

# The effects of the first 2 years of badger culling in Gloucestershire and Somerset

*A summary of Brunton et al (2017)*

In the later part of 2017 a paper was published looking at the effects of the Somerset and Gloucester pilot badger culls on the incidence of TB in cattle.

**Brunton et al. (2017) Assessing the effects of the first 2 years of industry-led badger culling in England on the incidence of bovine tuberculosis in cattle in 2013–2015. Ecology and Evolution**

## What did the research involve?

The pilot cull areas have no designated matched control areas without culling (as in the RBCT). Instead thousands of potential comparison areas were selected and then ranked as to how similar they are to the pilot areas (with regard to herd size, TB incidence and other factors relevant to TB risk) and then the top ten areas (most similar to the cull areas) were selected. So for each pilot area you have 10 matched areas which can be used to compare cattle TB incidence to the cull areas. The study only looked at changes in cattle TB in **years 1 and 2** of the cull. Further analyses showing the longer term effects have not yet been published.

## What were the results?

- A simple model (similar to the analyses used in the RBCT) comparing cattle TB incidence in the pilot areas to the 10 matched areas found essentially no effect of culling (except for a slight decline in Gloucester in year 1).
- A more complex analyses was also conducted which contained other variables (e.g badger density, proportion herds which are dairy, levels of historical culling, farm fragmentation etc), to account for differences between areas (as they weren't exactly the same) to try and get a clearer estimate of the effect of culling.
- **The complex analysis estimated a 21% reduction in cattle TB incidence in the Somerset cull area and a 58% reduction in Gloucester (relative to the comparison areas).**
- **This analysis also found a 38% increase in the 2km buffer region surrounding Somerset area, but no increase surrounding the Gloucester area.**

## **BUT – it's important to stress that the authors of the paper are quite cautious with the interpretation of these results, for several reasons:**

- It's still quite early (only data from years 1 & 2) and no real benefit is expected until later in the process (which was the case with the RBCT)
- The pilot cull areas were not randomly selected – the areas, farms etc targeted might not be representative of the wider landscape, so it is unclear whether similar results would be expected in other cull areas.
- Culling isn't the only intervention in these areas (e.g there's also 'farm-level risk management advice' although the effect of this is unclear)