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exegesis
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Deer Vehicle Collisions Analysis 2008-2021

Deer are large animals that are a potential hazard to vehicles on the road. Each year in the UK alone, it is thought that over 700 people are injured or killed, and over £17 million is spent on vehicle repairs because of Deer Vehicle Collisions (DVCs). In Scotland, increasing deer populations and growth in traffic have led to an increased risk of DVCs.

We continued an analysis of DVCs in Scotland undertaken since 2008, adding data for 2018-2021. 22,753 mapped DVC incidents were analysed for this project, providing an understanding of where DVCs occur and where to target actions to reduce risk.

↑ Deer population + ↑ Traffic = ↑ Risk of Deer Vehicle Collisions

Where do Deer Vehicle Collisions occur?

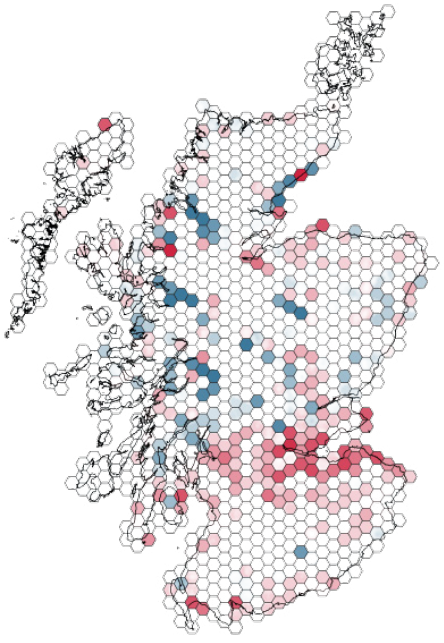
Everywhere, but mainly where deer populations and traffic levels are highest.

- DVCs are increasing most in the central belt. This is likely due to increasing roe deer populations and traffic volumes there.
- The number of DVCs appear to be decreasing in the north, possibly due to mitigation.

When do Deer Vehicle Collisions occur?

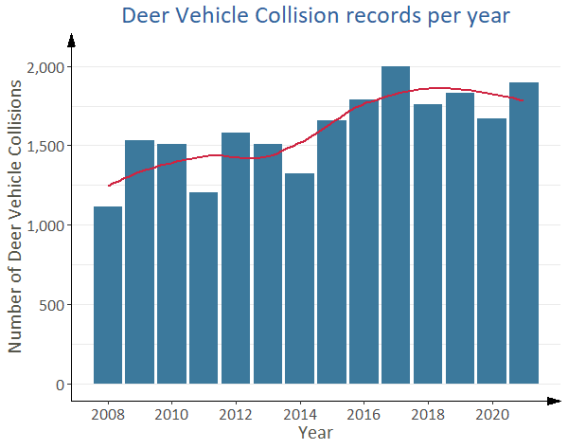
At any time of year, though there are times where the risk is highest.

- The peak months are May and June.
- The peak time is dusk, spread over more hours in winter.



Are there more Deer Vehicle Collisions in Scotland now?

The number of DVCs recorded each year increased from 2008 to 2016. Since 2016 there have been around 1,850 per year. Increases and decreases have occurred locally.



Assessing the risk of Deer Vehicle Collisions on roads

We developed a new approach to identifying the stretches of road where DVCs are most likely to occur.

Based on the risk of DVCs, we shortlisted the 10 highest risk lengths of trunk road. Most were in the central belt and associated with road junctions near woodland.

Road junctions + Wooded islands + Urban locations = Highest DVC Risk

This suggests deer are spending the day resting in woodlands near road junctions and feeding in the surrounding area at night.

What can be done to reduce Deer Vehicle Collisions?

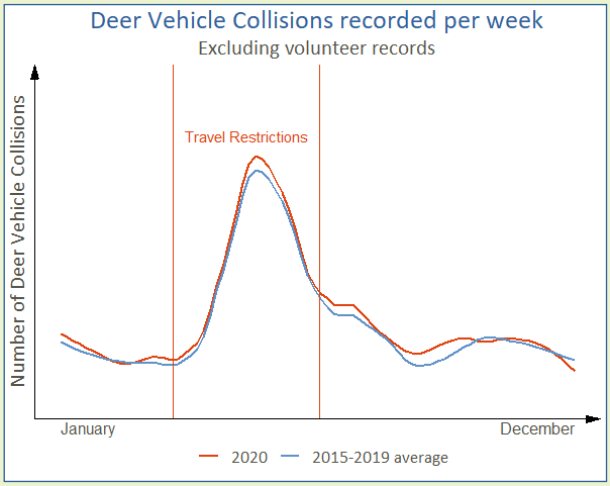
- Variable Message Signs can be used to warn drivers of the general risk of DVCs. Deer warning signs can be installed at high-risk locations and mobile signs can be used where there are no static signs.
- Reducing deer usage of woodland adjacent to high-risk road junctions may reduce DVCs.
- Increased deer culling, though this is only practical in some situations.

Did Covid lockdown reduce Deer Vehicle Collisions?

For three months in 2020, the UK entered a period of lockdown where travelling was severely restricted. Fewer car journeys suggested that there would be a reduction in animal roadkill. We looked at whether the number of DVCs reduced during lockdown.

Fewer DVCs were reported by volunteers, as expected, but there was no overall reduction in DVCs during lockdown. The number of DVCs during lockdown was consistent with the previous five years, as shown in the chart.

Freight traffic was unaffected by lockdown, suggesting that freight traffic is responsible for many DVCs. This makes sense, since domestic traffic is generally smaller and has shorter stopping distances, making it more likely that they could avoid deer on the road.



Primary data suppliers

- Amey
- Autolink Concessionaires (M6) Plc.
- Balfour Beatty
- BEAR Scotland
- British Deer Society
- Forestry and Land Scotland
- Mammal Society
- Scottish Society for the Prevention of Cruelty to Animals

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