

Attacks on Sheep by Dogs and Wildlife

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The research comprised the first large-scale representative survey on this topic in Scotland (a mixed-mode online and telephone survey); followed by qualitative research to gain further insight. It explored the prevalence of attacks; the impact on sheep; the financial, time and emotional impacts on farmers; and views on prevention and mitigation measures. 1,931 sheep farmers took part in the survey and five focus groups were held across the country.

Main findings

- 14% of sheep farmers said that dogs had attacked or chased their sheep in the previous 12 months. These farmers reported an average of 3.5 separate incidents over that period. On average, each incident resulted in 1.58 sheep being killed, 0.51 having to be destroyed, 1.72 being injured, and 28.04 being stressed but physically uninjured.
- 37% of sheep farmers reported that their sheep had been attacked, chased or preyed on by wildlife in the previous 12 months. These farmers reported an average of 9.4 separate incidents over that period. The effects on sheep varied widely by the predator species, but on average, each incident resulted in 2.94 sheep being killed, 0.9 having to be destroyed, a 1.3 being injured, and 6.3 being stressed but physically uninjured.
- The average cost to farmers was £697 per dog attack and £392 per wildlife attack. In addition, farmers spent an average of five and a half hours dealing with each incident (e.g. dealing with injured sheep and investigating the attack).
- 80% of farmers said the most recent dog attack had upset them a great deal/ quite a lot, and 70% said the most recent wildlife attack had affected them in this way.
- There was strong support among farmers for public education campaigns about the risks dogs pose to sheep; for increasing the penalties for failing to have a dog under control; for requirements to keep dogs on leads within defined areas; and for greater powers to remove dogs from those who fail to control them.
- Farmers' suggestions for preventing, or at least reducing, wildlife attacks were very much focused on controlling numbers of the predatory species that were problematic in their area. They were keen to point out that they did not wish to eliminate species that were causing problems – but to achieve what they would judge to be a better balance.

Background

Dog attacks and predation by wildlife on sheep are issues of concern in several respects. Not only do such incidents cause obvious suffering to sheep, they have a financial, emotional and time impact on farmers.

A suggestion that attacks may be increasing has sparked heightened publicity around the issue – particularly in relation to dog attacks and a multi-agency campaign¹ to reduce dog attacks by the Scottish Partnership Against Rural Crime (SPARC). Emma Harper, MSP, has proposed a bill² to increase penalties and to provide additional powers to investigate cases of livestock worrying. However, the existing evidence does not provide an adequate basis for assessing the true scale of the issues, or for showing the potential contributing factors or impacts that can effectively inform the development of appropriate responses.

The Scottish Government therefore commissioned a large-scale, representative survey of sheep farmers and follow-up qualitative research to provide up-to-date and robust data on the issues.

Methods

The research comprised an initial desk review; a large mixed-method online and telephone survey of sheep farmers; and follow up qualitative research with sheep farmers.

The main purpose of the desk review was to provide an overview of the findings of previous related studies, to inform the focus and design of the main stage of fieldwork, including identifying any gaps in the existing literature.

A representative sample of 9,148 sheep farmers were selected to take part in the survey, identified through a combination of the Scottish Government's Agricultural Census data and other RPID administrative data. Farmers were sent a letter inviting them to take part online, and a telephone survey targeted those who had not responded online or who indicated they would prefer to take part by telephone. A total of 1,931 sheep farmers took part between 7 May and 9 June 2019 and the overall response rate was 21% – which is high for a survey of this nature.

Follow-up qualitative research was conducted with 23 survey respondents who had recent experience of attacks, through five small discussion groups which were undertaken face-to-face in Inverurie, Moffat and Stirling, and by telephone with farmers based in Argyll & Bute and the North-Western Highlands & Islands. The purpose was to explore some of the topics covered in the survey in greater depth and, in particular, the emotional impact of attacks and views on potential mitigation measures and policy interventions.

¹ <https://www.scotland.police.uk/whats-happening/news/2019/january/sparc-launches-extended-livestock-worrying-campaign>

² <https://www.parliament.scot/parliamentarybusiness/Bills/111027.aspx>

Prevalence and impact on sheep of dog attacks

Over half of farmers (51%) reported having ever experienced an attack on their sheep by dogs and 14% reported that dogs had attacked or chased their sheep in the previous 12 months. These farmers indicated that they had experienced an average of 3.5 separate incidents over that period. Details they provided of their most recent incident suggests that, on average, each incident results in 1.58 sheep being killed, a further 0.51 having to be destroyed, a further 1.72 being injured, and 0.34 ewes aborting. Beyond the physical effects on sheep, each incident led on average to 1.02 instances of mis-mothering and 28.04 sheep being stressed but physically uninjured.

Factors associated with a greater likelihood of experiencing a dog attack were:

- Larger flocks
- Sheep on fully open land (with no inbye) or open land with all/some lambing in bye
- Having a track or road which is regularly used by dog walkers close to any of the sheep
- Being located in Lothian or East Central Scotland.

Prevalence and impact on sheep of wildlife attacks

Overall, 64% of all sheep farmers in the survey indicated that, at some point, their sheep had been attacked, chased or preyed on by wildlife (animals or birds other than dogs) and 37% of sheep farmers said that their sheep had been attacked, chased or preyed on by wildlife in the previous 12 months. These farmers indicated that they had experienced an average of 9.4 separate incidents over that period. The impact on sheep and the nature of injuries clearly varies depending on the species of wildlife involved, but details farmers provided of their most recent incident suggests that, on average, each incident results in 2.94 sheep being killed, a further 0.9 having to be destroyed, a further 1.3 being injured and an average of 0.15 ewes aborting. Beyond the physical impacts on sheep, on average each incident resulted in 0.35 instances of mis-mothering, and 6.3 sheep being stressed but physically uninjured. Respondents were asked not to include the scavenging of dead sheep when reporting the numbers affected. However, it is not always easy to tell whether a sheep was already dead/dying, so it may be that some of those reported as having been killed had already died from some other cause. Similarly, some of the sheep preyed on (particularly young lambs) may have been relatively weak and may not have survived anyway.

Factors associated with a greater likelihood of experiencing a wildlife attack were:

- Larger flocks
- Sheep on open land with all/some lambing in bye
- Being located in East Central Scotland, Argyll & Bute, Ayrshire or Dumfries & Galloway. There were fewer attacks in North East Scotland and Eileanan an Iar than elsewhere.

- Being located in a remote rural area rather than an accessible rural area or a very remote rural area

Impacts on farmers

Overall, sheep farmers perceive wildlife attacks as a bigger problem than dog attacks: 48% said wildlife attacks were a big/moderate problem for them personally compared with 25% for dog attacks. This, at least in part, reflects the greater prevalence of wildlife attacks.

Beyond the suffering to sheep caused by attacks, which present a clear animal welfare issue, this study also provides data on the time, financial and emotional impact on farmers.

Farmers typically spent around 5 and a half hours dealing with each incident (for both dog attacks and wildlife attacks). The most time-consuming aspects were treating injured sheep and investigating the attack. Using agricultural wages to provide a notional cost of this time, the average time cost of each dog incident is £50.33, while the average time cost of each wildlife incident is £51.08.

In addition, and excluding time costs, the average financial cost of each dog attack to farmers was £697.33, while the average cost of each wildlife attack was £391.82. The biggest costs were the value of the lost sheep and (for dog attacks) the value of aborted lambs.

This study also shows the considerable emotional impact of some attacks on farmers – an aspect on which there has been very little previous research. Eighty per cent of farmers said the most recent dog attack had upset them a great deal or quite a lot and 70% said the most recent wildlife attack had upset them a great deal or quite a lot. Beyond the immediate distress at seeing and dealing with their sheep's injuries, farmers described the loss of their livestock as "soul-destroying", explaining this with reference to the hard labour that goes into nurturing their sheep, and the pride they take in this.

Generally speaking, attacks by dogs tended to incite a stronger emotional response among farmers than those by wildlife. There was a greater sense of anger and frustration because they felt such attacks were not inevitable and were attributable to the irresponsibility of the humans involved. However, participants were also keen to differentiate between the effects of wildlife species such as foxes which they could control, and protected wildlife species such as eagles and badgers which they could not control. While the former were most common, it was the latter which bothered farmers the most. Participants conveyed a sense of great frustration and helplessness where they were affected by wildlife species which they had no legal right to control.

Preventing dog attacks

There are two main types of dog incident: those involving dogs belonging to visitors to the area who are with their dogs at the time, and those involving dogs owned by local residents which are allowed to roam freely and are unaccompanied at the time. Somewhat different approaches may be needed to tackle each type of incident.

There was a belief that farmers and dog owners tend to have very different ideas about what dog behaviour constitutes a risk to sheep. There is thus a need for more public education campaigns which inform dog owners about the risks that all dogs can pose to sheep, about sheep behaviour and reactions, and the impact on sheep (particularly pregnant ewes) of what might seem relatively minor incidents. Related to this, the qualitative research revealed a considerable amount of confusion among farmers about what, if any, signage was permissible in light of the Land Reform (Scotland) Act 2003 (which farmers tended to refer to as the 'right to roam'). Clarity and advice on this issue would be beneficial, perhaps from SPARC or other organisations.

There was strong support among farmers for increasing the penalties for failing to have a dog under control; for requirements to keep dogs on leads within defined areas; and for greater powers to remove dogs from those who fail to control them.

The findings indicate that only around a third of dog attacks are currently reported to the police. The qualitative research revealed very mixed experiences of the police and courts' response to attacks and, consequently, about whether it was worth reporting an incident. There was a perception that the level of understanding of the problem, and the extent to which it was prioritised, varied by area and by individual officer. This suggests a need to encourage farmers to report incidents, to raise awareness of the issue among police officers and to improve the consistency of the police response.

Preventing wildlife attacks

Farmers' suggestions for preventing, or at least reducing, wildlife attacks were very much focused on controlling numbers of the predatory species that were problematic in their area. They were keen to point out that they did not wish to eliminate species that were causing problems – but to achieve what they would judge to be a better balance.

There was a perception that the Scottish Government and other relevant agencies (Scottish Natural Heritage in particular) either did not understand the scale and impact of the problems, or prioritised other interests. This led to a considerable amount of both frustration and cynicism.

There is clearly a potential tension here between the interests of sheep and sheep farmers and the desire to protect and enhance the diversity of wildlife species. The insights from this study on the impact of wildlife attacks can help inform what must be an ongoing dialogue.



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St Andrew's House
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ISBN: 978-1-83960-369-3 (web only)

Published by the Scottish Government, December 2019