

# NORTHEAST REGIONAL CONSERVATION NEEDS GRANT

## 2014 PROGRESS REPORT

Quarter: (circle one)

2014 1<sup>st</sup>

2014 2<sup>nd</sup>

2014 3<sup>rd</sup>

2014 4<sup>th</sup>

Grant Program, Number and Title: Distribution and Conservation Status of the Newly Described Species of Leopard Frog in the Coastal NE

Organization: New York Natural Heritage Program

Project Leader: Matthew Schlesinger

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 objectives of our project are to define the distribution, status, field characters, and habitat use of the newly described species of leopard frog (*Rana* sp. nov.) in comparison to that of the southern (*R. sphenoccephala*) and northern leopard frog (*R. pipiens*). We ramped up quickly this past winter to be able to conduct calling surveys for leopard frogs in the southern states starting in February. Given how quickly we needed to get started after funds became available, our project team decided to conduct targeted surveys this first year—in other words, nonrandom and nonsystematic surveys simply to confirm locations of the different species for follow-up sampling. Hundreds of person-nights of calling surveys were conducted across the region in late winter and early spring. These resulted in detections of the new species in many locations, as well as southern and northern leopard frogs. Follow-up sampling to photograph frogs and collect tissue samples for genetic analysis has progressed well, with at least 40 frogs sampled to date. We have monthly conference calls during which we discuss field methodologies and project deadlines.

Sampling will continue through this summer into this fall. We have a project deadline of September for submission of calling data, after which we should be able to provide numbers of calling surveys conducted. (Volunteer match will be submitted after the next quarter as well.) In the fall we will submit tissue samples to UCLA's lab, who will provide genetic confirmation of the species. We will present the project and preliminary findings to the Northeast Wildlife Diversity Technical Committee at their meeting in early September. We will spend the fall and early winter conducting preliminary analysis of data and finalizing plans for the second year of the project. The project is on schedule for completion in winter 2015-2016.

Were planned goals/objectives achieved last quarter?

Yes, planned goals and objectives were achieved, although we changed our sampling strategy for year 1 from an occupancy design (systematic or randomized design) to targeted surveys where leopard frogs of the different species were expected. This change resulted from the primary interests of project participants and the need to be conducting field work one month after project funds were available.

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

All of the objectives below that appeared in our proposal rely on confirmation of species identity via genetics. Since preliminary genetic results will not likely be available until winter 2014-2015, our accomplishments to

date have involved only sampling to address these objectives eventually. Through calling surveys, project participants identified dozens of locations with each species suspected according to the call. Many of these sites have received follow-up visits to photograph frogs and obtain genetic samples. Numbers of surveys will be available in the next progress report, and the number of samples obtained should be available in the next progress report or the one after.

- 1) Determine conclusively which leopard frog species occur presently and occurred historically in the nine states (CT, DE, MA, MD, NJ, NY, PA, RI, VA);
- 2) Refine the northeastern distribution of the new species relative to the two other leopard frogs;
- 3) Refine the conservation status in areas where the new species is already known to be of concern;
- 4) Contrast multi-level habitat associations among the three species; and
- 5) Refine the separation of species via field characters (calls, morphology) to facilitate future inventory, monitoring, and status assessments of the new species without reliance on genetic testing.

#### Difficulties Encountered:

The primary difficulty we encountered was trying to ramp up quickly for field work in February in the southern states when work could start on the project only in January. However, we changed our sampling design to conduct targeted, instead of random or systematic, sampling in the first year. The other difficulty is that leopard frogs can be very difficult to catch. Still, we expect to get a sufficient number of samples and photographs across the range to compare genetics to field markings and calling survey results.

#### Activities Anticipated Next Quarter:

In July-September 2014, we will continue visiting sites where calling surveys detected leopard frogs, and attempting to catch individuals for photography and tissue sampling. We will have two project conference calls, on August 12 and September 9. We will present to the NEWDTC at their meeting September 3 or 4.

#### Expected End Date:

March 31, 2016

#### Costs:

Total life to date expenses (include this quarter): \$14,470

Total Approved Budgeted Funds: \$99,764

Are you within the approved budget plan and categories? Yes

Signature: 

Date: August 13, 2014