Parkway perilous for at-risk species

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Lyn Garrah rode 37 kilometres three times a week to record roadkill on the 1000 Islands Parkway. She and Professor Ryan Danby are hoping their research can help save wildlife. Credit: Queen's University

Queen's research finds more than 16,000 wildlife deaths in a seven-month period on the 1000 Islands Parkway.

Researcher Ryan Danby and his former graduate student Lyn Garrah have found that a higher number of vertebrates are killed on the 1000 Islands Parkway compared to other roadways.

According to their research, more than 16,000 vertebrates are killed from April to October each year along a 37-kilometre stretch of the parkway, which extends from Gananoque east toward Brockville in Eastern Ontario and is home to three species of at-risk snakes and four species of endangered turtles. The wildlife killed include a wide variety of frogs, snakes, birds, mammals and turtles – some of which are classified as species at risk.

"I was surprised by the numbers," Dr. Danby says. "We did a comparison with similar studies and found our numbers were higher than the average road. What we learned is roads are having a huge impact on wildlife, particularly endangered species in the Frontenac Arch. That is very concerning."

One of the main reasons behind the large numbers of road kill is the 1000 Islands Parkway area is one of the main corridors for wildlife moving from Algonquin Park to the Adirondacks. The land surrounding the road is largely undeveloped and the nearby islands function like stepping stones for wildlife migration. All of that leads to an abundance of wildlife, and consequently, roadway fatalities.

"The analysis sheds light on several important things to consider when implementing strategies for reducing wildlife road mortality including under passages, fencing, signage and traffic calming measures," Dr. Danby says. "We want to create eco passages to create safe places for wildlife, and documenting hot spots along the roadway and peak times for travel is important."

The results from this study are now being used to guide a large study of road mortality along Highway 401. Dr. Danby is also involved in this study, which is happening in partnership with the Algonquin to Adirondacks Collaborative.

"There has to be a higher level of interest in this problem," Ms. Garrah says. "We need local groups to speak to government officials and the government to take an interest in this. The missing piece of the puzzle is funding."Ms. Garrah played a key role in compiling the four years of research data. In 2008 and 2009, Parks Canada provided staff to collect the data, but in 2010 and 2011, Ms. Garrah rode the entire 37 kilometres on her bike three times a week, recording the amount of road kill. The result is the most comprehensive wildlife study of its kind.

Ms. Garrah said biking the course three times a week allowed her to get a better feel for the area and also a different perspective on the traffic in the area. "Biking also allowed me to see more of the small-bodied wildlife that died, easily identify hot spots, and also better understand the traffic patterns."

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