2021 PROGRESS REPORT

Quarter: (circle one) 2021 1st

2021 2nd

2021 3rd

2021 4th

Grant Program, Number and Title: RCN 2 Project 2 Job 1 GSA 00136 Nocturnal moth surveying, specimen ID, and data management.

Organization: Sven the Entomologist LLC

Project Leader: Sven Strnad

<u>Abstract</u>: 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 objectives of this project are to conduct five overnight moth collections at each of four sites in PA and MD during the summer of 2021, identify the moths, and then enter the data into a spread sheet. Supplemental information collected will include weather conditions, a photo inventory of flowering plants near the moth traps, and soil density measurements.

Were planned goals/objectives achieved last quarter?

During the second quarter, the necessary permits, insurance, and equipment were obtained. Area project leaders were contacted, each site was sampled on two occasions, and moth identification and enumeration were begun. Flowering plants (when present) in the area were photographed during each visit and one set of soil densities was collected for each site. A voucher collection has been started and currently has over 125 species. Data entry into the appropriate Excel spreadsheets has also begun.

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

At each site, three moth trap locations were determined and their locations recorded so that each specific location will be sampled consistently in future visits. To date, this has worked well. Sampling trips were planned around the predicted weather and moths were collected each time. Numbers were low in April but increased as the warmer weather arrived. No traps failed or were damaged during that time. No major rainstorms were encountered. One week sampling was scheduled around an aerial gypsy moth control application at Michaux State Forest.

Difficulties Encountered:

Weather prediction can be challenging. As a result, notification of project site managers 7 days in advance of a specific sampling night may not be accurate. Future notifications will now refer to a window of possible sampling nights.

The Sideling Hill sample site has some challenging terrain that makes transporting the heavy batteries required to power the light traps a challenge. As a result, one of the three traps was initially placed at a more accessible location further away from one of the three bee transects located there.

The large numbers of moth species in the samples are taking more time to identify and enumerate than anticipated. As a result, more effort is being put into that aspect of the project in order to meet timelines.

Activities Anticipated Next Quarter:

A third sampling round has been completed during July with one, possibly two, more being completed during the third quarter depending upon weather conditions and trap catch. If need be, the fifth (final) sampling will be conducted early in the fourth quarter. Sample processing and data recording will continue though the next quarter.

Expected End Date:

January 31, 2022

Costs:

Total life to date expenses (include this quarter): \$7,063.72 (=65% of \$10,867.88 total)

Total Approved Budgeted Funds: \$38,000

Are you within the approved budget plan and categories? Yes

Signature: P. Date: 25 July 2021