NORTHEAST REGIONAL CONSERVATION NEEDS GRANT
2012 PROGRESS REPORT

Quarter: (circle one) 2012 1st 2012 2nd 2012 3rd **2012 4th**

Grant Program, Number and Title: 2010-03 "*Identification of Tidal Marsh Bird Focal Areas in BCR 30*"

Organization: University of Delaware

Project Leader: W. Gregory Shriver

Abstract:
We completed the second survey season of the BCR 30+ / USFWS Region 5 tidal marsh bird inventory and monitoring program and have QA/QC'd all the avian and vegetation data. We have integrated the sampling frame as well as the field sampling protocols with state and federal partners such that all the data from VA – ME is based on the same probabilistic sampling frame and uses the same field protocol. We have finalized SOPs (standard operating procedures) that clearly outline how to access the points within each hexagon (boat launch to use, tides to follow, tidal creeks with deep bottoms, etc.) making access to these points more efficient. We are also generating SOPs for all aspects of SHARP data collection that will be posted on the SHAPR website (www.tidalmarshbirds.org). In the 2011 – 2012 field seasons (April – July) we visited over 1600 points where we conducted secretive marsh bird surveys. In 2011, we surveyed 797 points from New Jersey to Virginia and revisited these same points in 2012. These data will provide the first comprehensive and standardized tidal marsh bird data set throughout USFWS Region 5 that will be used to assess effects of sea-level rise on tidal marsh birds. In 2012, our USGS partner provided an RTK gps unit that can measure the elevation of location to sub-centimeter accuracy. Using this equipment we were able to measure the elevation at 245 locations from NJ – VA. These data will aid in modeling the effects of sea-level rise on tidal marshes. We presented a session and hosted a working group at the Northeast Bird Conservation meeting 2012, Plymouth, MA.

Were planned goals/objectives achieved last quarter? Not completely.

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

1) Identify regional population centers for tidal marsh birds within BCR 30 from New Jersey to Virginia,

>> We've initiated the identification of tidal marsh bird focal areas by developing a pilot study using our data for Delaware, an important state partner. During the fall 2012, we used linear programming to develop a portfolio of land acquisition options based on tidal marsh obligate bird abundance within Delaware tidal marshes (see attachment "Wiest_DEmarshbird_optimization_030213_KK.pdf"). The methodology and results of this analysis provide the framework for conducting similar analyses throughout USFWS Region 5 over the coming year.

2) combine these survey results with existing surveys for the northern states in BCR 30 (New York – Maine) to identify tidal marsh bird focal areas and produce population estimates for all bird species found in the high tidal marsh (including a global population estimate for saltmarsh

sparrow),

>> We continue to work in partnership with the University of Maine and University of Connecticut to coordinate surveys, data collections, field tech. training, protocol development, and data entry for all sampling locations from VA - ME. We hold weekly conference calls and we meet in Connecticut for our annual meeting. All 2011 – 2012 survey data have been integrated, QA/QC'd and summarized.

3) provide all states in BCR 30 with a detailed description of their regional responsibility for tidal marsh bird species,

>> We have submitted our second annual report to all state partners (1 Dec 2012) and the USFWS on 31 Dec 2012 (http://www.tidalmarshbirds.org/?page_id=76). We are continuing to communicate with state partners as we develop a decision support tool to assist in tidal marsh conservation planning.

4) identify the most critical areas for the long-term preservation of the tidal marsh bird community within each state, and

>> We continue to work with state and NGO partners to identify where the data from this project can inform coastal adaptation plans. Specifically, we are collaborating with Blackwater National Wildlife Refuge and their partners to identify specific areas around the refuge where marsh migration may occur. We have also developed a working relationship with USFWS Private Lands in NJ and the Natural Lands Trust to identify sites were sea-level rise adaptation management could benefit tidal marsh birds. We have drafted sampling protocols for monitoring the effects of different adaptation actions and will participate in a USFWS hosted saltmarsh sparrow workshop in May, 2013.

5) relate the regional focal areas to past management actions.

>> We continue to acquire management information from survey sites.

Difficulties Encountered: The timing between the State Wildlife Grant and the RCN grant was never synchronized just that reporting for RCN was on the same schedule as reporting for SWG. In January of 2010, the Saltmarsh and Avian Habitat Research Program (SHARP), applied for these funds, we anticipated, and budgeted for, three field seasons beginning in spring of 2010. Although, our project was awarded funding in 2010, the field season had largely passed as of late July when the funding became available, so field work was not initiated until the following spring of 2011. Over the past 3-years, our partnership has gathered a significant amount of data across a large geographic area and additional time will be necessary to adequately analyze these data before preparing a final report. Consequently, we would like to request an extension (application form to follow). This extension will allow us to complete 3 seasons of data collection on our demographic study plots as originally planned and permit the time necessary to collectively analyze and report the large volume of data. We appreciate the cooperation of RCN in processing this request.

Activities Anticipated Next Quarter:

Over the next quarter we will:

1) Identify tidal marsh areas as hotspots (high abundance areas) for Species of Greatest Conservation Need (SGCN) for the entire Northeastern U.S. (ME – VA; USFWS Region 5) using bird survey data and low and high marsh vegetation data.

2) Evaluate areas adjacent to SGCN hotspots for marsh migration potential using the latest NOAA sea level rise modeling data (NOAA Sea Level Rise and Coastal Impacts Viewer) → Use bird abundance and habitat information (present landscape configuration) to predict future bird hotspots given the predicted movement of marshes.

3) Use optimization models to determine the purchasing potential of future SGCN hotspots (unprotected marsh areas surviving into the future and non-marsh areas that may facilitate marsh migration). Develop a final list of optimal parcels for each state that most efficiently utilizes state conservation funds to purchase areas that maximize marsh conservation benefits and continue to support the long-term persistence of the tidal marsh bird community.

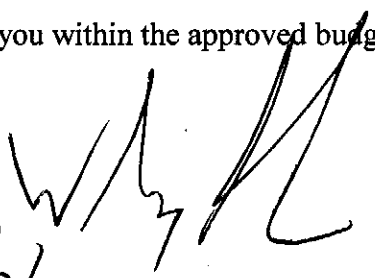
Expected End Date:

Costs:

Total life to date expenses (include this quarter):

Total Approved Budgeted Funds:

Are you within the approved budget plan and categories?

Signature: 

Date: 5/3/2013