

League Against Cruel Sports' response to Defra consultation paper titled "*Guidance to Natural England on licensed badger control to prevent the spread of bovine tuberculosis. December 2016*"

Defra's 2016 consultation document states "*Our proposal is designed to enable farmer-led licensed supplementary badger control in order to maintain disease control benefits in areas where successful culls have been completed over at least 4 years. We invite views on how this proposal can be made as effective as possible.*" The League Against Cruel Sports is happy to provide answers to the three specific questions of this consultation:

Question A: The proposed approach to licensing –including the conditions of licensing, the discretion in Natural England's decision-taking and the licence period.

Answer: The League Against Cruel Sports is not supportive of the proposal to allow supplementary licensing to allow culling of badgers to continue in cull areas. We do not believe that badgers are the main source of infection of bovine TB in cattle, and therefore culling them is not going to significantly help to control the disease. On the contrary, it may make the problem worse not only because it diverts resources away from the cattle measures that can have a real positive impact, but also because the perturbation effect may actually spread the disease rather than control it.

Research by Moustakas and Evans (2016)¹ has shown that the contribution of infected individual badgers to the spread of disease is considerably smaller than cattle, and recent different research from Ireland (2015)² and England (2016)³ shows that there are few opportunities for badgers to pass the disease to cattle, as badgers seem to avoid cattle where possible.

We believe that because badgers are a protected species, culling them should only occur if a) there is consensus by most experts that badgers are the main causes of the epidemic, b) there is consensus by most experts that culling badgers will effectively reduce the epidemic to a significant degree, and c) that all other alternatives have been fully developed and they all failed. None of these conditions have happened, let alone the three of them, and there is already enough evidence to suggest that none will ever happen.

As the current culls are now completely removed from the methodology of the RBCT⁴ and the advice given by Defra's own advisors⁵, the few experts that erroneously used RBCT to justify the culling (as

¹ Moustakas A and Evans M (2016) A big-data spatial, temporal and network analysis of bovine tuberculosis between wildlife (badgers) and cattle. *Stoch Environ Res Risk Assess* DOI

² Mullen E.M et al (2015) The avoidance of farmyards by European badgers *Meles meles* in a medium density population. *Appl Animal Beh Sci* 171, 170-176

³ Woodroffe et al (2016) Badgers prefer cattle pasture but avoid cattle: implications for bovine tuberculosis control *Ecology Letters* doi: 10.1111/ele.12654

⁴ Some of the aspects of the cull methodology that no longer follow the RBCT conditions are: the period of time over which culling is undertaken each year, the minimum percentage of land used for culling in a culling area, the minimum size of the culling area, the percentage of badgers that must be culled, the fact that licensed culling is being conducted by farmer/landowner groups or their agents rather than Government employees, the lack of coordinated simultaneous culling in licensed zones, the licensing of 'controlled

the RBCT clearly showed that culling would not contribute significantly to the control of bTB in cattle) no longer have any credible study to back their position. The Government is yet to produce evidence that the four culls in Somerset and Gloucestershire carried out from 2013-2016 have produced any disease benefits for cattle, and scientific opinion suggests that it will not be possible to obtain such evidence⁶.

In fact, in the counties where four years of culling has been completed, new herd incidence for the 12 months to the end of October 2016 was higher than for 2014 in Somerset, and for 2015 in Gloucestershire. By contrast in Wales, where badger culling has not been employed, *New Herd Incidence* has declined approximately 42% (from 1,198 in 2008 to 695 for the 12 months to October 2016).⁷ Therefore, there is no justification to extend the culling in these areas for more years.

We also consider that the proposed new supplementary licences are a step towards the elimination of badger protection, which will eventually lead to a general unrestricted licensing system in which anyone will be allowed to kill any badger anywhere indefinitely. We believe this because essentially the justification for this proposal is based on two false premises: that most badgers must be killed, and that they can be killed regardless of whether they contribute to the epidemic or not, or whether such culling would have any effect on the epidemic or not. Under this justification there is no reason why such new licenses should not be issued for three, four, five, ten or twenty years, or why there should not be general licenses rather than individual licenses. Therefore, we suspect that the exact same false arguments will be used in the future to further erode badger protection.

One of the consequences of not adhering to the RBCT conditions is that the current culling method leads to patchy culls, which are likely to worsen bTB in cattle rather than reducing it⁸. RBCT proactive culls increased cattle TB on land outside trial areas⁹, and inside the reactive areas, patchy culls increased cattle TB throughout the culling period^{10 11}. The proposal for supplementary culling under these patchy conditions is likely to make this problem worse.

Also, Defra's original cost-benefit analyses were based on the assumption that the costs of culling would be borne for four years, while the benefits would last for several years after the end of culling. Extending the culling will certainly increase costs but the impact on benefits is uncertain.

Considering all this, we believe that all culling should stop, and no further licences for culling, of any kind, should be issued.

shooting' in addition to trapping and shooting as a control method, and now the proposed supplementary culling.

⁵ Bovine TB - Key conclusions from the meeting of scientific experts, held at Defra on 4th April 2011

⁶ Kao, R. 2015. Determining the impact of badger culling on the incidence of TB in cattle. *Veterinary Record* 177: 415-216. doi: 10.1136/vr.h5493

⁷ <https://www.gov.uk/government/statistics/incidence-of-tuberculosis-tb-in-cattle-in-great-britain>

⁸ Bourne, J. et al. Bovine TB: the scientific evidence. (Defra, http://webarchive.nationalarchives.gov.uk/20081107201922/http://defra.gov.uk/animalh/tb/isg/pdf/final_report.pdf, 2007).

⁹ Donnelly, C. A. et al. Impacts of widespread badger culling on cattle tuberculosis: concluding analyses from a large-scale field trial. *International Journal of Infectious Disease* 11, 300-308 (2007).

¹⁰ Donnelly, C. A. et al. Impact of localized badger culling on TB incidence in British cattle. *Nature* 426, 834-837 (2003).

¹¹ Vial, F. & Donnelly, C. A. Localized reactive badger culling increases risk of bovine tuberculosis in nearby cattle herds. *Biology Letters* 8, 50-53 (2011).

Question B: The proposed plans to ensure badger welfare is maintained, including views on the most appropriate time limit for badger control within the open season.

Answer: We do not believe that the proposed plans ensure badger welfare is maintained, as such plans include badger culling using free shooting, which is a method that has been proven to be inhumane. The Independent Expert Panel (IEP) that reviewed the first pilot culls in 2013 found that, using the Government criteria of humanness, the free shooting method was clearly inhumane¹². The fact that the IEP was then disbanded, and the subsequent monitoring was not independent but done by Natural England (NE), suggests to us that subsequent culls were even more inhumane.

Also, there seems to be a big disparity on the percentages of badgers shot at and missed, or not retrieved, between NE's observed incidents (8% and 2.7% respectively) and those reported by the cull companies in 2016 (0.58% and 0.24%), suggesting to us that more badgers are missed than reported missed. This is another reason to suggest that the lack of independent monitoring is being used to cover up the inhumanness of the cull. The lack of post mortems performed further supports this hypothesis.

We also must express our concerns for the humanness of trapping badgers when carried out by contractors rather than by highly trained individuals who would have the welfare of the badger as a priority.

It is important to note that since the IEP report the British Veterinary Association (BVA) has withdrawn their support for free shooting on the basis that it cannot be achieved humanely.¹³ Also, the former Chair of Defra's Independent Expert Panel, Prof Ranald Munro, has stated publicly that safeguards to badger welfare in cull zones do not reach the standard set by the Animals in Scientific Procedures Act.

Question C: How Natural England should evaluate the effectiveness of supplementary badger control over the five-year licence period to ensure that it meets the aim of keeping the population at the level required to ensure effective disease control benefits are prolonged.

Answer: We believe the only way to evaluate such effectiveness is to evaluate the impact of the cull on the cattle epidemic by measuring the decline of disease outbreaks comparing areas where the only variable that changed is the presence or absence of a cull, which cannot be done when other measures that may reduce the epidemic have also being applied (such as changes to cattle testing, trading restrictions and biosecurity).

Defra decided to use the IFNy test on cattle only in areas where badger culling has been undertaken, which will make it impossible to assess properly the impact of the cull as such test will affect the detection of the disease differently in areas with cull or without cull.

¹² Independent Expert Panel (2014) Pilot badger culls in Somerset and Gloucestershire Report to Sec of State. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300382/independent-expert-panel-report.pdf

¹³ <https://www.bva.co.uk/News-campaigns-and-policy/Newsroom/News-releases/badger-cull/>

Natural England cannot evaluate properly the effectiveness of supplementary badger control measures for other reasons: Firstly, because no proper controls have been used to allow identifying only the effect of the cull in a cattle population, as several Btb control measures have been applied in addition to the cull. Secondly, because the current cull methodology is not following the RBCT (the only research that exists to evaluate the effect of a badger cull on Btb), and this suggests that, by virtue of having eliminated the conditions that would lead to some positive effect, the first four years of the cull are likely to either not have had any positive effect in controlling the epidemic, or would have made it worse. There is no empirical evidence of the effects of these four years of culls which contradicts this conclusion. Therefore the subsequent five supplementary years no longer have a control reference from which to base the evaluation, so it would be impossible to find out if the results found when attempting to evaluate the effectiveness are caused by the initial cull or the supplementary cull.

Also, if erroneously the effectiveness of the cull is measured by the percentage of the population of badgers that are eventually shot, this can only be done based on having accurate estimates of the population of animals to cull, and the estimates of badgers in the current cull areas has been repeatedly called into question. Defra's current methods for estimating badger numbers have proven very inaccurate. For example, in 2016 Defra was forced to revise its cull targets for all seven new culling areas when some cull companies killed more than double their target while others barely killed half ¹⁴.

Additional Comments

We consider that the proposals of this consultation are not supported by credible evidence, and they are just another step towards making the badger cull policy less scientific and less justified. Proposing these changes before the proper evaluation of the four years of culling in the two pilot areas is a good example of this irresponsible and misguided policy.

We are concerned that the continued obsession with badger culling is diverting attention from the main problem of the disease in cattle, which is likely to make the problem worse and to waste tax payers' money.

We want to reiterate that for us this proposal seems to move England and Wales towards a "general licensing" system which we believe will pose a great threat to wildlife and effectively eliminate the protection of badgers, which may be the Government's main motivation for having blamed badgers for the BTb epidemic, despite the lack of evidence.

We also want to point out that there are feasible alternatives to this culling. The Welsh Government has adopted a strategy of strict cattle measures rather than badger culling in recent years, and without killing badgers to date it has been more successful than England in reducing bovine TB in cattle.

¹⁴ Defra. *Summary of badger control monitoring during 2016*. (<http://www.bovinetb.info/docs/summary-of-badger-control-monitoring-during-2016-updating-of-minimum-and-maximum-numbers-during-the-cullannex-a2.pdf>, 2016).