

NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2014 PROGRESS REPORT

Quarter: (circle one)

2014 1st

2014 2nd

2014 3rd

2014 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: Steven 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; and 4) prioritize areas for future vernal pool mapping. During the first quarter we assembled a project steering committee consisting of seven individuals from academia, state agencies, and NGOs, each with a strong background in vernal pool ecology, conservation, and associated regulatory issues. We also planned and hosted a half-day workshop to introduce the North Atlantic Vernal Pool Data Cooperative (VPDC) and provide a forum for participation in its development. Held in conjunction with the Northeast Natural History Conference in Springfield, MA, this successful workshop was attended by more than 30 individuals, and included presentations, discussions, and working breakout sessions. In addition, an oral presentation on the VPDC was presented at the NEAFWA Conference in Portland, ME.

Future plans include hosting a similar workshop in the MD/DE region during the summer to encourage participation and solicit feedback from colleagues and potential partners in the mid-Atlantic region. We also plan to provide a project update and solicit feedback at the NEPARC Annual Meeting in Aug. We will also begin to build the database and metadata library that will archive contributed data. At this point we anticipate completing the project by Dec. 2014.

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 15 Apr. |
|--|----------------|--------------------------------|
| <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 | |
| Build a metadata library | X | |
| Host workshop at NEPARC meeting (western NY) | X | |
| Receive and archive data into database; proof and complete metadata | X | |
| Present a draft of the VPDC framework for review at the fall meeting of the NE Fish and Wildlife Diversity Technical Committee (pending an invitation) | X | |
| Provide vernal pool data to NALCC | 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 | |
| Prepare review document | 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 | |
| Prototype OBIA expert system | X | |
| OBIA system development | X | |
| Evaluation and Accuracy Assessment | X | |
| Reporting | X | |

Difficulties Encountered:

Nothing of consequence.

Activities Anticipated Next Quarter:

- 1) Incorporate feedback from the workshop into planning and development of VPDC
- 2) Begin to build database and metadata library
- 3) Explore need for July workshop for mid-Atlantic region
- 4) Identify and review all coordinated mapping projects
- 5) Define characteristics of vernal pools in LiDAR
- 6) Update steering committee on progress and seek feedback during conference call

Expected End Date:

December 2014

Costs:

Total life to date expenses (include this quarter): \$9,005.62

Total Approved Budgeted Funds: \$100,000

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

Signature:

A handwritten signature in blue ink, appearing to read "Shawn D. [unclear]".

Date: 15 April 2014