

Reproductive Ecology of Female Rattlesnakes (*Crotalus oreganus*) in Southern British Columbia

Dana M. Eye¹

Supervisor: Dr. Karl W. Larsen²

Committee Members: Dr. Christine A. Bishop³ and Dr. Shane Rollans⁴

¹ MSc, Environmental Science, Thompson Rivers University, eyed10@mytru.ca, ² Department of Natural Resource Science, Thompson Rivers University, ³ Environment and Climate Change Canada, ⁴ Department of Mathematics and Statistics.

Female reproductive success is critical for the health and persistence of rattlesnake populations. In Canada, a large portion of research on the Western Rattlesnake (*Crotalus oreganus*) has focused heavily on male behaviour (including migration), leaving a large knowledge gap on female ecology and biasing the development of effective recovery plans. One overlooked aspect is the use of birthing or 'rookery' sites by female rattlesnakes. The objective of my research is to locate rookery sites and assess habitat by monitoring movement patterns of reproductive female rattlesnakes. I will locate rookery sites using radiotelemetry and compare these sites to random habitat plots using a matched case-control study design. Vegetation cover, temperature data, and additional features will be assessed at three different spatial scales (1m, 3m, 10m radius plots). The results and outcomes of my research will shed insight into a critical phase of the life history of female rattlesnakes in this region, including our ability to maintain these potentially crucial habitat features on the landscape.