

2021 PROGRESS REPORT

Quarter: (circle one)

2021 1st

2021 2nd

2021 3rd

2021 4th

Grant Program, Number and Title: RCN; GSA 00070; Communication & Project Support for Xeric Habitats for Pollinators

Organization: Strategic Stewardship Initiative, 110 Chambers Alley, Boalsburg, PA, 16827

Project Leader: Elizabeth Crisfield

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.

The Xeric Habitats for Pollinators project aims to improve habitat management at sites where this unique habitat type can still be conserved in support of rare bees and lepidoptera that are closely associated with well-drained, fire adapted conditions.

This contract supports the project by ensuring that the monitoring and habitat management components of the project are coordinated so that the data available in July 2022 allows the data analysis team to answer the key research questions by the end of the project in December 2023. With the analysis in hand, we also need to provide products in several formats to ensure at site managers have access to the lessons learned from this project. Furthermore, data generated by this project should be available to researchers interested in understanding species' ranges and community diversity for bees and nocturnal moths.

To meet these goals, the outline below explains how SSI supports the project through coordination and communication, data and monitoring components, and best management practices and other products.

Were planned goals/objectives achieved last quarter?

Yes. As planned, this spring I communicated regularly with the lepidoptera team which began site visits at all sites. I worked with several sites to determine whether monitoring and management needs could be contracted and provided match documentation and projections for Pennsylvania. I posted updated protocols and specimen labels to the website. I researched the most likely soil conditions that define habitat requirements for soil-nesting bees, and then began to extract those variables at buffer areas around each bee transect. I also analyzed existing habitat classifications to study what makes a xeric habitat "xeric", explored the extent to which our sites classify as barrens habitats, and where else in the northeast there are barrens habitats that are not participating in this project.

Please see the detailed time sheet for specific activities.

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

This outline matches the contract scope of work. Hours in blue parenthesis track the actual cumulative vs. the estimated effort provided in the contract scope of work. Narrative assessment of progress toward these project components is provided above.

- a. Coordination and Communication (52/219 hours)
 - i. Calls and correspondence with John Heilferty and the sites as needed
 - ii. Maintaining the website and project mapping
 - iii. Hosting calls in February 2021, Fall 2021, Spring 2022, and at the end of the project

- b. Data and Monitoring Components (136/305 hours)
 - i. Calls and correspondence with bee, lepidoptera, and vegetation collaborators
 - ii. Maintaining documentation of research hypotheses and questions, and correlations being explored
 - iii. Tracking lepidoptera, bee data, and soil data and making sure it is all getting to Helen and Drew
 - iv. Any other Data and Monitoring challenges that emerge
- c. BMPs and other products (8/250 hours)
 - i. Translating data outcomes to BMPs
 - ii. Summary report of Xeric Sites in the Northeast
 - iii. Coordinating with the Sandplain Grassland Working Group to review BMP recommendations
 - iv. Oversee and guide summary reports of Bees, Leps, and Management Lessons
- d. Administration (2/16 hours)
 - i. Quarterly progress reports

Difficulties Encountered: To be honest, the soil data extract from SSURGO was much more complicated than anticipated and I am still working on that. (I will continue to donate those over-budget hours.) Furthermore, finding reliable subcontractors for monitoring work continues to be a time-consuming aspect of the job, and where we were not able to find contractors, the data completeness or quality has suffered.

Activities Anticipated Next Quarter:

I will work with the bee and lep monitoring teams to make sure efforts are sustained across the sites. I will update the website with 2019 bee results from the bee team, identified xeric sites in the northeast, an analysis of mapped habitat classifications in the northeast, and preliminary results from soil analysis. I will test merge the lepidoptera data that has begun to come in from contractors and test relationships between preliminary bee data and soil variables.

Expected End Date: December 31, 2022

Costs:

Total life to date expenses (include this quarter): \$22,235.14 (total project cost), \$14,386.57 (invoiced funds)

Total Approved Budgeted Funds: \$106,650 (total project cost), \$69,322.40 (invoiced funds)

Are you within the approved budget plan and categories? Yes

Signature: 

Date: July 10, 2021