvajournals.onlinelibrary.wiley.com/doi/10.1002/vetr.1384>

<sup>21</sup> <https://assets.publishing.service.gov.uk/media/5a7ebd49ed915d74e33f21d5/independent-expertpanel-report.pdf>

constitute a form of ‘reactive culling’, which was trialled during the Randomised Badger Culling Trial but abandoned when bovine TB herd incidence in cattle increased in reactively culled areas – the Independent

---

Scientific Group responsible for the trial “...*advised that reactive culling could not be used to control bovine TB*”.<sup>22</sup>

A Judicial Review application (Case AC-2024-LON-002292) has been made in relation to misrepresentation of science, lack of investigation of ecological impact (to potentially Appendix I and II Bern species) and economic case deficiencies, and is awaiting the Acknowledgement of Service by DEFRA in the High Court. If successful this might move to trial over the next few months.

Nevertheless, thousands of badgers will be shot between now and November before this can come forward, should current licences be honoured.

### **Supplementary culling licences 2024**

In May 2024, Oliver Harmar, the Chief Operating Officer at Natural England, wrote to Sally Randall, Director General of Food, Biosecurity and Trade for Department for Environment, Food and Rural Affairs (Defra), confirming that Natural England had issued supplementary licences for badgers to be killed across 17 existing and 9 new zones.<sup>23</sup> According to information subsequently obtained under Freedom of Information legislation, this could result in the deaths of between 4,651 and 27,509 additional badgers across the 26 zones during 2024.<sup>24</sup>

The decision flies in the face of internal written advice from Natural England’s Director of Science Dr Peter Brotherton in April 2024, also obtained through Freedom of Information requests, stating that “...*based on the evidence, I can find no justification for authorising further supplementary badger culls in 2024 for the purpose of preventing the spread of disease and recommend against doing so.*”<sup>25</sup>

Dr Brotherton’s advice also detailed his concerns about the misinterpretation of the paper by Birch *et al.* (2024) referenced previously, which government sources have cited as evidence that badger culling had resulted in substantial reductions in bovine TB among cattle. As Dr Brotherton emphasises, the authors of the paper were careful to point out that a range of cattle-based and other measures introduced over recent years could have resulted in the reductions, and further research is needed to establish their relative impacts.

---

<sup>22</sup> <https://researchbriefings.files.parliament.uk/documents/SN03751/SN03751.pdf>

<sup>23</sup>

[https://drive.google.com/file/d/1yXUuQah2uxqOZMGzS7CN0FWRQ8HQLASf/view?usp=drive\\_link](https://drive.google.com/file/d/1yXUuQah2uxqOZMGzS7CN0FWRQ8HQLASf/view?usp=drive_link)

<sup>24</sup>

[https://drive.google.com/file/d/1tacUKvN\\_S5AvhHsJ66maPkyGrVc6CjU/view?usp=drive\\_link](https://drive.google.com/file/d/1tacUKvN_S5AvhHsJ66maPkyGrVc6CjU/view?usp=drive_link)

<sup>25</sup>

[https://drive.google.com/file/d/1VCJzCnFVqLpyjejOck5zXXTUNb8uO0E0/view?usp=drive\\_link](https://drive.google.com/file/d/1VCJzCnFVqLpyjejOck5zXXTUNb8uO0E0/view?usp=drive_link)

It is unclear why Natural England has chosen to issue these licences, in contradiction to the clear advice from its own Director of Science.

### **Labour government position**

In its 2024 general election manifesto, the Labour Party described its policy on bovine TB control as follows:

*“...we will work with farmers and scientists on measures to eradicate Bovine TB, protecting livelihoods, so that we can end the **ineffective** badger cull.”*<sup>26</sup> (emphasis added).

The incoming Labour administration has clearly and publicly described the culling of badgers as *ineffective* as a livestock disease control measure. The UK government therefore has no reason to continue

---

to issue licences for the culling of badgers, the only purpose of which is as a livestock disease control measure, and the issuing of any new licences, or the renewal of any existing licences, would fail to meet the exemption in Article 9 which permits interventions involving protected species ‘to prevent serious damage to livestock’, and would represent a serious breach of the Convention.

### **Randomised Badger Culling Trial re-analysis**

As previously indicated, the UK government has historically attempted to justify its claim that its policy of culling badgers is necessary to prevent damage to livestock, and therefore meets the exemption in Article

9, by referring to the outcome of the Randomised Badger Culling Trial (RBCT). In its response to the Bureau in September 2020, the UK government stated: *“The Randomised Badger Culling Trial provides the scientific evidence that proactive, wide-scale, sustained badger removal in areas with a high incidence of TB in cattle has a net beneficial effect in terms of reducing the level of TB in cattle relative to similar areas where badgers are not removed.”*<sup>27</sup>

The RBCT, considered the largest field experiment of its kind in history, was established to test whether killing badgers would result in a reduction of bovine TB in cattle, and followed many years of badger persecution in the name of disease control without evidence to justify it. The trial compared the incidents of cattle TB in areas where badgers were killed, with those where they weren’t. In total, some 11,000 badgers were shot during the trial. The report on the results of the RBCT, published in 2007, claimed that the proactive killing of enough badgers over a wide enough area could significantly reduce incidents of cattle TB, albeit the authors of the report advised against such a policy on the grounds that it would not be cost-effective.<sup>28</sup> In spite of this, the incoming coalition government announced in 2010 that licenced badger culling would be introduced in England.

However, a study led by eminent veterinary epidemiologist Professor Paul Torgerson at the University of Zurich, published in July 2024 in the Nature journal Scientific Reports, re-analysed the data from the RBCT, and concluded that, when using more suitable statistical methods, and accounting for all cattle

---

<sup>26</sup> <https://labour.org.uk/wp-content/uploads/2024/06/Labour-Party-manifesto-2024.pdf>

<sup>27</sup> <https://rm.coe.int/files34e-2020-uk-badger-culling-govt-report/16809e7b7b>

<sup>28</sup>

[https://drive.google.com/file/d/1IDmzlhs1UoVWfthZbi4bXNfWT\\_4zuyle/view?usp=drive\\_link](https://drive.google.com/file/d/1IDmzlhs1UoVWfthZbi4bXNfWT_4zuyle/view?usp=drive_link)<sup>16</sup> <https://www.nature.com/articles/s41598-024-67160-0>

herds in which bovine TB was detected during the trial, there was no evidence to support an effect of badger culling.<sup>16</sup>

This latest robust peer-reviewed study confirms that there is no good evidence to suggest that badgers are a significant source of bovine TB in cattle, and undermines the very basis on which the licenced culls have been carried out over the past 11 years.

### **Conclusion**

Bovine TB is devastating for cattle farmers, their herds and their businesses. However, culling badgers as a means of preventing it is ineffective as a means of preventing damage to livestock, according to the latest scientific evidence and advice, and by the admission of the new administration in the UK.

The additional information provided herein undermines the justification for any further licenced culling of badgers, an Appendix III protected species under the Convention, under the exemption in article 9 of the Convention which allows interventions ‘to prevent serious damage to livestock.’

Any further licenced badger culling clearly places the UK government in breach of Articles 7, 8 and 9 of the Convention.

---

We urge the Convention to advise the UK government that it should cancel all badger culling licences with immediate effect and desist from issuing further licences forthwith.

[Back to Annexes](#)

**Annex 2:** Letter from Secretary of Bern Convention, dated 11 October 2024

**DIRECTORATE GENERAL  
HUMAN RIGHTS AND RULE OF LAW (DGI)**

DIRECTORATE OF SOCIAL RIGHTS, HEALTH  
AND ENVIRONMENT



**Mr Simon MACKOWN**  
Head of Species Recovery and  
Reintroductions Policy  
National Biodiversity and Ivory Team  
Wildlife Division, Defra  
London, United Kingdom

Strasbourg, 11 October 2024

**Subject: Complaint No. 2019/04: Standby File: United Kingdom: Badger Culling Policy in the England**

Dear Mr MacKown,

At its third ordinary meeting of 2024 on 10-12 September, the Bureau of the Standing Committee to the Bern Convention re-examined the above-mentioned complaint in light of the most recently submitted reports by the authorities and complainant.

**Decision:** The Bureau recalled that, at its Autumn 2023 meeting, it welcomed information that the badger culling policy continued to be phased out with no new intensive cull licenses issued after 2022 and that follow-up supplementary badger culling under license would end in 2025. It also recalled in 2023 that, in order to assess the impact of the Strategy finishing in 2025 in relation to the phase out of the badger culling policy, the complaint was kept on stand-by and both parties were requested to report again in view of the Bureau meeting of Autumn 2026.

The Bureau took note of the information submitted by the complainant that on 16 May 2024 Natural England re-authorised 17 existing Supplementary Badger Disease Control licences and granted nine new ones and that, the new Government have indicated that existing badger culling licences would be 'honoured'. It also noted the complainant's request for an immediate moratorium on the badger culling policy, and that the authorities enter into formal dialogue with it to discuss the policy.

The Bureau, however, also took note of the contradicting information from the authorities that the current culling policy was still phasing out and that culling in the High Risk and Edge areas will conclude by January 2026.

Without wishing to address the merits of the case-file, the Bureau decided to reverse its previous decision and invited both parties to report back at its spring 2025 meeting in order to clarify the situation.



In that regard, I would invite the authorities of the United Kingdom to send a progress report including the above-requested information and any other relevant updates no later than 17 January 2025 to be addressed at the meeting of the Bureau at its spring meeting.

The report should be strictly kept to a maximum of 5 pages and submitted in electronic WORD format. If you will require more space or to attach photographs or other heavy media, kindly send a separate annex to the report, if possible with a link to a Cloud Drive.

The same deadline and information on reports apply to the complainant organisation for the submission of an updated report for the attention of the Bureau.

On behalf of the Bureau, I would like to thank you for your ongoing cooperation with the Bern Convention and for your work in protecting species and habitats.

Yours sincerely,



Mikaël Poutiers  
Secretary of the Bern Convention

Cc: Permanent Representation of the United Kingdom to the Council of Europe  
M. Jones Born Free Foundation (Complainant)

[Back to Annexes](#)

**Annex 3:** email exchange from Mr Mr Mavrogordato, dated 31 August 2024.

**From:** Zannis Mavrogordato   
**Subject:** Additional materials pertinent to Complaint on Stand-By 2019/04 - United Kingdom - Badger culling policy in England

**Date:** 31 August 2024 at 17:03

---

**To:** POUTIERS Mikael

**Cc:** maya pardo, bern convention bern.convention@coe.int, Mark Jones

Dear Mr. Poutiers,

I hope all's well.

We assume that the Government has not responded to your invitation to comment on our additional materials.

For the reasons identified in our additional materials, we believe that there is an urgent need for a moratorium on the badger culling policy.

In our view, it would be a clear breach of the precautionary principle under international law to allow the ongoing badger cull to continue unabated in the face of the Government's own 2024 manifesto commitment "*to end the ineffective badger cull*" and the conclusion of Natural England's own Director of Science that "*Based on the evidence, I can find no justification for authorising supplementary badger culls in 2024 for the purpose of preventing the spread of disease and recommend against doing so.*" (April 2014) We also note that that the Government itself assured the Bureau in September 2023 that "*The UK Government's current badger culling policy continues to be phased out as part of the latest changes to our adaptive bTB strategy.*"

The precautionary principle – as articulated in Art. 11(b) of the UN World Charter on Nature – requires that "*Activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed.*"

A moratorium is a temporary measure of a procedural nature. It would not involve any pre-judgment of the merits of our Complaint, but would provide the parties with breathing-space to discuss how best to achieve the shared goal of ending the policy, whilst preserving the lives of between 4,651 and 27,509 members of a protected species under Appendix 3 of the Bern Convention.

With the above in mind, we would be grateful if the Bureau, at its forthcoming meeting on 10-12 September, would consider including in its decision a short procedural statement inviting and/or encouraging the Government (i) to impose an immediate moratorium on the badger culling policy; and (ii) to enter forthwith into formal dialogue with the complainants to discuss the policy.

Best regards,

Zannis

---

**From:** POUTIERS Mikael

**Date:** Monday, 19 August 2024 at 09:05

**To:** Zannis Mavrogordato  
**Cc:** maya pardo, bern convention  
<bern.convention@coe.int>, Mark Jones  
**Subject:** RE: Additional materials pertinent to Complaint on Stand-By 2019/04 - United Kingdom  
Badger culling policy in England

Good morning.

Thank you very much for the link.

See you on Friday!

Best regards,

Mikaël Poutiers

---

**From:** Zannis Mavrogordato  
**Sent:** vendredi 16 août 2024 18:45  
**To:** POUTIERS Mikael  
**Cc:** maya pardo; bern convention <bern.convention@coe.int>; Mark Jones  
**Subject:** Additional materials pertinent to Complaint on Stand-By 2019/04 - United Kingdom -  
Badger culling policy in England

Dear Mr Poutiers,

Thank you for your email and your swift attention to this matter.

We very much welcome and look forward to the opportunity to speak with you next Friday.

I attach Zoom details below but please feel free to propose an alternative platform, if preferable –

Topic: My Meeting  
Time: Aug 23, 2024 02:00 PM Greenwich Mean Time

Join Zoom Meeting

Meeting ID:  
Passcode:

Best regards,

Zannis

---

**From:** POUTIERS Mikael  
**Date:** Friday, 16 August 2024 at 16:13  
**To:** zannis mavrogordato, Mark Jones

**Cc:** maya pardo, bern convention

[<bern.convention@coe.int>](mailto:bern.convention@coe.int)

**Subject:** RE: Additional materials pertinent to Complaint on Stand-By 2019/04 - United Kingdom Badger culling policy in England

Dear Mr Jones,  
Dear Mr Mavrogordato,

Thank you very for your e-mails.

As you rightly indicated below, the complaint No. 2019/04 - United Kingdom - Badger culling policy in England, is supposed to be re-examined only in 2026 further to the decision taken by the Bureau in September last year.

I nevertheless take note of the new developments you describe in your contribution sent on 31 July. The issue will be added to the agenda of the Bureau meeting which is scheduled to take place on 10-12 September. However, we won't have the time to prepare any draft decision for the Bureau on the content but we can ask it to reconsider the deadline set initially last year and have the issue dealt with for the March 2025 meeting.

I will of course send your contribution to the British authorities for their information and a possible initial reaction.

Finally, I am not available on Monday for even a short call but would be on Friday 23 August, 3.00pm CEST should you still consider this to be needed. Please tell me.

Best regards,

Mikaël Poutiers

**Mikaël POUTIERS**

Secretary of the Bern Convention on the Conservation of  
European Wildlife and Natural  
Habitats /

*Secrétaire de la Convention de Berne relative à la  
conservation de la vie sauvage et du milieu naturel de  
l'Europe*

Department Reykjavik Process and Environment /  
*Service du Processus de Reykjavík et Environnement*

Directorate of Social Rights, Health and Environment /  
*Direction des droits sociaux, de la santé et de  
l'environnement*



*l'environnement*



Council of Europe / *Conseil de  
l'Europe* F-67075 Strasbourg Cedex

[www.coe.int/biodiversity](http://www.coe.int/biodiversity)

[www.coe.int/socialrights-health-environment](http://www.coe.int/socialrights-health-environment)

---

**From:** Zannis Mavrogordato  
**Sent:** vendredi 16 août 2024 16:14  
**To:** bern convention <[bern.convention@coe.int](mailto:bern.convention@coe.int)>  
**Cc:** POUTIERS Mikael; Mark Jones; maya pardo  
**Subject:** Additional materials pertinent to Complaint on Stand-By 2019/04 - United Kingdom - Badger culling policy in England

Dear Secretariat,

With thanks to Mark, it is a pleasure to be involved in this important Complaint. I would be grateful if you could also copy Maya Pardo, in cc, who will be working alongside me.

As a first step, would it be possible to arrange a short call to discuss the current status, and possible future evolution, of the Complaint (e.g., next Monday or Friday at 3pm your time)?

Thank you in advance and we look forward to working with you.

Best regards,  
Zannis

---

**From:** Mark Jones  
**Date:** Friday, 16 August 2024 at 14:00  
**To:** bern convention <[bern.convention@coe.int](mailto:bern.convention@coe.int)>, POUTIERS Mikael  
**Cc:** Zannis Mavrogordato  
**Subject:** RE: Additional materials pertinent to Complaint on Stand-By 2019/04 - United Kingdom Badger culling policy in England

Dear Secretariat,

In relation to the Complaint on Stand-By 2019/04 - United Kingdom - Badger culling policy in England – I am writing on behalf of the complainants to inform you that we have authorised London-based barrister Mr Zannis Mavrogordato (copied) to communicate with you on our behalf in relation to our Complaint.

Thank you in anticipation of your full cooperation with Mr Mavrogordato. If you could keep me copied into any communication relating to the Complaint I would be most grateful.

Sincerely

Mark Jones

**Dr Mark Jones, veterinarian**

**Head of Policy**

[bornfree.org.uk](http://bornfree.org.uk)



---

**From:** bern convention <[bern.convention@coe.int](mailto:bern.convention@coe.int)>  
**Sent:** Wednesday, July 31, 2024 2:39 PM  
**To:** Mark Jones  
**Cc:** bern convention <[bern.convention@coe.int](mailto:bern.convention@coe.int)>; POUTIERS Mikael  
**Subject:** RE: Additional materials pertinent to Complaint on Stand-By 2019/04 - United Kingdom - Badger culling policy in England

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Afternoon Mr Jones,

Thank you for your correspondence. Please accept this email as acknowledgement of our receipt of the additional information you have provided on “Badger Culling Policy in England, 2019/04”.

Thanks and kind regards,

Secretariat of the Bern Convention



Bern Convention / Convention de Berne  
Council of Europe / Conseil de l'Europe  
Avenue de l'Europe  
F-67075 Strasbourg Cedex, France

**Email:** [bern.convention@coe.int](mailto:bern.convention@coe.int)  
**Webpage:** [www.coe.int/bernconvention](http://www.coe.int/bernconvention)

---

**From:** Mark Jones  
**Sent:** mercredi 31 juillet 2024 10:58  
**To:** bern convention <[bern.convention@coe.int](mailto:bern.convention@coe.int)>; KELLY Eoghan  
**Subject:** Additional materials pertinent to Complaint on Stand-By 2019/04 - United Kingdom - Badger culling policy in England

Dear Bern Secretariat,

I am writing to provide additional information pertinent to the complaint on stand-by submitted to the Convention by the Born Free Foundation, the Badger Trust, and Eurogroup for Animals in 2019, relating to badger culling policy in England.

At the Bureau meeting in September 2023, following the submission of additional materials by the complainants and the response received from the UK government, the Bureau concluded that in order to assess the impact of the badger culling strategy finishing in 2025 in relation to the phase out of the badger culling policy, the complaint was kept on stand-by and both parties were requested to report again in three years' time, and especially to provide updated information on population estimates, the proportion of population culled and on monitoring results of the strategy.

However, additional information has since come to light, including government proposals to extend badger culling indefinitely which are currently under consideration by the new government elected in July 2024, which itself described the culling of badgers as 'ineffective'. Supplementary culls have been authorised and are currently ongoing, against the advice of the licencing authority's Director of Science. In addition, a new scientific analysis has been published which undermines the results and conclusions of the Randomised Badger Culling Trial which has thus far formed the basis on which the UK government has justified the culling of badgers in order to control disease in cattle.

I am therefore submitting the attached additional materials on behalf of the complainants and urge that they be considered by the Convention as a matter of urgency.

Thank you for your attention to this matter, If you could acknowledge receipt of the materials I would be grateful.

Sincerely,

Mark Jones

**Dr Mark Jones, veterinarian**

## Head of Policy

[bornfree.org.uk](http://bornfree.org.uk)



[Back to Annexes](#)

**Annex 4:** email exchange from Mr Simon Mackown, dated 17 December 2024

**From:** Mackown, Simon  
**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England  
**Date:** 17 December 2024 at 07:05  
**To:** Mark Jones  
**Cc:** zannis mavrogordato, Adeline Lerambert

SM

---

Mark,

I asked to be provided the details of the people you wish to be put in contact with our TB team, I haven't received this yet. Once I have these details, I will pass the information on.

Simon

---

**From:** Mark Jones  
**Sent:** 16 December 2024 16:54  
**To:** Mackown, Simon  
**Cc:** Sarah Scott; ukdelstrasbourg@fcdo.gov.uk; zannis mavrogordato; Adeline Lerambert  
**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

Dear Mr Mackown,

I understand that my colleagues spoke with you briefly during a coffee break at the Standing Committee Meeting the week before last. Since you indicated in previous correspondence that you have no involvement in or responsibility for the issues underlying our complaint, they asked if you could kindly put us in touch with the relevant decision-makers so that we can establish an effective dialogue with the UK Government to discuss the important and urgent issues raised in our recent correspondence. I understand that you undertook to put us in touch with the relevant decision-makers, subject to clearing certain internal security procedures. We look forward to hearing from you in this regard. It is, obviously, disappointing that we are still in a position, as at today's date, where no such dialogue has taken place in relation to our complaint.

Sincerely,

Mark Jones

**Dr Mark Jones, veterinarian**

**Head of Policy**

**Born Free Foundation**

[bornfree.org.uk](http://bornfree.org.uk)





---

**From:** Mackown, Simon  
**Sent:** 29 November 2024 12:15  
**To:** Mark Jones  
**Cc:** Sarah Scott (Guest); [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); zannis mavrogordato; Adeline Lerambert  
**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark,

I'll have to confirm nearer the time whether I am free; my availability will depend on how negotiations progress and/or other work priorities I may have to attend to during the day.

In response to your final comment, while I am aware of your views, the UK does not accept that is in breach of its obligations. This is a position supported by the fact that, despite ongoing scrutiny by the Bureau, no case file has been opened against the UK.

Simon

---

**From:** Mark Jones  
**Sent:** 29 November 2024 11:58  
**To:** Mackown, Simon  
**Cc:** Sarah Scott; [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); zannis mavrogordato; Adeline Lerambert  
**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

Dear Mr Mackown,

Further to my email yesterday, my colleagues Adeline Lerambert and Zannis Mavrogordato propose meeting you for coffee at 13:30 next Wednesday in Strasbourg, if that works for you? Alternatively, please feel free to propose any other time next Wednesday that is more convenient for you.

With respect to our concerns relating to our complaint, I would like to point out that the recent engagement we have had with DEFRA officials on bovine TB policy has thus far consisted of a

single virtual meeting on 3<sup>rd</sup> October, organised with the Wildlife and Countryside Link coalition of which we are a member. DEFRA's lead at the meeting was Tom Handley who was accompanied by a number of colleagues from the Department and from APHA. When we asked DEFRA to address the issues raised in our complaint, they refused to do so.

We are therefore no further forward in terms of the UK government's ongoing breach of its commitments under the Bern Convention, and we would welcome your input on how we can establish an effective dialogue with the relevant decision-makers mentioned in your email regarding the important and urgent issues raised in our mentioned in your email regarding the important and urgent issues raised in our recent correspondence.

I trust this clarifies the current situation.

Sincerely

Mark Jones

**Dr Mark Jones, veterinarian**

## Head of Policy

**Born Free Foundation**

[bornfree.org.uk](http://bornfree.org.uk)



---

**From:** Mark Jones

**Sent:** 28 November 2024 09:26

**To:** Mackown, Simon

**Cc:** Sarah Scott (Guest); [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); zannis mavrogordato; Adeline Lerambert

**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

Many thanks Simon,

I appreciate that you don't have any direct involvement or responsibility for badger culling policy. We have an ongoing dialogue with officials at DEFRA and its agencies responsible for the policy's formulation and implementation.

Nevertheless, hopefully my colleagues who will be attending the meeting next week will have an opportunity to meet you so we can at least articulate the rationale for our complaint, and why we consider it necessary to bring our concerns to the table at the Convention.

Best wishes

Mark

**Dr Mark Jones, veterinarian**

## Head of Policy

**Born Free Foundation**

[bornfree.org.uk](http://bornfree.org.uk)



---

**From:** Mackown, Simon

**Sent:** 28 November 2024 09:17

**To:** Mark Jones

**Cc:** Sarah Scott; [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); zannis mavrogordato; Adeline Lerambert

**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark,

While I am the focal point for the convention, I do not have any involvement in or responsibility for badger culling policy. I am happy to listen to what you have to say on this matter, but I will not be able to comment on the policy or commit to any course of action. Those decisions lie with the bTB policy team and ultimately the Minister neither of which will be at Standing Committee.

Simon

Simon Mackown

Head of Species Recovery | National Biodiversity Division | Defra

---

**From:** Mark Jones  
**Sent:** 28 November 2024 09:04  
**To:** Mackown, Simon  
**Cc:** Sarah Scott (Guest) [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); zannis mavrogordato; Adeline Lerambert  
**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

You don't often get email from [Learn why this is important](#)

Dear Mr MacKown,

We note that you and/or your colleagues may be attending the Bern Convention's Standing Committee Meeting in Strasbourg next week.

Born Free has observer status at the Convention. My colleague Adeline Lerambert will be attending the meeting, alongside Mr Zannis Mavrogordato (both copied).

We would be happy to arrange a time to meet to discuss our proposal of a moratorium on the badger cull policy, which would seem a sensible and uncontroversial step to agree upon in the current circumstances to avoid the continuing and unnecessary deaths of many thousands of badgers.

I look forward to hearing from you.

Sincerely,

Mark Jones

**Dr Mark Jones, veterinarian**

**Head of Policy**

**Born Free Foundation**

[bornfree.org.uk](http://bornfree.org.uk)



---

**From:** Mark Jones

**Sent:** 19 November 2024 16:06

**To:** Mackown, Simon

**Cc:** Sarah Scott (Guest) [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); zannis mavrogordato

**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

Dear Mr. Mackown,

We note with disappointment your declination to engage, which we shall be drawing to the Bureau's attention. For the record, the existence of the ongoing procedure does not, in our view, preclude dialogue between the parties, especially on urgent issues that impact the lives of many thousands of animals of a protected species.

Since you are unwilling to address the urgent issues raised in our email outside of the formal procedure, we look forward to reading your response to these issues in your formal submission to the Bureau, which is due by 17<sup>th</sup> January. We hereby put you on notice that we will be inviting the Bureau to treat any failure to respond by the due date to be deemed an admission of the issues raised in our email.

Yours sincerely,

Mark Jones

**Dr Mark Jones, veterinarian**

**Head of Policy**

**Born Free Foundation**

[bornfree.org.uk](http://bornfree.org.uk)



---

**From:** Mackown, Simon  
**Sent:** 19 November 2024 06:29  
**To:** Mark Jones  
**Cc:** Sarah Scott (Guest) [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); zannis mavrogordato  
**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dr Jones,

Regarding the Bern Convention case file *2019/04: Badger Culling Policy in England*, the UK provided its last substantive response to the Bureau in 2023. At the time, the Bureau decided to keep this case on stand-by and requested a further update in 2026. Subsequently, while the case file remains on stand-by, the Bureau has requested that the 2026 update is brought forward to 2025. To meet this request, the UK will provide a further response to the Bureau. It would not be appropriate to comment further while the case-file procedure is ongoing.

Simon Mackown

Head of Species Recovery | National Biodiversity Division | Defra

---

**From:** Mark Jones  
**Sent:** 18 November 2024 18:21  
**To:** Mackown, Simon  
**Cc:** Sarah Scott (Guest); [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); zannis mavrogordato;  
**Subject:** Re: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

You don't often get email from [Learn why this is important](#)  
Dear Mr MacKown,

We have not received a response to the urgent and important issues raised in our email below.

Please confirm that the Government will accede to our request to impose an immediate moratorium on the badger cull policy pending further consideration by the Bureau or, if not,

explain how the continuation (and, indeed, extension) of the policy is consistent with the Government's international law obligations.

Yours sincerely,

Mark Jones

**Dr Mark Jones, veterinarian**

## Head of Policy

**Born Free Foundation**

[bornfree.org.uk](http://bornfree.org.uk)

---

**From:** Mark Jones

**Sent:** Friday, November 1, 2024 1:42:24 PM

**To:** Mackown, Simon

**Cc:** Sarah Scott (Guest); [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); zannis mavrogordato

**Subject:** RE: Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

Dear Mr. MacKown,

We refer to the Bern Bureau's Decision of 11 October 2024. In its decision –

*“The Bureau recalled that, at its Autumn 2023 meeting, it welcomed information that the badger culling policy continued to be phased out with no new intensive cull licenses issued after 2022...The Bureau, however, also took note of the contradicting information from the authorities that the current culling policy was still phasing out...*

*[namely] that on 16 May 2024 Natural England re-authorized 17 existing Supplementary Badger Disease Control licences and granted nine new ones and that the new Government have indicated that existing badger culling licences would be ‘honoured’.”*

In light of this “*contradicting information from the authorities*”, the Bureau has “*decided to reverse its previous decision*” and has accelerated the procedural timetable “*in order to clarify the situation*”.

The concerns raised by the Bureau regarding the “*contradicting information from the authorities*” will only be reinforced by the Government's recent announcement, on 16 October 2024, that (i) it will ‘honour’ existing badger culling licences covering 20 ‘intensive cull zones’; and (shockingly) (ii) it will grant 26 ‘supplementary licenses’ (extending the culls in zones which have already completed their four years of intensive culling) as well as grant licences for two new cull zones in Low-Risk TB areas in Lincolnshire and Cumbria.

In short, it is obvious to all concerned that the Government's continuation (and, now, extension) of the badger cull policy is arbitrary and contrary to the Government's international law obligations. In particular –

1. Under Article 7 of the Bern Convention, the United Kingdom is obliged “*to ensure the protection of the wild fauna species specified in Appendix III*”, which includes the European badger.
2. Under Article 8 of the Bern Convention, the United Kingdom is obliged “*in respect of the...killing of wild fauna species specified in Appendix III... [to] prohibit...the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species...*”.

Article 9 of the Bern Convention only entitles a Contracting Party to make an exception from the provisions of Article 7 or 8 where “*there is no other satisfactory solution and the exception will not be detrimental to the survival of the population concerned.*” In circumstances where: (i) the Labour party has itself described the badger cull policy as an “*ineffective*” solution in its election manifesto; (ii) other solutions to the problem of Bovine TB are readily available (e.g., more accurate cattle testing, strict mandatory cattle movement controls, and comprehensive and strictly enforced on-farm biosecurity measures); and (iii) the policy is selfevidently detrimental to the survival of each and every badger population concerned, there is no credible basis – as a matter of fact or law – for the invocation of Article 9 in this case.

3. The ‘precautionary principle’ – as reflected, for example, in Art. 11(b) of the UN World Charter on Nature – requires that “*Activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed*”. In circumstances where (i) it is increasingly clear from the scientific evidence that badgers are not responsible for the spread of Bovine TB; (ii) the policy is described by the Government itself as “*ineffective*”; and (iii) Natural England’s own Director of Science concluded that “*Based on the evidence, I can find no justification for authorising supplementary badger culls in 2024 for the purpose of preventing the spread of disease and recommend against doing so*”, it is crystal clear that the Government cannot discharge the burden of proving that the expected benefits of the badger cull policy outweigh the potential damage to nature. The badger cull policy should not therefore be allowed to proceed.

In light of the above, and to avoid the exacerbation of the dispute, we hereby call on the Government to impose **an immediate moratorium on the badger cull policy** pending further consideration by the Bureau.

We would respectfully remind you that, as a matter of international law, the Government will be required to make “*full reparation*” for its breaches of international law. Full reparation, as confirmed in the Chorzów Factory case, means restitution in kind, i.e., in this case, the re-establishment of the badger means restitution in kind, i.e., in this case, the re-establishment of the badger populations that would have existed if the internationally wrongful act(s) had not been committed. The cost of this restitutionary exercise (to the British taxpayer) will only increase for every day that the policy is allowed to continue.

In light of the obvious urgency of the situation, we would be grateful for a response by 15 November 2024.

Yours sincerely,

Mark Jones



**Dr Mark Jones, veterinarian**

## Head of Policy

**Born Free Foundation**

[bornfree.org.uk](http://bornfree.org.uk)



---

**From:** bern convention <[bern.convention@coe.int](mailto:bern.convention@coe.int)> **Sent:** 11 October 2024 21:56  
**To:** Mackown, Simon  
**Cc:** Mark Jones ; Sarah Scott (Guest) ; [ukdelstrasbourg@fcdo.gov.uk](mailto:ukdelstrasbourg@fcdo.gov.uk); POUTIERS Mikael  
**Subject:** Bern Convention Bureau September 2024 - Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr MacKown,

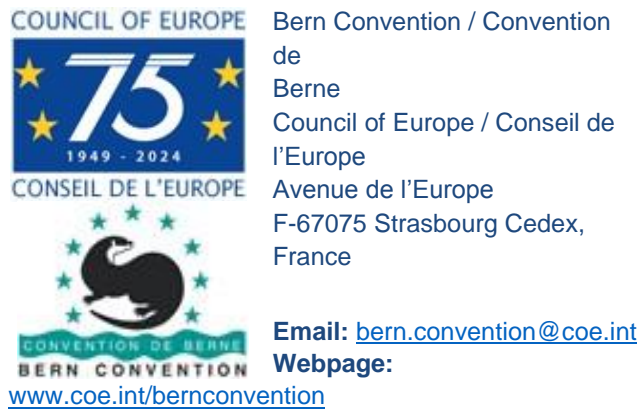
Please find attached a letter from the Bern Convention Secretariat concerning the decision of the Bureau meeting held on 10-12 September 2024 on the following complaint:

**Complaint No. 2019/04: United Kingdom: Badger Culling Policy in England**

The Secretariat remains at your disposal for any further information.

Best regards,

Secretariat of the Bern Convention



Department for Environment, Food and Rural Affairs (Defra) This email and any attachments is intended for the named recipient only. If you have received it in error you have no authority to use, disclose, store or copy any of its contents and you should destroy it and inform the sender. Whilst this email and associated attachments will have been checked for known viruses whilst within Defra systems we can accept no responsibility once it has left our systems. Communications on Defra's computer systems may be monitored and/or recorded to secure the effective operation of the system and for other lawful purposes.

Department for Environment, Food and Rural Affairs (Defra) This email and any attachments is intended for the named recipient only. If you have received it in error you have no authority to use, disclose, store or copy any of its contents and you should destroy it and inform the sender. Whilst this email and associated attachments will have been checked for known viruses whilst within Defra systems we can accept no responsibility once it has left our systems. Communications on Defra's computer systems may be monitored and/or recorded to secure the effective operation of the system and for other lawful purposes.

Department for Environment, Food and Rural Affairs (Defra) This email and any attachments is intended for the named recipient only. If you have received it in error you have no authority to use, disclose, store or copy any of its contents and you should destroy it and inform the sender. Whilst this email and associated attachments will have been checked for known viruses whilst within Defra systems we can accept no responsibility once it has left our systems. Communications on Defra's computer systems may be monitored and/or recorded to secure the effective operation of the system and for other lawful purposes.

Department for Environment, Food and Rural Affairs (Defra) This email and any attachments is intended for the named recipient only. If you have received it in error you have no authority to use, disclose, store or copy any of its contents and you should destroy it and inform the sender. Whilst this email and associated attachments will have been checked for known viruses whilst within Defra systems we can accept no responsibility once it has left our systems. Communications on Defra's computer systems may be monitored and/or recorded to secure the effective operation of the system and for other lawful purposes.

[Back to Annexes](#)

**Annex 5:** Impact on culling of badger populations in England document, dated 4 July 2011

## **The impact of culling on badger (*Meles meles*) populations in England and measures to prevent their 'local disappearance' from culled areas**

*Supplementary advice<sup>1</sup> provided under the Protection of Badgers Act 1992 and Wildlife & Countryside Act 1981 (as amended)*

4 July 2011<sup>2</sup>

1. Pursuant to section 10(6) of the Protection of Badgers Act 1992 and section 16(10)(b) of the Wildlife and Countryside Act 1981 (as amended), Natural England offers the Secretary of State the following additional advice regarding
  - the impact of badger culling to prevent the spread of the disease bovine tuberculosis (TB) in cattle on the conservation status of the badger in England and
  - measures to minimise the risk of 'local disappearance' of badgers from culled areas and non-compliance with the Bern Convention.

### **Summary**

2. To provide advice on the potential consequences of the proposed badger control policy<sup>3</sup> on the badger population in England (estimated at 190,000 badgers), and UK obligations under the Bern Convention, culling at a range of scales was evaluated.
3. The maximum geographical extent of culling under the policy is at least 31,000 km<sup>2</sup> and up to 39,000 km<sup>2</sup> (approx. 25 - 30% of England). Within this area a total of 10 licences, each with a minimum area of 150 km<sup>2</sup> but no maximum size, may be issued each year. The potential number of concurrent control licences, assuming the duration is the minimum of four years, would be 40. Natural England is required by law to issue licences for all applications satisfying licensing criteria in a timely fashion.
4. Our analysis concludes that it is unlikely that the survival of the badger nationally would be jeopardised by culling but the local disappearance of the badger in some areas cannot be ruled out if culling is carried out at a large scale. In the event that only a handful of licenses are issued, there is unlikely to be any threat to conservation status and little risk of local extinction, except where a license is granted for the entirety of an isolated population.
5. Using values published by the Independent Scientific Group from the Randomised Badger Culling Trial (RBCT) the number of badgers that will be killed in an average-sized control area (350 km<sup>2</sup>) is expected to range from 965 - 1379 in the first year and 2300 - 3300 over the full 4 years (lower estimates assume the minimum requirement of 70% access and upper limits assume 100% access for control).
6. The Chief Scientific Adviser of the Department for Environment, Food and Rural Affairs (Defra), Professor Robert Watson, and a group of scientific experts have concluded that to have a significant impact on national disease incidence, culling would need to be conducted over a 'very large area'. We have been advised by Defra that this is not the aim of the policy<sup>4</sup>, but it is consistent with our evaluation of current agricultural industry aspirations to tackle TB through badger control. Farmer groups are already developing cull applications covering at least 10,954 km<sup>2</sup>, although how many applications will actually be submitted and licences issued is unknown at this stage.

---

<sup>1</sup> This advice is a supplement to advice provided in January 2011

<sup>2</sup> The first version of this advice was submitted to Defra in draft form on 12 May 2011

<sup>3</sup> As set out in the current draft Policy Guidance for licensing, version 20110628, itself based on proposals announced on 15 September 2010 and set out 'Bovine Tuberculosis: the Government's approach to tackling the disease and consultation on a badger control policy' (Ref 35/10).

<sup>4</sup> At present, the intention that control makes only a local, and not national contribution to disease control is not clear in either the Policy Guidance or the *Bovine TB Eradication Programme for England* (version 20 June 2011)

7. If culling takes place on the scale proposed in industry preparations then there is a realistic prospect of significantly reducing badger populations in areas of the English south-west and west Midlands. The estimated national population could be reduced by up to 30% and the population in the west and south-west regions by up to 50% (NB this would account for about one-third of the total eligible control area).
8. If implemented on a large scale (e.g. as envisaged by industry or if the policy becomes one to tackle TB prevalence nationally) it is our opinion that culling poses a significant risk of contravening Articles 8 and 9 of the Bern Convention. We therefore support the government's plan to seek clarification from the Convention's Secretariat on interpretation of obligations (including defining 'local' in the context of English badger populations).
9. There are also risks, as yet unquantified, associated with those components of the policy that deviate from the evidence base provided by the RBCT, including:
  - a. the use of two rather than one culling method (including one untested method),
  - b. the increased geographical scale over which culling will take place (size of each control area: RBCT = 113 km<sup>2</sup> vs. expected average of 350km<sup>2</sup> (max. ~1400km<sup>2</sup>); total area: RBCT = 1130 km<sup>2</sup> vs. 10,954km<sup>2</sup> for applications being prepared, which includes the whole of Cornwall, an area of 3,500 km<sup>2</sup>), and
  - c. the ability of farmers and landowners to deliver an effective cull (the RBCT was funded, coordinated and delivered by government)
10. If the Secretary of State is satisfied that badger culling will contribute to an effective disease control strategy and is minded to proceed with this policy then to mitigate these risks inclusion of further safeguards is advised, including: setting a limit on the size of control areas, permitting fewer control areas to run concurrently, and allowing Natural England to stipulate, if deemed appropriate, the retention of un-culled areas to act as a source of badgers to assist repopulation of culled areas.
11. Reducing the badger population to the extent and on the scale permitted under this policy has not previously been sanctioned for any protected native mammal species in modern times. If implementation proceeds, we recommend that it does so with caution and with appropriate checks, and that the proposed pilot evaluates all the key uncertainties (at paragraph 9 above) before proceeding with full implementation.

### Scope

12. This advice supplements earlier advice provided to the Secretary of State in January 2011. That advice highlighted the importance of safe-guards to ensure culling does not give rise to concerns about the conservation status of the badger and to ensure that the provisions of the Bern Convention are complied with<sup>5</sup>. Since offering that advice we have received detailed information on industry preparations, which has allowed us to undertake a specific appraisal of the potential impact using data for areas which are expected to form the basis of actual applications.
13. This supplementary advice considers the impact of culling over a range of scales, including the scale anticipated if current industry preparations are fully realised, so that the potential consequences for the badger population and our obligations in respect to the Bern Convention are properly understood.
14. In light of this analysis we offer advice on measures that could be adopted to ensure the survival of badgers in culled areas. These measures are applicable to culling over a range of scales and would be expected to minimise the risk of non-compliance with the Convention.

---

<sup>5</sup> See paragraph 22, 'Protected species and habitats' of the Advice (dated December 2010)



15. This analysis is based on the latest version of the draft Policy Guidance (version 20110628), which takes into account earlier advice on this topic provided by Natural England. In its current form, the guidance proposes that a maximum of 10 licences may be issued each year within the total eligible area (which is at least 31,000 km<sup>2</sup> and up to 39,000 km<sup>2</sup>, approx. 25 - 30% of England)<sup>6</sup>. There is no upper limit on the size of licensed control areas beyond the practical limitations of satisfying licensing criteria. Natural England is required by law to issue licences to all applications satisfying these criteria in a timely fashion<sup>7</sup>.

#### Legal provisions relevant to conservation status

16. Our understanding of the advice that the department has received from Treasury Counsel, expressed simply, is that the hurdles set out in the Convention on the Conservation of European Wildlife and Natural Habitats 1979 (The 'Bern Convention') must be considered as part of the development of any policy. The badger is listed in Appendix III of the Convention and its control or management is subject to certain constraints and obligations. The key provisions relating to badger conservation are:

- Prohibiting the use of all means capable of causing local disappearance of, or serious disturbance to, populations of badgers, and
- Exceptions (i.e. licences) will not be detrimental to the survival of the population of badgers concerned.

17. The terms 'local' and 'population' are clearly key to the interpretation of the Convention, but are not defined in it. In the absence of any definition, the term 'population' is given a normal biological interpretation in implementation of Bern Convention obligations, and in its guidance<sup>8</sup> on licensing the Convention's Standing Committee makes it clear that Competent Authorities (Natural England in this case) need to consider impacts at a range of geographical scales and these need to be ecologically meaningful (which we interpret to mean ranging from a GB-wide scale to a resolution that is likely to be smaller than a county).

Further detail of key provisions is given in Annex B.

18. As a general rule, the guidance states that '*no derogation [licence] should be granted if it has a significant negative effect on a species' conservation status – whether on the specific population (or its prospects) or at biogeographical level.*' To evaluate this, Competent Authorities are required to address two key questions:

- Actual conservation status of the population of a species in its natural range, and
- Impact of the proposed derogation on the population or populations concerned.

Each of these issues is considered below

#### Conservation status of the badger population

19. Although the badger is one of the most studied mammals in Britain, there are no up-to-date reliable figures for the total national or regional populations of this species. The most recent evaluation of the badger population, in 2005, cited an estimated population

<sup>6</sup> To be eligible to apply for a licence, an area must be composed wholly of land within a Parish Test Interval 1 (PTI 1; which requires annual TB testing of cattle) at the time of application and must cover an area of at least 150km<sup>2</sup>. The total area within PT1 is 39,000 km<sup>2</sup> (which is approximately 30% of England), but this includes some isolated patches that are < 150km<sup>2</sup>. The total area of the 10 English counties that are in their entirety categorised as PTI 1 is 32,000 km<sup>2</sup> (which is approximately 25% of the land area of England). The total eligible area therefore lies somewhere between 32,000 and 39,000 km<sup>2</sup>.

<sup>7</sup> Licences '*shall not be unreasonably withheld*'; section 10(9) Protection of Badgers Act 1992.

<sup>8</sup> 'Interpretation of Article 9 of the Bern Convention'; Standing Committee guidance published October 2010

of 190,000 badgers in England, while long-term datasets indicate an upward trend in the population over the last 25 years. Densities of badgers in England, especially in pastoral areas in the west of the country, are amongst the highest recorded in Europe and it is reasonable to conclude that the conservation status of the national badger population is currently favourable (although abundance in some areas, such as Norfolk, remains lower than expected due to historic culling).

20. If it is assumed that some further increase has taken place since the last detailed surveys, it may be reasonable to take an estimate of the population at the higher end of the range suggested by surveys for the purpose of evaluating the impact of culling, and to that end we have used a total population in England of ~220,000.
21. Surveys in the 1980s and 1990s suggest that the West Midlands and South West regions of England, combined, hold about 45% of England's badger population; a total of up to ~100,000 badgers.

Further analysis of the badger's population status is given in Annex A

### **Impact of licensed culling on the badger population**

#### **Geographical extent of badger culling**

22. Approximately 25-30% of England (at least 32,000 km<sup>2</sup> and up to 39,000 km<sup>2</sup>) is potentially eligible for badger control under this policy (see footnote 6). At present, we do not know how much of this area will be subject to licensed control. The policy sets a limit on the minimum size of areas (150 km<sup>2</sup>) and the number of licences that may be issued each year (10), but it does not limit the size of individual control areas. There is not, thus, a fixed upper limit on the geographical extent of culling in any year or overall (except as dictated by the total eligible area), although the practicalities of delivering a cull will become less favourable with increasing area size.
23. The Chief Scientific Adviser for the Department for Environment, Food and Rural Affairs, Professor Robert Watson and a group of scientific experts have advised that to have a significant impact on national disease incidence, culling would need to be conducted over a 'very large area'<sup>9</sup>. This is consistent with our evaluation of current industry aspirations to tackle TB through badger control.
24. Initial discussions with Defra and the industry (in 2010) had led us to expect fewer than 10 applications in total, most ranging between 150 km<sup>2</sup> and 300 km<sup>2</sup>. Information provided by industry sources in February and March 2011 revealed that farmer groups were already developing cull applications for a total of 33 areas covering a total of almost 11,000 km<sup>2</sup> (which is about one-third of the total eligible area) across the western and south-western part of England (see Figure 2). Under the current policy proposals this number of applications would have to be phased in over a four year period. The largest of the proposed control areas is estimated to be approximately 1400km<sup>2</sup> and the average control area is approximately 350km<sup>2</sup>. We do not know if the recent inclusion of a limit on the number of licenses issued each year will influence the size of proposed control areas (for example, a number of proposed control areas are contiguous and applicants could decide to merge these into a smaller number of large applications to increase their chances of an early licence; see Figure 2).

Further details of these areas are given in Annex C and Figure 2.

#### **Number of badgers culled**

25. The number of badgers that would be culled depends on the number and size of control areas and the timing that culling commences in each. Using values published by the Independent Scientific Group (ISG) from the Randomised Badger Culling Trial (RBCT) the number of badgers that will be killed in an average-sized control area (350 km<sup>2</sup>) is



expected to range from 965 - 1379 in the first year and 2300 – 3300 over the full 4 years (lower estimates assume 70% access and upper limits assume 100% access for control; this is Method 1 for estimating numbers culled as described in Annex C).

26. Figure 1 gives estimates for the number of badgers that it is predicted would be killed under this policy for the range of different numbers of licensed control areas (using an average control area of 350 km<sup>2</sup>) up to the maximum of 40 for a four year period. It should be noted that four years is the minimum duration of badger control for each licence (although it is expected to be the norm) and it is also expected that badger numbers would continue to be depressed for some years after the cessation of culling.
27. To allow us to assess the potential impact of culling at the scale envisaged by current industry preparations we have also estimated the level of badger removal for all 33 areas where plans are being prepared by farmer groups, using a range of estimates of cull numbers based on ISG and other survey data. While in practice not all licence applications are likely to succeed because of the stringent licensing criteria, additional applications from other areas and farmer groups are anticipated. In addition, whilst not all of these licences could be issued in years 1 and 2 of the policy, if all are issued within the first 4 years (i.e. later licences are issued whilst the earlier licences are still running) the cumulative effect on badger numbers will be additive and ultimately reach the same level as if the licences had all been issued at the same time.
28. This level of culling represents the higher end of the range of plausible scenarios, but it is important to note that it is a credible and objective assessment of the industry's aspirations for badger control, and is not the maximum extent to which culling could occur under the policy, should the review at the end of 4 years conclude that the issue of licences should continue, or if individual licences are issued for more than 4 years.
29. The cumulative total number of badgers that would be killed if all 33 areas received licences is expected to be from about 70,000 to over 100,000 animals, while for the initial year 1 culls alone, between about 30000 to 59000 animals would be expected to be culled. Assuming an average control area of 350km<sup>2</sup>, the cumulative maximum that might be reached under the policy (for 40 control areas and using ISG data only) is about 90,000 to 130,000 in total and 39,000 to 55,000 in first year culls alone (Figure 1). These figures compare with a cull of 1000 to 1700 badgers each year by the Ministry of Agriculture under the 'interim' strategy in the early 1990s (e.g. MAFF, 1994 & 1996).
30. This level of culling represents ~14% to 27% of the total English population, or 25% to 54% of the West Midlands/South West population (assuming culling commences in all licensed areas within 4 years and each area succeeds in reducing badger populations by ≥ 70% for 4 years, as required under the Policy Guidance).
31. If culling is successfully completed we estimate that approximately 30 to 50 badgers would be killed for each bTB breakdown prevented.

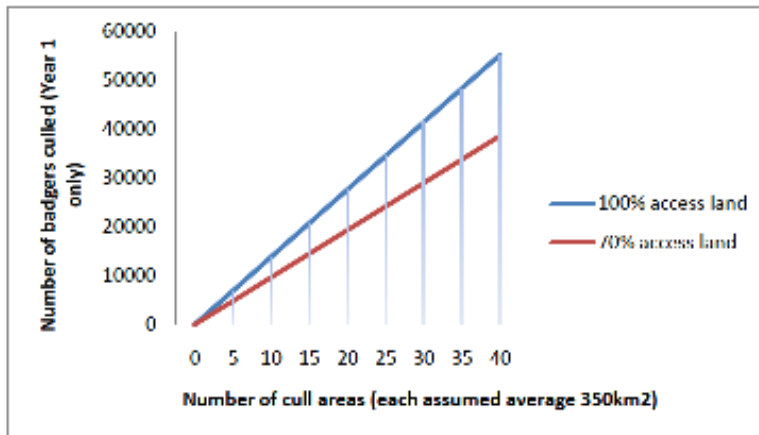
See Annex C for a breakdown of culling estimates and Annex D for a summary of potential benefits for disease control in cattle.



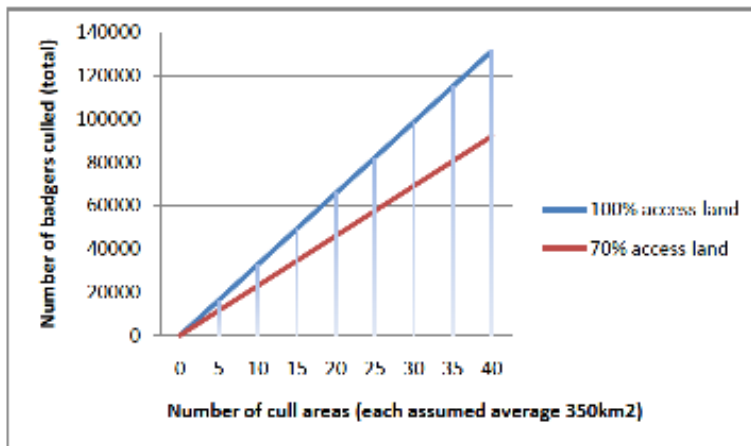
**Figure 1**

A range of estimates for the number of badgers expected to be killed in (a) year 1 and (b) over 4 years, with increasing numbers of licensed control areas (using ISG cull data and an average 350km<sup>2</sup> area estimated from the sizes of proposed control areas being developed by farmer groups) up to the maximum of 40 that might run concurrently under the proposed policy. collectively, these areas would account for up to approximately one third of the total area potentially eligible for culling under the policy.

(a) Year 1 only



(b) Over 4 years



**Conclusions**

32. While there is a high level of uncertainty in these estimates, available information leads us to conclude the following with regard to the potential impact of a badger control policy on populations of this species:

- National and regional populations: It is highly unlikely that the survival of the badger nationally would be jeopardised as we predict that even if control is undertaken on a large scale, licensed culling is expected to remove less than 30% of the total English badger population.

In the west and south-western regions, where a high proportion of the badger population occurs and where culling would be focused, the risk to survival is potentially greater. However, even here the overall removal rate of a large scale cull (based on current proposals) is not expected to exceed about 50% of the population. Badger distribution and abundance at a county or regional resolution could, however be significantly depressed if culling occurs at a large scale, possibly for many years.

In the event that only a handful of licenses are issued, there is unlikely to be any threat to conservation status.

- Local populations: The outcome for 'local populations' is more uncertain. It will depend on the geographical extent of contiguous culling and its intensity. It will also depend on interpretation of 'local' in the context of English badger populations.

As there is no agreed threshold of population size or geographical area for a 'local' badger population (unless the Bern Secretariat provides further clarity) we consider it prudent to consider 'local' to be no greater in area than the minimum size of a control area (150 km<sup>2</sup>).

On this basis, it is our view that the local disappearance of the badger in some areas cannot be ruled out, not least because of uncertainties regarding the size of badger populations and the fact that culling operations could be more effective than observed in the Randomised Badger Culling Trial (due to the longer period during which culling is permitted and the potential use of two, not one culling technique). For example:

- i. The highest estimate of the initial cull alone equates to 79% of the lowest estimate of the total SW/West Midlands regional population (see Annex B).
- ii. Nearly 100% of Cornwall is included within proposed culling areas and an effective cull would remove at least 70% of the badger population over an area of about 3500 km<sup>2</sup>. The recovery of the population would be a slow process as its unique combination of coast and rivers would severely impede immigration into the county.

33. Previous decisions by the Bern Standing Committee have ruled that the Randomised Badger Culling Trial (RBCT), the Welsh Assembly Government's (WAG) proposed cull in Pembrokeshire, and badger culling in the Irish Republic were not in breach of Bern. It is understood<sup>10</sup> that factors contributing to these decisions were:

- a. The relatively small size and number of areas involved (RBCT 10 x 100km<sup>2</sup> and WAG proposal 1 x 288km<sup>2</sup>);
- b. The relatively small number of badgers removed (RBCT <2060/yr compared with estimated national population of 190,000; Irish cull ~5500/yr compared to estimated national population of ~130,000; WAG cull <2000 compared to estimated Welsh population of ~42,000);
- c. The comparative inefficiency of the removal method (RBCT used cage trapping alone; this was also the method of the WAG proposal considered by Bern. It is considered to have "limited efficiency" compared to other methods, such as snaring. RBCT likely maximum ~80%, and WAG suggested removal rate 35-85%), and
- d. The likelihood of immigration leading to relatively rapid population recovery.

34. While past decisions demonstrate that badger culling, even on a relatively large scale, can be compliant with the Bern Convention, there remain differences between the

<sup>10</sup> Summary of decisions in Defra TB Project Board paper 'The Bern Convention and supporting monitoring requirements', 29 November 2010.

proposed policy and previous culls. Considering the factors cited at paragraph 32 (a-d), above, current proposals would potentially allow:

- a. culling to occur over a much larger geographical area;
  - b. a far higher total number of badgers to be killed;
  - c. the more efficient removal of badgers from local areas through use of two techniques of culling, and
  - d. a reduced scope for immigration to aid population recovery where culling areas are large and / or contiguous.
35. It is our view that in the event that culling is permitted over a large area, which is a plausible outcome if current industry plans and aspirations are realised or if it became government policy to tackle TB prevalence nationally through badger control, there would be a significant risk of contravening Articles 8 and 9 of the Convention. Widespread control which is undertaken with the specific aim of reducing populations by at least 70% may prove detrimental to the survival of badger populations at least in some localised areas of the south-west of England, and reliance on past decisions under different detailed circumstances by the Standing Committee is considered unsafe. We therefore welcome the Government's decision to seek advice from the Convention's Secretariat on the current proposals prior to their implementation.
36. In the event that a policy of licensed culling is approved, we recommend that the Policy Guidance on licensing issued to Natural England is further amended to provide additional safe-guards to protect badger populations. A series of recommendations are given below.

#### Risks for badger populations and obligations under Bern Convention

37. Culling could be carried out differently to the way it was done in the RBCT, but the closer the policy is to the RBCT the greater the certainty there is concerning outcomes for both badgers and disease control. It is those aspects of the policy that deviate from this evidence-base, and whose effects on the population are difficult to predict, that pose the most significant unquantified risk to badger populations.
38. The decision to limit culling to a single 6-week period (which would aim to replicate the intensive, simultaneous culls carried out in a single 8-11 day period each year during the RBCT) and not to permit culling to continue until the onset of the close season (which could have extended culling to a 6-7 month period each year) significantly reduces the risk of local disappearance.
39. The remaining elements of the policy deviating from the RBCT and which may increase the risk of local disappearance include:
- a. *Use of two methods of culling*: this is expected to increase the efficiency of culling making it possible to remove a greater percentage of resident badgers than the estimated 70% removal achieved in the RBCT.
  - b. *Size of control areas*: The proactive control areas in the RBCT averaged 113 km<sup>2</sup>, whereas the size of control areas being developed by industry average 350 km<sup>2</sup> (the largest is over 1400 km<sup>2</sup>) with groups of contiguous control areas covering areas of several thousand square kilometres (e.g. a series of contiguous control areas are being developed for the whole county of Cornwall, which is 3,500 km<sup>2</sup> or ≈35 times the size of a RBCT proactive control area). Culling over such large areas will reduce the potential for immigration to contribute to the recovery of badger populations in culled areas (although we acknowledge that large control areas will benefit disease control).
40. The policy deviates from the evidence-base in another key element, and that is the reliance on farmers rather than government, to fund, coordinate and undertake badger



control. While this risk is not of direct relevance to badger population status and Bern obligations, it is relevant to the attainment of disease control benefits from culling and thus to the defensibility of derogating the protection afforded to badgers under UK law and the Convention.

41. If the Secretary of State is satisfied that badger culling will contribute to an effective disease control strategy and is minded to proceed with this policy then we recommend that these risks are mitigated, and that its implementation proceeds with caution and with appropriate checks.

#### Mitigating the risks

42. There are well-established methods of evaluating badger presence and abundance and past studies provide us with a range of densities for the areas of the country where culling is proposed. These are not, however, sufficiently precise to accurately evaluate the impact of culling for individual licences. Furthermore, the policy will not require licensees to carry out detailed pre-cull (or post-cull) surveys and even if this were so, the best methods available could not realistically be used to provide sufficiently precise populations estimates at the necessary geographical scale (due to costs).
43. Using available information, Natural England proposes to set targets and upper limits for the number of badgers to be killed in each control area. These will aim to achieve at least 70% removal of badgers while ensuring the survival of the badger population within each area. These thresholds will be reviewed annually using information on badgers killed and culling effort provided by licensees. Post-cull monitoring by the Food and Environment Research Agency (Fera) will provide information on the presence/absence of badgers, but not population density.
44. Because the evidence-base is imprecise, the thresholds set by Natural England cannot guarantee badger survival locally. Nor will it be possible to institute precise trigger points or signals relating to badger survival that can be relied upon to fine tune culling during the period of individual licences. The best indicator of survival will be the post-cull surveying conducted by Fera, which if conducted annually in each culling area, will provide important evidence concerning the presence and distribution of surviving badgers.
45. Without precise information on badger populations we advise that further safeguards are built into the design of the culling regime. Drawing on previous Bern Standing Committee decisions we consider inclusion of the following measures to have the potential to reduce the risk of causing the disappearance of local badger populations and (as a result) non-compliance with the Bern Convention. Values are given for illustrative purposes and will require further consideration, which should be informed by any advice received from the Bern Convention Secretariat.
  - a. Limit the total number of control areas that may run concurrently (e.g. maximum of 5 in any one year).<sup>11</sup>
  - b. Limit the size of individual control areas (e.g. maximum 400km<sup>2</sup>);
  - c. Limit the number and extent of contiguous control areas that may operate concurrently (i.e. set maximum of, for example, 1000km<sup>2</sup>); and
  - d. Allow Natural England to impose, where it deems necessary, a requirement that part of the boundary of a control area adjoins an un-culled area to allow migration of badgers to contribute to population recovery (this may be applicable where, for example, culling takes place over such a high proportion of a control area that it

---

<sup>11</sup> The current proposal is to issue a maximum of 10 licences issued each year, which would allow badger control in up to 40 areas simultaneously by the fourth year of implementation);

is deemed unlikely that the surviving, post-cull population will be sufficient to allow recovery in a reasonable timescale)<sup>12</sup>.

These measures could be explicitly included in the Policy Guidance or Natural England could exercise discretion as the licensing authority to apply the measures where it deems it necessary to ensure compliance with the Convention. This discretion should apply applications individually and collectively.

46. It is acknowledged that measures necessary to mitigate adverse impacts of large scale culling on the badger population are likely to influence the potential benefits accrued from badger control on TB incidence in cattle. For example, restricting the number of control areas to the five where the greatest benefit is expected would reduce the number of TB breakdowns in cattle prevented for the 33 industry proposed control areas from 2450 to ~550 (see Annex D).

**Proceeding with caution: a pilot**

47. A combination of appropriate safeguards in the design of the culling regime and monitoring will reduce risks to the badger population. However, because of differences between current proposals and the evidence base there remains significant uncertainty regarding the consequences of culling on badger populations, especially if implemented on a widespread scale. It is important, therefore, that policy implementation proceeds with caution and with appropriate checks. The decision to include a pilot phase at the outset in involving 2 control areas is thus welcome. This pilot should evaluate all the key uncertainties identified above (at paragraph 39 and 40).
48. A pilot will have the added benefit of ensuring the scale of culling operations in the initial phase of implementation does not exceed the capacity of government to readily step in and complete culls if the farmer-led model proves unsuccessful.

Natural England

30 June 2011 (first submitted in draft 12 May 2011)

---

<sup>12</sup> As the licensing authority, Natural England will need to balance attainment of the primary objective of licensing, which is to control TB in cattle (including minimising the risks that badger perturbation causes increased TB incidence in neighbouring areas) and the Bern Convention obligations to ensure the survival of badger populations. In some situations, for example, it may be appropriate to limit the extent that a control area borders other culling areas to provide a source of badgers to contribute to the recovery of a culled population. This could be applicable where culling is proposed over a very high percentage of a licensed area or where such areas are very large. Assessments would be undertaken on a case by case basis.

## Annex A

### A summary of the key legal provisions of the Convention on the Conservation of European Wildlife and Natural Habitats 1979 (The 'Bern Convention') relevant to badger culling

The badger is not listed in Appendix II to the Convention as a species requiring strict protection, but it is listed in Appendix III, and its control or management is subject to certain constraints and obligations. The key provisions relating to badger conservation are:

- Prohibiting the use of all means capable of causing local disappearance of, or serious disturbance to, populations of badgers, and
- Exceptions (i.e. licences) will not be detrimental to the survival of the population of badgers concerned.

The key Articles are summarised below:

#### Article 7

This states that

1. Each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the protection of the wild fauna species specified in Appendix III.
2. Any exploitation of wild fauna specified in Appendix III shall be regulated in order to keep the populations out of danger, taking into account the requirements of Article 2<sup>13</sup>.

#### Article 8

States that in respect of the capture or killing of wild fauna species specified in Appendix III and in cases where, in accordance with Article 9, exceptions are applied to species specified in Appendix II, Contracting Parties shall prohibit the use of all indiscriminate means of capture and killing and the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species, and in particular, the means specified in Appendix IV.

The following methods of killing and taking are included the list of prohibited methods in Appendix IV, and their use as part of this policy would require a derogation<sup>14</sup>. Only the first three methods (in bold) will be authorised for killing / taking badgers under the proposed policy.

- **Artificial light sources**
- **Devices for illuminating targets**
- **Traps** (if applied for large scale or non-selective capture or killing)
- Sighting devices for night shooting comprising an electronic image magnifier or image converter
- Semi-automatic or automatic weapons with a magazine capable of holding more than two rounds of ammunition
- Motor vehicles in motion

<sup>13</sup> Article 2: The Contracting Parties shall take requisite measures to maintain the population of wild flora and fauna at, or adapt it to, a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements and the needs of sub-species, varieties or forms at risk locally.

<sup>14</sup> These methods are prohibited as means of killing and taking badgers under English law by the provisions of section 11 of the Wildlife and Countryside Act 1981 (as amended).

**Article 9**

This allows for exceptions to be made from the protection afforded by Article 7 and the prohibition of methods in Article 8 for a number of purposes, including:

*"to prevent serious damage to crops, livestock, forests, fisheries, water and other forms of property"; "in the interests of public health" and "overriding public interests".*

provided that there is *"no other satisfactory solution and that the exception will not be detrimental to the survival of the population concerned."*

**Appendix IV**

This lists prohibited methods (which may be allowed under an Article 9 exception), including snares, artificial light sources, devices for illuminating targets, electronic image magnifiers or converters for night shooting, traps ("if applied for large scale or non-selective capture or killing"), gassing or smoking out and semi-automatic or automatic weapons with a magazine capable of holding more than two rounds of ammunition.



## Annex B

### Badger population and conservation status

- a) Although one of the most studied mammals in Britain, there are no up-to-date reliable figures for the total national or regional populations of badgers. There have, however, been a number of national surveys from which estimates of the population can be derived.
- b) The first stratified survey was that of Cresswell *et al* (1990) in the mid-1980s. They estimated that there were ~43,000 badger social groups in Britain (~32,600 in England) and, assuming a mean of 5.9 adult badgers per social group, suggested a total population of ~250,000 (~190,000 in England). However, Wilson *et al* (1997) suggested that a mean of 5.9 might be an over-estimate, giving examples of regional mean estimates of 3 and 4 adult badgers per social group. Using 4 as an overall mean would have given figures for the mid-1980s of 172,000 for Britain, with 130,000 in England.
- c) A second stratified survey was carried out in the mid-1990s (Wilson *et al*, 1997). In this survey the number of social groups was estimated to have increased to ~50,000 giving a total population, assuming 4 or 5.9 adult badgers per social group, of ~200,000 or 295,000 respectively. For England, assuming the same proportion of the total as in the 1980s survey, these give a population of ~152,000 or 224,000, respectively.
- d) There are no more recent national surveys of badger numbers. In a 2005 evaluation of mammal populations, the *Tracking Mammals Partnership* categorised the badger as "widespread and common" and estimated the badger population in England to be approximately 190,000 badgers (Battersby, 2005). Ongoing surveys carried out by the Partnership show that badger numbers have increased over the last 25 years, as well as during the decade since the last detailed surveys (Tracking Mammals Partnership, 2009).
- e) **On this basis, it is reasonable to conclude that the conservation status of this species nationally is favourable, although densities in some areas, most notably Norfolk, remain lower than expected based on habitat (Heydon *et al*, 2000). This is believed to be a consequence of historic culling leading to a long-term suppression of the population from which it is still recovering.**
- f) If it is assumed that some further increase has taken place since the last detailed surveys, it may be reasonable to take the higher of the above estimates as the more likely figures for the purpose of evaluating the impact of culling; i.e. a total population in England of ~220,000.
- g) The findings of both the 1980s and the 1990s surveys suggest that the West Midlands and South West regions of England, combined, hold about 45% of England's badger population; a total of ~68,400 or 100,000, based on the total population estimates for England in (c) above. It is in this part of the country that the majority of the proposed control areas are located.



## Annex C

### Scale of badger culling

#### Number and size of known proposals for control areas

- a) Based on information provided so far by industry sources we have identified 33 proposed control areas, for 22 of which indicative maps have been provided to date.
- Total area of 33 proposed control areas = 10954km<sup>2</sup>; mean individual area = 332km<sup>2</sup>
  - Total area of 22 for which maps received = 7784km<sup>2</sup>; mean individual area = 354km<sup>2</sup>.

#### Number of badgers culled

- b) Under the policy proposals licensees are required to reduce the population within culling areas by at least 70% in the first year and maintain the population below 30% of the original population over the entire 4-year culling period (this emulates what was achieved during the Randomised Badger Culling Trial).
- c) The number of badgers that would be culled under the policy can be estimated; such estimates are inevitably approximations, but in an effort to compensate for this, three different approaches are used:
- Method 1: using the Independent Scientific Group (ISG) data (Bourne *et al*, 2007) to estimate the mean number of badgers culled per km<sup>2</sup> in the initial cull (3.94/km<sup>2</sup>) and the mean number culled per km<sup>2</sup> in each of the first three annual follow-up culls (1.82/km<sup>2</sup>)<sup>15</sup>.
- Method 2: using the ISG data as above, but using figures from the triplets that correspond most closely to the proposed control areas – referred to here as 'regional' data. Where there were no triplets near the proposed area the mean figures are used.
- Method 3: using the data from the Food and Environment Research Agency (Fera) distance sampling surveys for Cornwall, Devon, Gloucestershire and Herefordshire to estimate the initial intensive cull (year 1) in those counties (Fera unpublished report summaries). For areas outside these counties the mean ISG figures are used, as above.
- d) No account is taken in these estimates of the fact that culling intensity could exceed that observed in the Randomised Badger Culling Trial. This is a realistic prospect due to (i) the use of shooting in addition to cage trapping, and (ii) extending the period of culling from 8-11 days each year under the RBCT, to 6 weeks.
- e) The number of badgers that would potentially be killed under this policy estimated using Method 1 for different numbers of licensed culls areas, using an average-sized control area of ~350 km<sup>2</sup>, is presented in Figure 1 (see above). Further estimates, using all three methods are given below. Two values are given for each, one which assumes access to the whole control area for culling and one which assumes access only to the *minimum* of 70%<sup>16</sup>.
- f) In an average-sized control area of ~350km<sup>2</sup>, following these three methods, the initial cull would be expected to be 1280 to 1878 badgers (mean = 1513), with the overall total

<sup>15</sup> NB: This under-estimates the total number of badgers killed in follow up culls in the RBCT as seven out of the 10 control areas had more than three follow up culls (maximum, initial cull plus six follow up culls).

<sup>16</sup> It is not possible to make a simple adjustment for different levels of access for the combined distance sampling/ISG data (Method 3), but in this case, in calculating the 70% access total, the follow-up cull figure (which is solely based on ISG data) is similarly corrected.

being 3142 to 3789 badgers culled (mean = 3407) over the 4 year culling period. If only the minimum 70% of land were accessible for culling, the figures would be 896 to 1878 (mean = 1247) in the initial cull and 2199 to 3216 badgers culled (mean = 2573) in total.

***Estimated size of badger cull for the 33 proposed control areas***

Data used	100% access to land			70% access to land	
	Initial cull	Three follow-up culls	Total (over 4 years)	Initial cull	Total
Method 1	43158	59808	102966	30210	72076*
Method 2	40075	58261	98336	28052	68835
Method 3	58783	59808	118591	58783	100649
MEAN	47339	59292	106631	39015	80520

\*NB: Defra calculation using ISG data and assuming 70% access gives a total figure of 68200, but this is based on a total area of 10,372km<sup>2</sup> not 10,954km<sup>2</sup>.

- g) These figures suggest that for all 33 areas the total number of badgers culled over a 4 year cull period is likely to be at least around 70,000 and may be over 100,000. For the initial cull alone, between about 30000 to 59000 animals would be expected to be culled.
- h) If culling were followed through and successfully completed in all 33 areas, such that the benefits estimated above were realised, the figures suggest that around 30 to 50 badgers would be killed for each bTB breakdown prevented.
- i) If only the 22 areas for which indicative maps have already been received were licensed, and using the same methods as above, the number of badgers culled is estimated as follows:

***Estimated size of badger cull for 22 areas (for which maps have been provided)***

Data used	100% access to land			70% access to land	
	Initial cull	Three follow-up culls	Total (over 4 years)	Initial cull	Total
Method 1	30670	42502	73172	21469	51220
Method 2	28438	41013	69451	19906	48616
Method 3	44255	42502	86757	44255	74006
MEAN	34454	42006	76460	28543	57947

**Impact of culling on badger populations**

- j) The impact of the culling on the badger population will depend on a number of factors, including the number and size of control areas that are licensed, the proximity of control areas to each other, and the timing that culling commences in each area. It will also be influenced by the level of access to land and efficiency of culling within each area.
- k) Using the industry proposals as the basis for evaluating what a large scale cull might realistically look like it is plausible that ~14% to 27% of the total English population, or 25% to 54% of the West Midlands/South West population, might be removed as a result of initial culls and maintained at these reduced levels (assuming culling for all 33 areas commences within a 4 year period, and deducting ~5,000 for control areas outside these regions). If only the 22 areas for which indicative maps have so far been submitted were culled, this would be around 10% to 20% of the total English badger population or 18% to 42% of the West Midlands/South West population (deducting 2000 for control areas outside these regions).
- l) The rate of recovery of culled populations is likely to depend on the population density and structure of any residual population, the size of area over which culling has taken place and the potential for immigration of badgers from adjacent areas. Published studies of badger populations following culling have suggested that recovery to pre-

culling levels can take from as little as 3 years (Tuytens *et al*, 2000) to 9-10 years (Cheeseman *et al*, 1993). These findings were, respectively, for an area of 13.4km<sup>2</sup>, where only about one third of the population was removed, and an area of 104km<sup>2</sup>, where the badgers were effectively eradicated. It is likely that the recovery of populations culled under the proposed policy would be more comparable with the latter study and that the time taken for complete recovery in some areas could be significantly longer.

Comparison with European populations

- m) Data reviewed by Griffith & Thomas (1997) permit comparison with the density of badgers in different European countries. In many states, stable populations of badgers are maintained at densities below 1 badger/km<sup>2</sup>. For example, densities of 0.3 to 0.5 badgers/km<sup>2</sup> are common in Slovenia, Hungary, Germany and Finland, where the species is not considered to be threatened, although higher densities, comparable with those in England<sup>17</sup>, have been also been reported (e.g. 2-4 badgers/km<sup>2</sup> in parts of Germany and mean ~1.35/km<sup>2</sup> in Sweden).
- n) Because of the relatively high density of badgers in the parts of England eligible for culling under this policy it is likely that, in most cases, residual post-culling populations would persist at densities comparable to some other European countries. This could be interpreted as evidence that the proposed culling would not contravene the Bern Convention. It should be noted, however, that under Article 2 of the Convention, the status of the badger population in England is expected to be maintained at the level which corresponds in particular to ecological, scientific and cultural requirements of this country, and not a European average.

---

<sup>17</sup> Mean over whole country ~1.15-1.89km<sup>2</sup>, using national population estimates given above. Densities in excess of 20/km<sup>2</sup> recorded in high density areas (Rogers *et al*, 1997; Macdonald & Newman, 2000).



## **Annex D**

### **Potential benefits for disease control in cattle in industry proposals**

- a) The number of TB breakdowns in cattle prevented by culling badgers has been estimated for each of the 33 proposed control areas identified from information provided by industry using the 'Donnelly model', as used by Jenkins *et al* (2010). Unfortunately, the model assumes 5 years culling plus 4 years post culling incidence, whereas the draft licensing criteria propose (minimum) 4 years culling, so the model may over-estimate the benefits compared to 4 years culling.
- b) Using the standard figures for herd density and incidence data provided in the model, assuming the same background incidence inside and outside control areas and, where possible, making allowance for no-risk boundaries (i.e. coast & major rivers), the number of breakdowns expected over the whole 9 year period was estimated with and without culling.
- c) The total number of new breakdowns expected over the whole 9 year period in the 33 control areas in the absence of culling would be ~12800. With 5 years culling and a 4 year post-culling period the number of breakdowns would be ~10350, representing an overall reduction of 2450 (19%) in expected breakdown incidents.
- d) We estimate that an individual farmer 'destined' to suffer a bTB breakdown during the 9 year period in the absence of badger control would, if culling took place, have a 1 in 5 chance of avoiding such a breakdown. If the farm was within the control area then the chance of avoiding a breakdown would increase to 3 in 10.

## **Annex E**

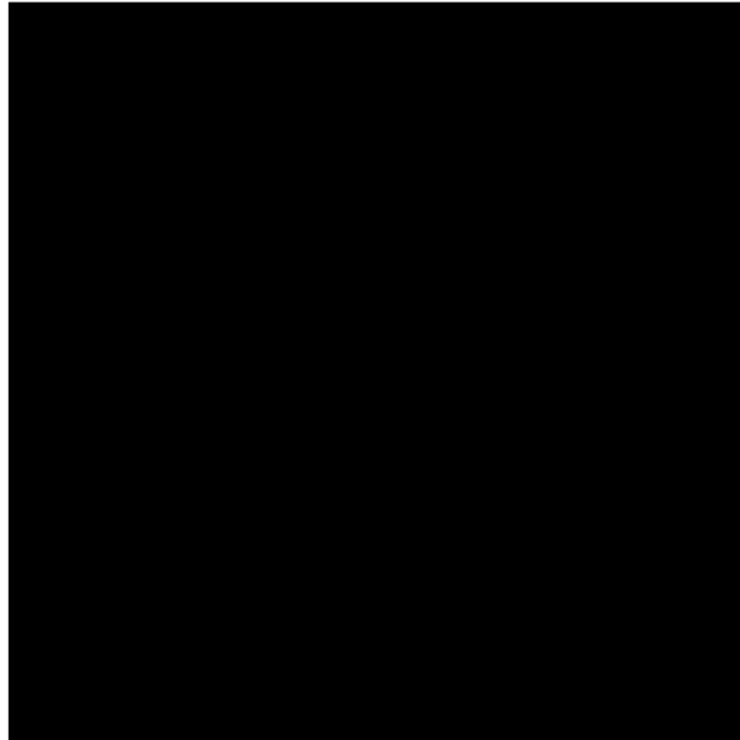
### **Limiting the number of control areas**

Limiting the number of culling areas to the five industry proposals where the model suggests the greatest benefit, avoiding extensive contiguous areas and the one area over 1000km<sup>2</sup>, would be expected to prevent ~545 TB breakdowns in cattle. A total of ~18,500 to 26,000 badgers would be culled over four years culling; ~34-48 badger per breakdown prevented in these five areas.

## References

- Battersby, J. and Tracking Mammals Partnership (2005). UK Mammals: Species Status and Population Trends. First Report by the Tracking Mammals Partnership. JNCC and Tracking Mammals Partnership (JNCC: Peterborough.)
- Bourne, FJ, Donnelly, C, Cox D, Gettinby, G, McInerney, J, Morrison, I & Woodroffe, R (2007) Bovine TB: The Scientific Evidence, A Science Base for a Sustainable Policy to Control TB in Cattle, An Epidemiological Investigation into Bovine Tuberculosis. Final Report of the Independent Scientific Group on Cattle TB. London: Department for Environment, Food and Rural Affairs.
- Cheeseman, CL, Mallinson, PJ, Ryan, J & Wilesmith, JW (1993) Recolonisation by badgers in Gloucestershire. *The Badger* (ed. TJ Hayden), pp 78-93. Royal Irish Academy, Dublin.
- Cresswell, P, Harris, S & Jefferies, DJ (1990) The history, distribution, status and habitat requirements of the badger in Britain. Nature Conservancy Council, Peterborough.
- Griffith & Thomas (1997) Badger in Europe. Council of Europe, Nature & Environment Series, No. 90.
- Heydon, MJ, Reynolds, JC & Short, MJ (2000) Variation in abundance of foxes (*Vulpes vulpes*) between three contrasting regions of rural Britain, in relation to landscape and other variables. *Journal of Zoology*, 251, 253-264.
- Jenkins, HE, Woodroffe, R & Donnelly, CA (2010a) The Duration of the Effects of Repeated Widespread Badger Culling on Cattle Tuberculosis Following the Cessation of Culling. *PLoS ONE* 5(2): e9090. doi:10.1371/journal.pone.0009090
- Macdonald, DW & Newman, C (2000) Population dynamics of badgers in Oxfordshire, UK: numbers, density and cohort life histories, and a possible role of climate change in population growth. *Journal of Zoology*, 256, 121-138.
- MAFF (1994) Bovine tuberculosis in badgers: Seventeenth report by the Ministry of Agriculture Fisheries & Food. MAFF, London.
- MAFF (1996) Bovine tuberculosis in badgers: Nineteenth report by the Ministry of Agriculture Fisheries & Food. MAFF, London.
- Rogers, LM, Cheeseman, CL & Mallinson, PJ (1997) The demography of a high density badger population in the west of England. *Journal of Zoology*, 242, 705-728.
- Tracking Mammals Partnership (2009). UK Mammals: Update 2009. JNCC
- Tuytens, FAM, Macdonald, DW, Rogers, LM, Cheeseman, CL & Roddam, AW (2000) Comparative study on the consequences of culling badgers on biometrics, population dynamics and movement. *J Animal Ecology*, 69, 567-580.
- Wilson, G, Harris, S & McLaren, G (1997) Changes in the British badger population 1988-1997. Peoples Trust for Endangered Species.

**Figure 2:** Location of badger control areas in proposals being developed by farmer groups. Areas for which indicative maps have been received (22 out of the total of 33 areas) are shown as outlines of the actual areas as displayed on the maps submitted to Natural England. Approximate locations of proposed areas for which indicative maps have not been received are shown by blue circles.



[Back to Annexes](#)