

Efficiency of odour repellents on free ranging red deer (*Cervus elaphus*) and roe deer (*Capreolus capreolus*): a field test.

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Wildlife-vehicle collisions pose an increasing problem for species conservation and traffic safety as road and railway density and traffic intensity increase. Odour repellents may reduce ungulate browsing damages and has also been suggested as a method to reduce collisions between ungulates and vehicles. Scent-markings applied over short distances have been reported to reduce collisions between moose (*Alces alces*) and trains. Repellents are presumed to make ungulates more alert and vigilant. However, animals tend to habituate to remedies aimed at affecting animal behaviour near roads and railways, e.g. wildlife reflectors and sound scares, and few products have been thoroughly tested. We examined the effect of two odour repellents (Wolf Urine Deer Repellents, Trident, USA and Mota FL, Bayer, DK) on free ranging red deer (*Cervus elaphus*) and roe deer (*Capreolus capreolus*) experimentally. The effectiveness of the odour repellents was assessed by comparing visitation rates to sand bed arenas for a 7 day period before and after application of repellents in small containers at nine arenas. Deer visitation rates were also counted simultaneously at nine control arenas. Neither Wolf Urine nor Mota FL reduced deer visitation rates at the arenas. A quick habituation to the repellents or lowered sensitivity to predator odours due to the lack of natural predators can explain the inefficiency of the tested repellents to the ungulates. We conclude that these repellents have limited effect as a mitigation method to reduce the number of deer-vehicle collisions.