

# Wildlife Road Mortality on the 1000 Islands Parkway

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## Introduction

Wildlife-vehicle collisions decrease wildlife populations, especially of species that:

- Move slowly
- Bask on roads
- Travel frequently or long distance over land
- Have low adult mortality

**Turtles and snakes are at high risk of road mortality**

## Study area

The 1000 Islands Parkway:

- Located next to the St. Lawrence River
- 37 km long with 80 km/hr speed limit
- **7 of 14 turtle and snake species in the area are COSEWIC listed species at risk**

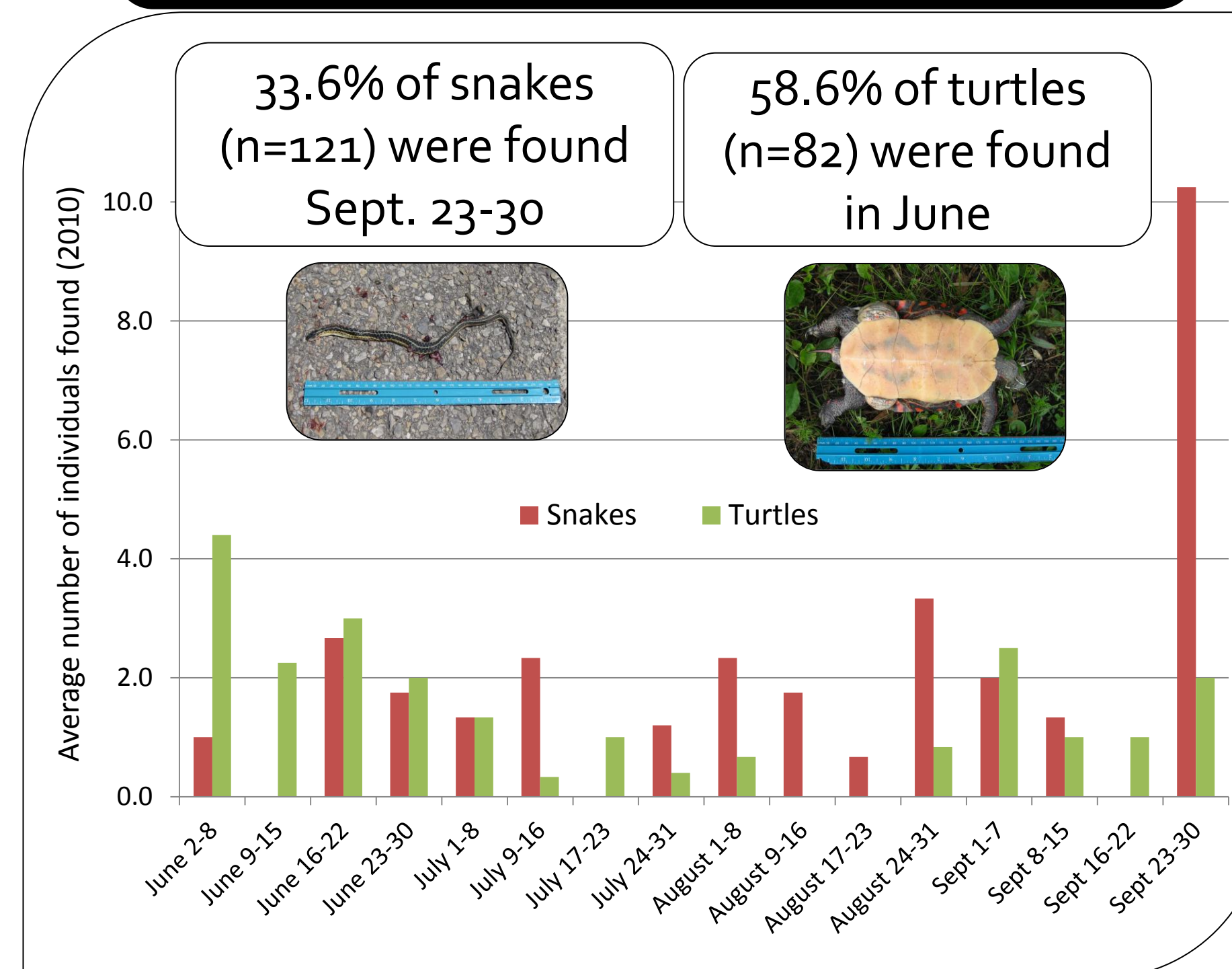


## Methods

- Cycled the Parkway 3 to 4 times per week from June 2<sup>nd</sup> to Sept. 30<sup>th</sup>, 2010 (16 wks)
- Recorded the location and type of vertebrates found dead on the road



## When was peak road mortality?



### Frogs (n=4170)

- 50.5% found in 5 weeks from July 9 to August 16



### Birds (n= 128)

- 84.4% found in June and July



### Mammals (n=126)

- No seasonal relationship



## Discussion

- **Turtles** are killed in June when females seek nesting sites
- **Snakes** are killed on roads in the fall, likely when returning to hibernacula or basking on roads in the cooler season

## Mitigation options

- Create road underpasses
- Build movement-guiding fences with existing culverts
- Road closure
- Reduce road speed limit
- Wildlife crossing signs

Cost



## Future research

- Analysis of wildlife road mortality and traffic, precipitation and temperature variables
- Spatial analysis of road mortality clusters, including effectiveness of wildlife-guiding fences and culverts at reducing road mortality
- Turtle and snake male/female and adult/juvenile ratios

## Acknowledgements

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