



REMARKS

A LOW-COST, HIGH QUALITY SOLUTION TO MITIGATING ROAD MORTALITY IN TURTLES

Road mortality is a major threat to wildlife in Canada. Turtles, a globally declining taxa, are especially vulnerable to being struck by vehicles because of their slow movement and tendency to nest on gravel road shoulders. In order to allow turtles to coexist harmoniously with roads and increasing development, early and effective mitigation strategies must be put in place to prevent them from entering the roadway; roads must be permeable to turtles. Previous initiatives have successfully reduced the risk of road-associated turtle mortality, however these systems are costly and cumbersome, and therefore not well suited for arterial county roads. Using high quality, low cost materials, we have created an effective roadside barrier design consisting of half-cut stainless steel barrels coated in drinking water standard polymer to increase longevity. This design works in combination with pre-existing culverts to form ecopassages, allowing the turtles to cross the road under the pavement and away from vehicles. Furthermore, the design ensures that jump out solutions are integrated reducing the risk of failure. The designs are easy to maneuver and manipulate, and are affordable to install independent of road works, and for municipal budgets. As arterial county roads carry high volumes of traffic and often occur in wetland-dense regions, it is important to have an affordable and effective method of mitigating harm and fragmentation of species-at-risk turtle populations.



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