

## 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 2023.

Were planned goals/objectives achieved last quarter? Yes.

Progress Achieved:

In November, I spoke with RCN leads on the revised plan for task progress, information exchange, and deliverable completion. In December, I met with the entire RCN team and state reps. I laid out the revised plan for deliverables and a plan for monthly information sharing meetings and updates.

I have had semi-weekly meetings with collaborator Dr. Eric McCluskey on methodologies for identification of hotspots and on survey monitoring methods.

As reported last quarter, 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.

Difficulties Encountered in Meeting Goals and Objectives: As stated in the prior quarterly report, as 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. The situation is now normalizing – in a few months, I will have no more university administrative commitments. I also have contacted a collaborator to help with the tasks. The series of phone calls with the RCN leads and whole team are moving this forward.

Activities Anticipated Next Quarter:

A RCN Working Group phone meeting is scheduled for February (*Locating Priority Locations for Mitigation*) and March (*Pre-Post Mitigation Monitoring*).

I have scheduled monthly progress and information sharing meetings for the next six months. Each has a planned topic focus and deliverable.

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

Continue to make progress on hotspot modeling projects.

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 Q2 2021.

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 Q2 2021. 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 2021.

Expected End Date: March 31 December 2023

Costs:

Total life to date expenses (include this quarter): \$39,341.24

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

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

Date: 24 January 2021