Introduction

Livestock worrying occurs when dogs attack or chase livestock, and also describes dogs simply being at large in a field containing livestock (Dogs (Protection of Livestock) Act, 1953). Under this act if a dog worries livestock the person in charge of the dog is guilty of an offence and may risk prosecution. Owners may also be liable to pay compensation to farmers for livestock deaths or injuries (Animals Act, 1971). Farmers may also shoot dogs which are attacking or chasing livestock (Animal Act, 1971). Worrying can have a significant impact on livestock as pregnant ewes may abort lambs and worrying can cause significant injury, mis-mothering, suffering and even death (Phythian et al., 2011; National Sheep Association, 2016). From the farmer’s perspective, attacks on livestock also cause various problems including
stress, anxiety, concerns about reduced animal welfare and financial losses (National Sheep Association, 2016).

Livestock worrying has been frequently noted in past years within the UK (e.g., Ainsley, 1968) and to date continues to remain commonplace (Stocker et al., 2015). A general increase in the annual incidents of dog worrying was recorded by police forces from 2011-2015 (e.g., 2011: 691 cases; 2012: 738 cases; 2013: 1074 cases; 2014: 1002 cases; 2015: 1069 cases) (National Sheep Association, n.d.-a). It is important to note that these figures are likely to be lower than the actual occurrence due to under-reporting by farmers (e.g., only 37% of sheep farmers were noted to contact the police every time they have an attack) (National Sheep Association, 2016) and not all cases are evident in police reports (National Sheep Association, n.d.-a). Recently, the National Farmers Union Scotland also stated that an increase in livestock worrying incidents from 93 to 133 occurred from 2014-2015 (NFU Scotland, 2016). The National Sheep Association’s 2016 survey highlighted that 33% of farmers suffered between two and five attacks each year (with some respondents encountering 50-100 or even greater incidents) with on average five sheep being injured and four sheep being killed (National Sheep Association, 2016).

Method

To further investigate the recent incidence of sheep worrying as a result of dog attacks in 2016, the authors searched and reviewed online news articles, through Google news (UK pages only) in local and national news within the UK. The search terms were (‘Sheep’ OR ‘Livestock’) AND (‘Worrying’) AND (‘Dog’).
Results and Discussion

In total 20 news articles were found between January and July 2016. Of those articles which provided specific figures, 217 sheep in total were killed (average 11.4; ranging from 0 – 116 per incident) and 22 sheep in total were injured (average 1.8; ranging from 0 – 6 per incident). Of those sheep injured, the main body locations were the neck, shoulders and legs. In the majority of these cases (15/20) the owners or dog could not be located. For three of the incidents an individual was charged by the police. In two cases the dogs involved were shot as a result of attacking sheep. Of the 20 incidents, seven occurred in March, four in April, four in June, two in February, two in July and one in January. This pattern is possibly representative of seasonal patterns resulting in an increase in dog walking in rural locations, or associated with the presence of lambs which could spur attacks by dogs. A concerning aspect of these news articles is that in four cases it was stated that these incidents of sheep worrying had occurred at the location on multiple previous occasions.

There is a key focus on methods to prevent livestock worrying. The National Sheep Association (2016) found that 64% of sheep farmers put warning posters/signs up on their land stating that dogs need to be kept on the lead. However, previous research suggests that online advice of best practice may vary for dog walkers in fields where livestock are kept (Fraser-Williams et al., 2015). Additional prevention methods and campaigns have included the Kennel Club and the National Farmers Union collaborating to provide information to dog owners (NFU, 2015). This has included the utilisation of signs and posters informing walkers of the need to place their dogs on a lead. Similarly, the National Sheep Association have also issued guidance for farmers (National Sheep Association, n.d.-b) and provided plastic signs free of charge,
highlighting the need to keep dogs on a lead and noting that permitting dogs to chase
or attack sheep is a serious welfare offence (National Sheep Association, n.d.-c). In
addition, the National Sheep Association, in conjunction with the Sheep Veterinary
Society and Farmers Guardian produced a poster for veterinary surgeries highlighting
that livestock worrying is a criminal offence which may result in fines or prosecution,
the welfare implications for sheep and that the dog may be shot or destroyed (National
Sheep Association, n.d.-c; Stocker et al., 2015). Initiatives such as ‘SheepWatch UK’
have also been set up to record dog attacks on sheep, investigate the cost of such
attacks and aim to educate the public (Sheepwatch UK, n.d.). Despite these efforts,
incidents of sheep worrying are a frequent occurrence.

Owner awareness and understanding of the impact of livestock worrying is a
fundamental factor in preventing these incidents. Despite current campaigns,
continuing education to improve awareness and compliance is needed for dog owners
to ensure that dogs are kept on leads when near to livestock and that owners are
aware of where their dogs are at all times. Further consideration of how best to prevent
sheep worrying would be beneficial. Currently prevention materials tend to
predominantly focus on the dangers of fines and prosecution, and on sheep welfare
(NFU, 2015; National Sheep Association, n.d.-c). While these are important
considerations, increased focus on the dangers to the dog in terms of being shot or
having a destruction order placed on them may be beneficial in increasing owner
concern. Over 305 dogs have been killed by farmers for livestock worrying over the
past six years in England and Wales, with an average of one dog a week being shot
(BBC news, 2016). Whilst dog owners may oppose measures that are perceived to
restrict the freedom of their pets (e.g., Williams et al., 2009), concern over the loss of
their dog may encourage compliance with leashing.

Another method that may encourage greater leashing of dogs around sheep may
relate to strategies that encourage compliance with social norms or pro-social
behaviour. Compliance with social norms can encourage owners to clean up their
dog’s faeces (Webley and Siviter, 2000; Lowe et al., 2014). Dog owners are also more
likely to keep dogs on their leads when they believe others expect their dogs to be
leashed (e.g., Williams et al., 2009). Greater focus on promoting the concept that most
dog owners keep their dogs on leads when walking near sheep, and that doing so is
an important aspect of responsible pet ownership may be of value. Adapting signs to
encourage prosocial behaviour may also be useful. Images of watching eyes can
reduce the occurrence of antisocial behaviour such as littering (Ernest-Jones et al.,
2011; Bateson et al., 2013) and bicycle theft (Nettle et al., 2012). Incorporation of
watching eye images on preventative signs and posters may also be useful in this
context.

A further consideration could involve making dog owners better consider the threat
that their dog poses to the sheep. The National Sheep Association (2016) found that
farmers believed that one of the most common causes of sheep worrying was owners
not thinking that their dog would attack or chase livestock. There is a danger that while
owners may recognise that dogs in general pose a threat to other animals, they do not
believe this to be true of their own dog. Owners may feel more compelled to keep their
dog on a lead when they better recognise that their dog represents a threat to other
animals (Williams et al, 2009). Greater owner education and a focus in preventative
materials on ensuring that owners recognise the dangers posed by their dog to sheep may be beneficial and help to combat the potential belief by owners that their own dog is different and not a threat.

In contrast to sheep worrying, livestock guarding dogs are currently used to protect livestock on farms in a number of countries and have been found to be a highly efficient, environmentally friendly and non-lethal method of protecting livestock (van Brommel and Johnson, 2015; Potgieter et al., 2015). However, to the authors’ knowledge minimal research has investigated the use of these dogs in the UK and how effective they are.

In conclusion, further investigation is needed into methods to prevent livestock worrying. Consideration and testing of the efficacy of new prevention materials and approaches is important. Systematic study of how best to appropriately inform dog walkers of the risks and dangers of worrying, as well as exploration of dog owners’ perception of the likelihood, outcomes and prevalence of worrying is warranted. The death rate of ewes and lambs, as well as the rate of incidence, also needs to be accurately assessed and the economic effects of these rates highlighted within the UK. Assessment of police and local council support provided for worrying would also be beneficial. Further study of worrying could also be undertaken with sheep farmers to investigate this topic in more detail. Gathering information ranging from qualitative interviews into the impacts of worrying on farmers (e.g., both psychological and financial) to in-depth quantitative records of incidents, e.g., such as farm information (size, set-up, security, fencing type, etcetera), location (public paths through/near farm
and distance, footfall), frequency of previous incidents, identification of cause of attack, and prevention methods used will be helpful in elucidating the scale of the problem.

Conflict of interest: None

Reference


Bateson, M., Callow, L., Holmes, J.R., Roche, M.L.R., Nettle, D., 2013. Do images of ‘watching eyes’ induce behaviour that is more pro-social or more normative? A field experiment on littering. PloS one. 8: e82055.


Nettle, D., Nott, K., Bateson, M., 2012. ‘Cycle thieves, we are watching you’: impact of a simple signage intervention against bicycle theft. PloS one. 7, e51738.


SheepWatch UK, ND. A community response to a National Problem. Available at: 


