2018 PROGRESS REPORT

Quarter: (circle one) 2018 1st 2018 2nd 2018 3rd 2018 4th

Grant Program, Number and Title: Northeast Association of Fish and Wildlife Agency RCN 2017-02 GSA 00032: "Identification of Pollinator Species in the Northeast"

Organization: University of Massachusetts, Department of Environmental, Amherst, MA 01003

Project Leader: Stephen DeStefano

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.

A standardized pollinator protocol was developed for the 2018 season of the Xeric Grassland, Barren, and Woodland Pollinator Conservation Project anticipated to improve the ability of Northeast states to implement cost-effective habitat management to benefit native pollinators and Regional Species of Greatest Conservation Need that depend on these priority habitats. A network of twelve organizations (state, federal, and not-for-profit), representing eight states (VA, MD, NJ, NY, MA, NH, VT, ME) enrolled to participate in the first year of this project. The sites were located in seven ecoregions within the eastern United States. All participants received the necessary equipment to collect and mail bee specimens to a central lab at the University of Massachusetts-Amherst to be processed and identified. Through a webinar, all participating sites were provided training on how collect bees using bee bowls (pan traps) and hand netting. Each site received a copy of the RCN pollinator protocol to assist in their collection efforts. An undergraduate student was hired as a summer intern to help process bees in the lab. Over the course of the season a total of 3237 bees representing 5 families, 25 genera, and 125 species have been identified to the lowest taxonomic level possible. Baseline bee datasets developed from these surveys will help guide future treatment and management activities to create and restore xeric grasslands, barrens, and woodland communities.

The 2018 season for bee collection is complete. Please see the attached year-end report listing every bee captured in bowls and nets by state, site, latitudinal and longitudinal location, associated vegetation. All bees were identified to the lowest taxonomic level possible with existing keys. Damaged bees were taken to genera.

Were planned goals/objectives achieved last quarter?

Yes

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

- Develop a standardized pollinator protocol was developed for the 2018 season of the Xeric Grassland, Barren, and Woodland Pollinator Conservation Project.

- Enlist participants from state, federal, and not-for-profit agencies to participate in the 2018 pollinator portion of the Xeric Grassland, Barren, and Woodland Pollinator Conservation Project.
- Develop an equipment list and distribute equipment to all participating agencies.
- Two webinars were prepared and presented. One that offered instruction on how to collect bees in nets and bee bowls (pan traps) and one that presented summary results of the season for the project and individual sites.
- Developed a pollinator protocol for the RCN project to coordinate and standardize collection efforts.
- Hired an undergraduate summer intern to assist with processing bees in the lab.
- Processed, labeled, identified, and databased 3237 bees representing 5 families, 25 genera, and 125 species have been identified to the lowest taxonomic level possible.
- Developed baseline bee datasets from these surveys that can help guide future treatment and management activities initiated by the RCN project and participating agencies to create and restore xeric grasslands, barrens, and woodland communities.
- Highlighted rare bee species captured by site that are listed on the SWAP webpage.
- Prepared and submitted a year end report to Elizabeth Chrisfeld, Jon Regosin, and John Heilferty.
- Submitted a database listing every bee captured and identified by state, site, latitudinal and longitudinal location, and associated vegetation.

Difficulties Encountered:
Additional instruction to staff collecting bees at participating agencies on how to collect bees in nets would be helpful. Although it was a very rainy summer, it seemed that net captures were lower than they should have been.

Two summer interns should be hired to process bees.

Sharpie pens should no longer be used to write on Whirlpak bags. The interaction of Sharpie ink and alcohol coated the bees with a soapy film that could not be washed off and interfered with identification.

Activities Anticipated Next Quarter: I will be a co-author with Elizabeth Crisfield a presentation on the Xeric Grassland, Barren, and Woodland Pollinator Conservation Project at 75th NEAFWA Fish and Wildlife Conference in the Pyrogenic Wildlife symposium: Conservation and Management of Pyrogenic Wildlife in the Northeast

Expected End Date:
The bee portion of the 2018 Xeric Grassland, Barren, and Woodland Pollinator Conservation Project is complete.

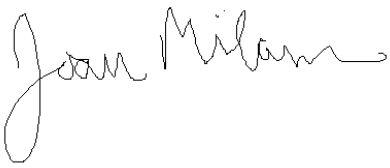
Costs:

Total life to date expenses (include this quarter): $14,568.68

Total Approved Budgeted Funds: $16,000

Are you within the approved budget plan and categories? Yes

Signature:



Date: 6 January 2019