

2019 PROGRESS REPORT

Quarter: (circle one)

2020 1st

2020 2nd

2020 3rd

2020 4th

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

Organization: Strategic Stewardship Initiative

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.

This fall, I continued to advise the data analysis team led by Helen Poulos, the bee identification and bee trait work of Clare Maffei, and prepare for the upcoming season in which we will add lepidoptera monitoring. My 2020 contract included a significant amount of effort (~80 hours) devoted to data management. That was a strong need this year, but we shifted that workload to a subcontract with Helen Poulos and Drew Barton, which they completed over the summer/fall of 2020. My role therefore shifted from getting that work done, to making sure that work meets the overall objectives of this project. I have spent considerable time on project planning, working within the stated objectives of the project but adjusting how we meet those objectives due to the constraint that sites were not able to implement habitat management in alignment with an experimental plan.

Were planned goals/objectives achieved last quarter?

Mostly. I intended to reach out to sites to solicit budget needs for 2021, but am going to start that now (January 2021)

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

1. Coordination: most of my effort this quarter has been working with other collaborators on the project.
2. Best Management Practices: in consistent work with Clare, we are adding key information to understand how and why these xeric sites are important to solitary bee diversity. I also brainstormed the best format for products with input from Lori Erb and Jen Selfridge.
3. Data Management: I continued to support Helen as she finished her summer 2020 contract and built our geodatabase.

Difficulties Encountered:

None

Activities Anticipated Next Quarter/Year:

Going forward, with an increase in the diversity of monitoring efforts and data generated and recognizing the importance of the transition from site work to analysis in the 4th year of the project, my role will be more scientific coordination between the vegetation, bee and lepidoptera monitoring efforts, and the acquisition of

any supporting data that is needed.

- Science advisement: I will be advising each collaborator to ensure that the results are presented to support habitat management decision-making and to characterize the unique biodiversity of the sites individually and as a set.
- Data Management: Previously I intended to assist with data management and coordinating with sites to get data. That role has shifted to Helen and her team. It is more efficient for her to hire students to enter data, and since she will be doing the statistical analysis, it makes sense for her to organize the data in a way that facilitates the analysis. I will still need to be involved with data management from the standpoint of making sure that Helen gets the bee and lep data in a format that she can integrate into the overall analysis. I am transitioning from ArcGIS to QGIS along with Helen's team to enhance data consistency between the monitoring/analysis teams and to improve products for the website. I am accessing external data sources (Butterflies and Moths of North America and iNaturalist) to hopefully provide some temporal context to the lepidoptera data, for which we will only have 1 year.
- Best Management Practices: I am continuing to explore the possibility of providing Best Management Practices in an interactive format rather than a static guideline. We believe our data allows us to set up guidance in the format *if this condition, then this management strategy*, and we hope to design a novel approach for delivering BMPs. We recognize that while xeric sites share the fundamental characteristics of being well-drained and fire adapted, differences in climate, historic land use, and native vegetation can influence best practices.
- Site Communications: We will be hosting a webinar for site managers and interested parties to explain where we stand with each of the monitoring components and how we expect to use the data that has been provided by sites to develop better Best Management Practices guidance. We will also use this webinar to sustain investment in the project and improve protocol compliance for the 2021 monitoring efforts at sites. Communication with sites occurs throughout the year to coordinate the acquisition of data, the follow-through on vegetation and bee monitoring, the notifications about lep monitoring, and budgetary inquiries.

Expected End Date: December 2020 (this contract); expected to continue in 2021

Costs:

Total life to date expenses (include this quarter): \$23936.62 total (8377.83 match, 15,558.79 invoiced)

4th quarter: Total expenses: \$2604.36 total (911.53 match, 1692.83 invoiced)

3rd quarter: Total expenses: \$9686.25 total (3390.19 match, 6292.06 invoiced)

2nd quarter: Total expenses: \$7695.00 total (2693.25 match, 5001.75 invoiced)

1st quarter: Total expenses: \$3,951.01 total (1,382.86 match, 2,568.15 invoiced)

Total Approved Budgeted Funds: \$40,500 total (\$14,175 match, \$26,325 invoiced)

Are you within the approved budget plan and categories? Yes

Signature:



Date: January 15, 2021