

# NORTHEAST REGIONAL CONSERVATION NEEDS GRANT

## 2015 PROGRESS REPORT

Quarter: (circle one)

2015 1<sup>st</sup>

2015 2<sup>nd</sup>

2015 3<sup>rd</sup>

2015 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: 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 kauffeldi*) in comparison to that of the southern (*R. sphenoccephala*) and northern leopard frog (*R. pipiens*). Hundreds of person-nights of calling surveys were conducted across the region in late winter and early spring 2014. 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 for genetic analysis was conducted into fall 2014. The first quarter of 2015 was spent preparing for the 2015 field season and beginning calling surveys in some areas. March 31 was about the midpoint of calling surveys in our large region; calling was winding down in the southern states and yet to begin in the northern states. The remainder of 2015 will see additional sampling to photograph frogs and collect tissue, compilation of all project data, and the beginning of data analysis and writing. 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.

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

On our January 13 conference call, the project team decided that year 2 will focus on additional targeted surveys to fill holes in the known distribution of the three species. The team decided that efforts were better spent on filling these data gaps than on the originally planned occupancy-based surveys to inform estimates of detectability and rarity. Our data will still be able to inform these parameters. In addition, the team decided that fine-scale (i.e., point-of-capture) assessment of habitat differences among the three species would be challenging given the inaccessibility of many breeding wetlands. Instead the project will focus on landscape-level and meso-scale habitat differences.

PCRs for the first 50 frogs are completed and sent out for sequencing. UCLA estimates that results (species IDs) will be available in mid-June.

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 June 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.

- 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.

Project conference calls were held April 14 and May 12. On a field trip on April 18 for the Northeast Natural History Conference we visited the two known sites in Connecticut but were unable to add new locations.

Difficulties Encountered:

No additional difficulties were encountered last quarter.

Activities Anticipated Next Quarter:

From April 1 to June 30, 2015, we will wrap up calling surveys and begin trying to catch frogs for tissue samples and photography and the next whole-team call will be in September.

Expected End Date: March 31, 2016

Costs:

Total life to date expenses (include this quarter): \$56,473

Total Approved Budgeted Funds: \$99,764

Are you within the approved budget plan and categories? Yes

Signature:



Date: May 13, 2015