

## QUARTERLY PROGRESS REPORT

Quarter: (circle one) 2020 1st 2020 2nd 2020 3rd 2020 4th

Grant Program, Number and Title: Strategic Implementation of Regional Conservation Priorities for Freshwater Turtles at Risk in the Northeast: RCN Opportunity, Initiative 3. Road Mortality Hotspot Identification, Targeted Road Mitigation Assessment, & Best Management Practices. RCN 17-01 GSA 00033

Contractor: Clarkson University

Project Leader: Tom Langen

Abstract: The purpose of this project is to reduce turtle road mortality through improved mortality “hotspot” identification and mitigation strategies, advancing the goals of the Regional Conservation Priorities for Freshwater Turtles at Risk in the Northeast (Initiative 3), which include: (a) Improving our overall approach to identifying turtle road mortality concentrations, (b) Designing effective mitigation strategies and (c) Assessing the mitigation. Progress in this quarter included revision and completion of a survey instrument, initiation of two hotspot modeling projects, and continued work on the literature reviews. Next quarter objectives include distribution and analysis of results of the survey, continued work on the hotspot models, and continued work on the reviews with the goal of completing some drafts for review and comment. The project is funded through 2022.

Were planned goals/objectives achieved last quarter? No.

Progress Achieved:

The survey on existing road mitigation projects for turtles has not been distributed as planned – quite simply the disruption from covid-19 closures and related crisis work duties prevented me from doing this, as planned. The plan now is to distribute by the first week of August, with responses received and data analysis started in Q3 2020.

I continued on two road-encounter hotspot-modeling projects intended for locating critical road segments for mitigation to reduce mortality and maintain connectivity for the priority turtle species. I have a graduate student working on this project, currently modeling Blanding’s turtle road encounter hotspots. Results are encouraging that these road encounter hotspots can be localized enough for practical use in mitigation. A second project that includes other colleagues at Grand Valley State University (Michigan) and SUNY Potsdam continues, but this far we have no results to report.

I continue to review, evaluate, and synthesize current hotspot identification methods for turtles, and current practices in monitoring turtle road encounters, and continue to work on a draft written report. I continue reviewing, evaluating, and synthesizing current published practices for monitoring effectiveness of mitigation for turtles and other small vertebrates, and continue working on the written review of existing published studies. I have a graduate student working with me to write a review of barrier design and effectiveness for turtles

Difficulties Encountered in Meeting Goals and Objectives: The university has been closed since March 2020, and is only now starting to open for physical As a senior administrator (Interim

Dean) who was part of the covid-19 planning and response team, I was distracted from research progress I had hoped to achieve.

This also set back a planned quarterly check in call with the working group. I will be scheduling it to take place in August

Activities Anticipated Next Quarter:

Distribute a survey the survey-monkey survey on road mitigation practices for turtles. Follow up with second requests, and contacts with informants who want to discuss components of the survey.

Administer, complete, and analyze a survey on habitat and road correlates of focal turtle species road encounters.

Continue to make progress on hotspot modeling projects. The goal is to have some distributable results by Q4 2020.

Continue to review, evaluate, and synthesize current hotspot identification methods for turtles, and current practices in monitoring turtle road encounters. Continue writing. The goal is to have a working draft product to send out for review and comment by sometime in Q3 2020.

Continue to review, evaluate, and synthesize current published practices for monitoring effectiveness of mitigation for turtles and other small vertebrates. Continue writing. The goal is to have a working draft product to send out for review and comment by sometime in Q3 2020. I will then create an instructional template for pre- and post-mitigation monitoring, with a goal for sending both (review and monitoring template) for send out for review and comment Q3 2020.

A RCN Working Group phone meeting will be scheduled for August 2020. A second will be scheduled for the end of October 2020.

Expected End Date: 31 December 2022

Costs:

Total life to date expenses (include this quarter): \$18,002.64

Total Approved Budgeted Funds: \$137,500.00

Are you within the approved budget plan and categories? Yes

**The foregoing information is accurate as of the date set forth below.**

**CLARKSON UNIVERSITY**

By: Tom Langen

Name: Tom Langen

Title: Interim Dean of Arts & Sciences, Professor, Dept. of Biology, Clarkson University

Date: 14 June 2020