ECOLOGY AND ENVIRONMENTAL SCIENCE

Driver bias in intentional wildlife-vehicle collisions. MARY R. WILKINSON\* and TERRY L. DERTING, Department of Biological Sciences, Murray State University, Murray, KY 42071.

 Expansive road systems have a negative effect on wildlife populations through increased mortality by animal-vehicle collisions. In the United States, an estimated one million vertebrates are killed each day on public roadways. It is unclear what percentage of the mortality, especially for small animals, is due to intentional collisions. We tested three hypotheses: 1) drivers who intentionally hit wildlife possess species bias, 2) drivers of trucks are more likely to intentionally hit wildlife than drivers of cars and SUVs/vans, and 3) intentional wildlife-vehicle collisions are positively correlated with the distance from Murray city center. A realistic model of a snake and a turtle, and a red cup were used for our study. We selected 45 mph roadways located varying distances from the city center. Models and roadways were randomly selected and data on 50 vehicles were collected per trial. We compared model type, vehicle type, and distance from city center to the number of intentional vehicle hits to determine the presence of driver bias. Snakes were hit by vehicles significantly more often than turtles or cups. The variance between vehicles hitting turtles and cups was not significant. Vehicle type had no relationship with number of intentional hits. Information gained from our study spotlights biases in intentional wildlife-vehicle collisions. Public educational efforts and wildlife crossings structures need to emphasize snakes because the snake model was targeted significantly more often than the turtle model.