

# How effective are wildlife fences in preventing collisions with wild ungulates?

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Wildlife fences are a widely used method for preventing collisions with wild ungulates and other large mammals. In Finland it is estimated that number of ungulate-vehicle collisions in highways can decrease even 80 per cent after erecting fences. This estimate notices only collisions in fenced road sections despite that fencing can have an effect on a larger scale. We compared number of collisions with moose and deer in two cases on a highway and its parallel road in southern Finland before and after highway fencing. In the first case, a road section of 28.1 kilometer on Highway 4 was fenced in 1998. There were 39 collisions with wild ungulates on three years before fencing (1995–1997). At the same time there were 7 collisions on a 25.6 kilometer long, unfenced section on the road number 140 which runs beside fenced sections of Highway 4. After fencing, number of collisions decreased on the Highway 4: there were 17 collisions on three years (1999–2001). At the same time the number of collisions in the parallel road increased to 24. In the second case, a 35.5 kilometer long road section on Highway 3 was fenced in 1993. There were 21 collisions on two years before (1991–1992) and 9 collisions after (1994–1995) fencing. At the same time, there were 10 and 16 collisions, respectively, on a 35.8 kilometer long section on the parallel road number 130. Based on our observations, we conclude that fencing of highways can alter the distribution of vehicle-ungulate collisions. It is even possible that erecting fences don't reduce the total amount of collisions, because animals roam more than normally across minor roads when trying to find routes through fenced highways. To avoid this, we think that it is essential to build wildlife passageways always when using fences.