

NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2015 PROGRESS REPORT

Quarter: (circle one)

2015 1st

2015 2nd

2015 3rd

2015 4th

Grant Program, Number and Title:

Priority Science Grant Program, NALCC 2013-03

Conserving Important Habitat for Amphibians and Other Wildlife: Compilation of Vernal Pool Mapping Efforts across the North Atlantic Region.

Organization: Vermont Center for Ecostudies

Project Leader: Steve Faccio

Abstract: Please provide a short (1-2 paragraphs) abstract that addresses EACH of the following: the objectives of your project, accomplishments to date, future plans and timelines with an estimate for when the project will be completed.

This project has four primary objectives:

- 1) Compile a comprehensive database of vernal pool locations;
- 2) Describe the vernal pool mapping and verification approaches currently being employed in the region;
- 3) Develop a remote sensing method using LiDAR to efficiently identify potential vernal pool locations;
- 4) Prioritize areas for future vernal pool mapping.

During the last quarter we completed the Vernal Pool Data Cooperative database, which now consists of over 59,000 records. Data have been received from cooperators in 8 states and two Canadian Provinces (VT, MA, MD, ME, NH, NJ, NY, VA, Nova Scotia and Quebec's Gaspé Peninsula). In addition, in conjunction with the University of Vermont Spatial Analysis Lab, we completed developing a remote-sensing model using LiDAR/OBIA to identify potential vernal pools. The final report, database, and spatial datasets were submitted and subsequently revised based on North Atlantic LCC comments. The end date of the project has been extended to June 2016 to allow for additional submissions of vernal pool locations to the Vernal Pool Data Cooperative database.

Were planned goals/objectives achieved last quarter?

Yes (see planned and accomplished goals/objectives in matrix below).

Progress Achieved: (For each Goal/Objective, list Planned and Actual Accomplishments)

Goal/Objective	Planned	Accomplished by 31 Dec.
<i>Goal 1 - Compile a comprehensive dataset of vernal pool locations in the NALCC region, including potential and verified pools.</i>		
Assemble project steering committee and hold first conference call	X	X
Plan and host regional workshop at NE Natural History Conference	X	X
Present oral paper at NEAFWA Conference	X	X
Build database to archive geospatial and associated attribute data	X	X
Build a metadata library	X	X
Host workshop at NEPARC meeting (western NY)	X	X
Receive and archive data into database; proof and complete metadata	X	ongoing
Host regional workshop in mid-Atlantic region	X	X
Provide vernal pool data to NALCC	X	X
<i>Goal 2 – Compile and describe the various mapping and certification approaches currently being employed in the region</i>		
Identify and review all coordinated mapping projects	X	X
Prepare review document	X	X
<i>Goal 3 – Develop a method to identify potential vernal pools using Light Detection and Ranging (LiDAR) technology and object-based image analysis (OBIA)</i>		
Compile vernal pool and LiDAR data for NJ and VT	X	X
Conduct preprocessing of LiDAR and other (NHD) data and imagery	X	X
Define characteristics of vernal pools in LiDAR	X	X
Prototype OBIA expert system	X	X
OBIA system development	X	X
Evaluation and Accuracy Assessment	X	X
Reporting	X	X

Difficulties Encountered:

NA

Activities Anticipated Next Quarter:

1. Continue to solicit and archive vernal pool location data/metadata into the database as they are received from cooperators.
2. Conduct webinar for NALCC/FWS Regional office

Expected End Date:

June 15 2016

Costs:

Total life to date expenses (include this quarter): \$96,230.14

Total Approved Budgeted Funds: \$100,000

Are you within the approved budget plan and categories? Yes.

Signature

A handwritten signature in cursive script, appearing to read "Steven Paul".

Date: January 30, 2016