

From: Brown, Ele

Sent: 01 March 2022 15:39

To: [Redacted]

@defra.gov.uk>; [Redacted]

@defra.gov.uk>

Subject: RE: Policy to clear I Vet Record - Badger culling in the High Risk Areas

Importance: High

Hi [Redacted] and [Redacted] ,

We are planning on sending the following email to the VR on the back of the paper they sent us, in advance of the cleared comms lines and longer comment.

Do you have any concerns with this approach?

We can make the 3rd explanatory para more pithy if you prefer.

I think it's useful to flag our concerns now as we should push for a longer opportunity to comment we've been offered (see attached).

Best wishes,

Ele

Dear [Redacted] and [Redacted]

Thank you for sharing an embargoed copy of the Langton et al paper. We do appreciate this heads-up and opportunity to comment.

We wanted to raise with you our grave concerns about this article as it is clear to us that the methodology has fundamental scientific flaws.

The authors have failed to take into account the temporal nature of the roll-out of culling, only considering a comparison of culled and non-culled areas each year. Their statistical approach would only work if all culling had started simultaneously which is clearly not the case. This means the underlying basis for defining their null hypothesis is incorrect. Merging the data each year irrespective of when culling was initiated is masking the true effects of culling which can take years to manifest, and also fails to account for the relatively higher incidence of bTB in newly recruited cull areas compared to those remaining uncultured. The latter results in a constantly changing uncultured area which has not been taken into account making figure 3 highly misleading. Moreover, there is an error in at least one of the statistical formula presented, and correlating group level observations with no appreciation for confounding factors makes their inferences highly susceptible to errors (the so called "ecological fallacy"). These numerous fundamental errors may reflect a lack of epidemiological and statistical expertise of the authors, and unfortunately brings into question the peer review and acceptance process that has occurred to date.

We appreciate that these issues may have already been brought to the attention of the editorial board during the peer review process, but the decision was taken to publish in the current form regardless. In this case we would strongly request our comments are published as a research comment in the same edition of the journal alongside this paper, to make clear the errors in the methodology and demonstrate how accounting for the factors explained above using the same publicly available data presents a very different picture.

If these errors were missed during peer review, another round of review with more emphasis on the epidemiological and statistical expertise may highlight these errors to the authors. If you do not want further peer review then we would still request that our comments are published as a research comment in the same edition of the journal alongside the paper.

If published as it currently stands we would be concerned, and honestly saddened, that this would reflect badly on the BVA and the Vet Record and in turn the scientific rigour of the British veterinary profession which they represent. We would hope that any accompanying editorials consider these methodological flaws when making comments about the impact of policies to control bovine TB, and the need for high quality science to inform a balanced debate over badger culling which we appreciate to be controversial for many. At present, we can see no justification for publishing this article in the current form but ultimately that decision rests with the editorial board of Vet Record.

I hope that is helpful.

Best wishes,
Ele