

Final Report
South Carolina State Wildlife Grant SC-T-F17AF01249
South Carolina Department of Natural Resources
October 1, 2017 – September 30, 2019

Project Title: Atlantic Coast Joint Venture – Catalyzing Black Rail Conservation Along the Atlantic Coast

Principal Investigator:

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Objective 1:

Develop a Black Rail Conservation Action Plan by 2019. The Plan will focus on habitat delivery and Best Management Practices to stabilize the Black Rail population. Conservation actions will be guided by a Black Rail Conservation Opportunity Area spatial layer, which identifies high priority opportunities for habitat protection and enhancement. These products are urgently needed to guide habitat delivery and stabilize the Black Rail population.

Accomplishments:

- Led and coordinated development of a Black Rail Conservation Planning Workshop.
 - ACJV staff and the Black Rail Working Group coordinated efforts to host a BLRA Conservation Planning Workshop that occurred in Charleston, SC on October 29-30, 2018. Representatives from State, Federal and Academic backgrounds attended. The goals of the workshop were to develop new draft conservation strategies and prioritize the 8 strategies already developed through the Salt Marsh Conservation Business Plan.
- Create a Black Rail Conservation Opportunity Area Map.
 - ACJV organized an Adaptive Management Framework Workshop planned for January 14-15, 2020 in Florida. The focus will be to identify priority research questions and management actions. The adaptive management framework will include field pilot projects to evaluate the effectiveness of management actions. Some of the outcomes will include the development of standardized protocols for surveys and habitat response, creating a publicly accessible database to tack data related to management actions, and developing a modeling framework to inform future adaptive decision-making.
- Develop a comprehensive High Marsh spatial layer for the Atlantic Coast.
 - Development of the high marsh spatial layer for the Atlantic Coast is contracted out through Old Dominion University. They have completed the mapping for the northeast and eastern section of Florida and are 90% finished with the west coast. Completion of the FL work will fill the final gap in high marsh mapping coverage along the Atlantic Coast.
- Develop a comprehensive coastal impoundment layer for the Atlantic Coast.
 - A summer FWS fellow completed the comprehensive coastal impoundment layer during summer of 2018. A total of 750 impoundments covering 121,129 acres were mapped across State and Federal ownership. In addition, 273,987 acres of

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historic rice fields in SC were included. This, combined with the existing impoundment layer for the NE, creates a comprehensive impoundment data layer for the Atlantic Coast.

- Develop a derivative map of black rail priority areas.
 - An Eastern black rail species distribution model was developed by Conway and Stevens using data from 2000-2012 at 2,885 sites. The model will be customized with current survey data and relevant covariates to predict occupancy. The anticipated finish date is March 2020.
 - An Irrigation Mapper Tool will be developed to model irrigation scenarios at the property scale. The model will estimate how much water will be needed to create specific acres of sheet flow on a given slope. The tool will be used to help create habitat for Eastern black rail from NJ south to FL.
- All products generated from the workshop and spatial mapping exercises will be developed into a Black Rail Conservation Action Plan.
 - A draft Black Rail Conservation Plan has been completed and is available upon request.

Significant Deviations: This is a multi-state project that acquired funding from all Atlantic coast states within the Eastern Black Rail range. Funds from this state wildlife grant were used during the 2018-2019 fiscal year. Work will continue and the objective will be completed using funds from other Atlantic coast states.

Estimated Federal Cost: \$18,700.00

Recommendations: Close the grant.

Draft Black Rail Conservation Plan available upon request.