

Operational Field Trial of a Retrofitted Fence to Mitigate Deer-Vehicle Collisions

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ABSTRACT: Deer-vehicle collisions (DVCs) are a safety hazard and a significant financial burden for motorists. Ungulate-proof fencing used in combination with safe crossing structures have proven to be effective at mitigating DVCs. Although a 2.4-m fence has been the standard for ungulate-proof fencing, a 1.2-m fence with a 0.6-m outrigger angled at 45° away from the road and strung with high tensile wire may be a more cost-effective barrier. This design has the additional benefit of working as a one-way barrier, allowing deer to escape the highway if they should become trapped within the fenced right-of-way (ROW). The objective of this study is to retrofit a 1.2-m highway ROW fence with the aforementioned outrigger design to determine cost effectiveness and fence efficacy. Using a before-and-after design this study will compare spatial movements of GPS-collared deer, animal use of safe crossing structures, and breeding season DVCs. Detailed records of fence construction and maintenance costs will also be recorded to determine financial feasibility of retrofitting other existing 1.2-m ROW fences with the outrigger design.

Key Words: deer-vehicle collisions, highway, outrigger fencing

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