

NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2012 PROGRESS REPORT

Quarter: (circle one)

2012 1st

2012 2nd

2012 3rd

2012 4th

Grant Program, Number and Title: Grant 2011-07; **ASSESSING PRIORITY AMPHIBIAN AND REPTILE CONSERVATION AREAS (PARCAS) AND VULNERABILITY TO CLIMATE CHANGE IN THE NORTH ATLANTIC LANDSCAPE**

Organization: Association of Fish and Wildlife Agencies, University of Maine (USGS MCFWRU), University of Georgia

Project Leader: Priya Nanjappa

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.

Were planned goals/objectives achieved last quarter? **YES**

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

Objective 1: *Work directly with state fish and wildlife agency personnel throughout the NA-LCC states to gather data toward PARCA criteria review and proposed conservation area identification.*

UGA: Barrett continued to meet with the U Maine team to develop strategies for additional data collection in support of the PARCA placement and associated modeling. **The UGA account is now closed – tasks assigned to UGA below are reassigned to Clemson University with Barrett’s continued involvement, and a new account is in the process of being opened at Clemson University.**

UMaine: Moody has requested and received species occurrence data from across the Northeast including Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, Virginia, and Vermont. Several states have responded that they will be able to share their data sometime after December including New Jersey, Delaware, and West Virginia. The occurrence data received from the states are being assembled into a database so that spatial information can be associated with data. A student employee has standardized the data to ensure common species and county names.

AFWA: Nanjappa continues to assist in working with state fish & wildlife agency personnel to gather data and facilitate data sharing agreements.

Objective 2: *Provide spatially-explicit maps of current and future climatic suitability for priority amphibians and reptiles in the NA-LCC region, and then use these data a) to rank species vulnerability to climate change based projected losses in the species’ ranges, and b) to identify areas within the NA-LCC where either there are high losses of vulnerable species or there is high potential for climatic refugia for priority species, and c) identify species for which this Objective cannot be completed due to gaps in current known distributional data and thus identifies priorities for species data acquisition.*

UMaine: A list of priority species according to the PARCA criteria has been drafted using a list of northeastern reptiles and amphibians and their threat statuses (as described in the previous progress report). Modeled species occurrence data from national GAP (<http://dingo.gapanalysisprogram.com/SpeciesViewer/DownloadData.aspx>) were downloaded where available. Literature review of species distribution models, vulnerability assessment and resiliency is continuing. Climate data (temperature and precipitation) for current and future conditions under three different climate scenarios have been received from Brad Compton, Joanna Grand and Kevin McGarigal at University of Massachusetts. Moody is working with the Maine data in MaxEnt to develop distribution models for reptiles and amphibians species in Maine as a pilot for the larger region.

UGA>Clemson: Barrett has also completed initial climate suitability model building for all species targeted by the PARCA effort that inhabit Maine as part of the pilot effort prior to full PARCA implementation across the NA-LCC. **Also, because he recently took a new position at Clemson University, Barrett has hired a postdoctoral research associate to assist with completion of this project as it continues to move forward.**

This objective is still in progress.

***Objective 3:** Summarize these results with respect to species occurring on lands under current state and federal management.*

UMaine: Data layers containing location of and jurisdictional information for conservation lands have been downloaded (<http://datagateway.nrcs.usda.gov/GDGHome.aspx>) to allow for this future summarization.

This objective is still in progress.

***Objective 4:** Conduct an analysis of candidate PARCAs to help identify those highest priority conservation areas supporting reptiles and amphibians in the Northeast that are not currently protected.*

This objective has not yet been addressed.

***Objective 5:** Incorporate climate vulnerability projections into final PARCA analysis, including a ranking of high priority current and future conservation areas.*

This objective has not yet been addressed.

***Objective 6:** Communicate results to key state, federal, and NGO partners via publications and a Northeast regional workshop.*

UMaine: On 12 December, JJ Apodaca (working with the SA-LCC), Barrett, Loftin, deMaynadier, and Moody had a conference call to continue discussion of the process used to delineate important areas to herp conservation in the southeastern US. Moody presented an introduction to the PARCA project at Maine Department of Inland Fisheries and Wildlife on 20 December.

UGA>Clemson: Barrett has agreed to give a presentation In January on his work to UMaine, and will also be meeting with deMaynadier, Loftin, and Moody.

This objective is still in progress.

Difficulties Encountered:

The team encountered problems with our contacts in New Jersey and Massachusetts thinking our data request overlapped too much with a data request by Steven Fuller's NALCC-funded project. After discussion with Fuller, we clarified the differences between the requests to our contacts but it did add difficulties to our, and likely Fuller's, data gathering. Otherwise, participation by states has varied; most of the states have provided

data but Connecticut, Pennsylvania, and DC have not replied to multiple emails and phone calls. These difficulties may be best addressed with assistance from the NA-LCC to contact the states on our behalf.

Connecticut: Jenny Dickson, jenny.dickson@ct.gov, (860) 424-3011

Pennsylvania: Chris Urban, curban@state.pa.us, (814) 359-5186

DC: Bryan King, bryan.king@dc.gov, (202) 535-2266 **Or** Lindsay Rohrbaugh (herpetologist), lindsay.rohrbaugh@dc.gov, (202) 535-2296

Activities Anticipated Next Quarter:

- 1) (UMaine) finish database of all reptile and amphibian occurrences in the study area including spatial references
- 2) (**Clemson** and UMaine) model species distributions in pilot area and delineate areas of high herp biodiversity in Maine
- 3) (**Clemson**) continue to build climate suitability models for species across the NA-LCC.
- 4) (UMaine) use occurrence data for pilot area to determine where high priority species occur and delineate areas of high conservation concern in Maine
- 5) (UMaine and AFWA) begin scheduling conference calls with stakeholders to introduce project and determine which parts of our process of delineating PARCAs in Maine would benefit from input by stakeholders
- 6) (UMaine) plan working group session for stakeholders at the NEPARC meeting in July 2013
- 7) (AFWA) continue oversight and progress-reporting

Expected End Date: Dec. 31, 2014

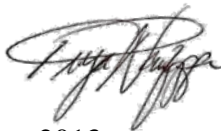
Costs:

Total life to date expenses (include this quarter): \$73,883.47

Total Approved Budgeted Funds: **\$315,902**

Are you within the approved budget plan and categories? **YES**

Signature:



Date: 31 January 2013