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:

I solicited and received recommended revisions from the working group on a drafted a survey on road mitigation methods for turtles. The survey was formatted into survey monkey, and then reformatted after practice-test administration when it was clear some questions were unclear or responses were cumbersome. It is now formatted and ready to administer. It will be distributed within two weeks of this quarterly report's submission, and responses will be received and data analysis started in Q2 2020.

I initiated 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, and a second project that includes other colleagues at Grand Valley State University (Michigan) and SUNY Potsdam.

I am continuing 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: I was precipitously promoted to Interim Dean of Arts & Sciences at my institution in January 2020. This resulted in considerable administrative duties, starting in late December and continuing. Actions leading up to and resulting in closing the university in March 2020 due to the covid-19 pandemic has resulted in

much disruption of workflow. 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 at the end of this month (April).

The hotspot modeling projects were set-back because of restrictions to work from home, which prevented access to ArcGIS. We are now converting to open-source QGIS.

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.

Draft, 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 Q2 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 Q2 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 Q2 2020.

A RCN Working Group phone meeting will be scheduled for April 2020 (delayed first quarter call). A second (for Q2) will be scheduled for the end of June 2020.

Expected End Date: 31 December 2022

Costs:

        Total life to date expenses (include this quarter): $15,595.64

        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: _____
Name: Tom Langen
Title: Interim Dean of Arts &Sciences, Professor, Dept. of Biology, Clarkson University
Date: 15 April 2020