## Passive monitoring of cryptic Eastern Ribbonsnakes: A glimpse at behavioral insights with PIT Tag technology

Carter E. Feltham<sup>1</sup>, Lori Phinney<sup>1</sup>, Ben Herringer<sup>1</sup>, Jessica Ferguson<sup>2</sup> and Justin Dagley<sup>1</sup>

Eastern Ribbonsnakes (*Thamnophis sauritus*) are a species at risk in Nova Scotia, and are challenging to monitor due to their cryptic behavior, slender morphology, and the limitations of traditional marking techniques. Passive Integrated Transponder (PIT) tags have proven effective in tracking various snake species globally, and preliminary trials suggest they are well-suited for Eastern Ribbonsnakes. By integrating PIT tags with passive monitoring systems, researchers can observe habitat use, particularly overwintering behavior, without continuous human presence. This approach offers valuable insights into critical habitat requirements, fidelity and survivorship, and supporting conservation efforts. We present initial findings from the first year of deployment of passive monitoring systems at several suspected hibernacula across Nova Scotia.

Keywords: Eastern Ribbonsnake, PIT Tag, Passive Monitoring System, SAR

Oral presentation

<sup>&</sup>lt;sup>1</sup>Mersey Tobeatic Research Institute, Kempt, Nova Scotia

<sup>&</sup>lt;sup>2</sup>Clean Annapolis River Project, Annapolis, Nova Scotia