New Scientist

COMMENT 14 September 2017

Killing thousands more badgers won't eradicate TB in cattle

An extended badger cull in England to try to curb bovine TB is a poor decision. It's time to call off the guns, says ecologist **Rosie Woodroffe**

The decision to expand badger culling as a key plank of the UK government's strategy to wipe out tuberculosis in cattle is disappointing and flies in the face of evidence that it won't eradicate the disease.

This isn't just a continuation of the previous cull, but an expansion. Up to 33,000 badgers are set to be killed in parts of England over the next six weeks under licences granted to groups of farmers. Culling now covers over 8000 square kilometres of farmland.

Several countries have eradicated bovine TB, which can devastate cattle farm businesses: infected animals have to be slaughtered and movement of livestock is restricted for months or years until the herd tests clear. In the UK, however, badger populations have become infected, and can transmit the disease back to cattle. To permanently eradicate TB, policies need to clear it from the badger population as well as cattle. Killing badgers seemed like an obvious solution, until a large-scale randomised field trial revealed the approach's limitations.

The trial showed that culling led badgers to roam more widely, increasing transmission within their own population and infecting cattle over wider areas. Efficient, well-coordinated culling has the potential to somewhat reduce cattle TB inside large cull zones, but this comes at the cost of increased TB on adjoining land. Small, patchy or inefficient culls can worsen the problem. Neither form of culling can eradicate the disease, because both increase TB within the badger population and spread infection to new areas.

The UK government has seen no clear benefits from three years of farmer-led culling in England. Its primary analyses suggest that TB in cattle isn't significantly lower in two culled areas than in unculled comparison areas. A third site, where culling started later, seems to have experienced more cattle TB in the first year of culling than in the three preceding years.

Increasing TB

A secondary analysis, on a smaller dataset, suggests that culling might be reducing TB inside cull zones and increasing it on adjoining land, as in trial culls, but these results were fragile enough that its authors cautioned "it would be unwise to use these findings to develop generalizable inferences about the effectiveness of the policy".

In a BBC interview, the government's chief vet confirmed that the decision to expand farmer-led culling wasn't based on evidence showing that this method had reduced cattle TB so far.

The uncertainty over benefits contrasts with the costs. The culls cost UK taxpayers over £5 million in 2016 alone. Their scale means that the environmental impacts of removing the UK's largest extant carnivore cannot be ignored; previous culls have been shown to double fox numbers and affect several other species.

Badgers also pay a cost. Concerns that shooting causes an unacceptable level of suffering to badgers led the British Veterinary Association to withdraw its support for the approach.

Badger vaccination is a promising alternative, which is cheaper than culling as well as having smaller impacts on the environment, badger welfare and rural communities . Yet this approach isn't being supported or trialled in areas with a high risk of cattle TB, where it might be beneficial.

Moreover, with just 6 per cent of herds estimated to catch TB directly from badgers, focusing on better control of cattle-to-cattle spread is likely to be more successful than any form of managing badgers.