Request for Proposal
from the
North Carolina Wildlife Resources Commission

Assessing the status and distribution of North Carolina birds listed as Species of Greatest Conservation Need

Project Need

From 2021 – 2025, the North Carolina Wildlife Resources Commission (NCWRC) led a statewide North Carolina Bird Atlas. Through breeding and wintering seasons, >2.5 million observations were collected by skilled technicians and >3,000 volunteers. In addition, NCWRC conducted >2,000 point counts across all 937 priority blocks surveyed. Now that data collection is complete, we seek proposals to develop and publish priority data products as outlined in our original NC Bird Atlas project proposal.

This project will produce three broad categories of products: 1) a clean, vetted dataset accessible to NCWRC and external partners for further research; 2) data analysis to estimate fine-scale distribution, phenology, and population size of each Species of Greatest Conservation Need (SGCN) in the dataset; 3) data access tools and high-level reports with results from data analysis for each SGCN.

Background

During the 2015 North Carolina Wildlife Action Plan (NCWAP) evaluation, a committee of bird experts from inside and outside the NCWRC identified species with poorly understood population sizes, trends, and distributions. This process identified 99 SGCN, with more than half having significant knowledge gaps of conservation concern (Table 1). Consequently, the NCWAP recommended long-term distribution and status surveys for these knowledge gap species. However, tracking the distribution and abundance of a single or small group of species is expensive and labor-intensive, and the resources required to comprehensively address the needs outlined in the NCWAP cannot be addressed by one organization alone. Bird atlases, which have a long and distinguished history in Europe and North America, provide a tested method to capture a snapshot of the spatial distribution and abundance of most priority bird species (Beck et al. 2018).

Table 1. Summary of Knowledge Gap Species (2015 NC Wildlife Action Plan).

Knowledge Gaps	SGCN (n=99)	All NCWAP Birds Evaluated (n=281)
NC Distribution known poorly or not at all	31	85
NC Population size known poorly or not at all	55	162
NC Population trend not monitored statewide	48	147

Anticipated Project Objectives and Tasks

For each SGCN (depending on data availability) develop the following:

Objective 1: Produce a quality dataset that includes evaluation of observation and observer reliability using similar protocols as other recently completed state Bird Atlases (e.g. Maryland/Washington DC, New York, and Virginia)

Objective 2: Estimate fine-scale distribution, phenology, and population size

- Task 2.1: Characterize breeding phenology with error estimation
- Task 2.2: Develop robust, predictive species-habitat association models suitable for estimating occupancy and population size
- Task 2.3: Characterize Ranges and Populations with high resolution (<1-km^2)

Objective 3: Produce analysis reports for each SGCN detailing species-specific methods, distribution maps, and summary of results from Objective 2

NCWRC Staff Commitment

NCWRC staff will provide full, augmented eBird data from North Carolina collected from January 2021 – February 2026. In addition, staff will provide data from NC Bird Atlas point count and other species-specific surveys. NCWRC staff will also provide data context, help guide the project, and help make data management decisions such as which data and metadata standards to implement.

Anticipated Deliverables

1. Bi-weekly Updates: Bi-weekly meetings with NCWRC staff during Objective 1 to update and discuss QA/QC decisions.

2. Progress Reports: Quarterly progress reports (13) that address progress made toward project objectives and research questions thus far. Reports will be filed at the end of each quarter and submitted with invoices. Reports should consist of the following:

1. Methods, analysis, and data decisions made to date (either in collaboration with NCWRC or otherwise). Examples include:

    a. List of data points reviewed or excluded, and review criteria applied.
    b. R scripts for the current analysis
2. Listing of species by species progress, including information about sufficiency of data.

3. Final Report – Produce and deliver a final report that includes 1) Executive Summary, 2) Introduction and Objectives, 3) Methods, 4) Results, 5) Discussion. The final report will give a full accounting of project results and will fully address all objectives and research questions.

4. Presentations – Annual presentations to the NCWRC team. Presentations will provide an overview of analytical techniques as well as results to date.

5. Data Files – Data files, data catalogs, and data dictionary will be prepared and archived as analytical efforts are completed. All archived files and data management documents will be transferred to the NCWRC at the conclusion of the project. All datasets will include full metadata based on standards developed with NCWRC.

6. Data Sharing Tools – Package and publish tools developed into R libraries that can be used to extract and evaluate data and data quality of NC Bird Atlas data and derivative products.

7. Species Reports – Report for each species' analysis, outlining justification, caveats, and considerations during analysis.

Anticipated Timeline

Entire Project: Two years

Anticipated Budget

$200,000 to $250,000

Submission Instructions

Proposals will be evaluated by relevant biological staff and recommended for funding based on project design, available funding, estimated time to completion, applicant experience, and alignment with agency research priorities.

Proposal should be typed in 11-point font size and should include all required information as listed below. Information provided by NCWRC in the request for proposal may be used in the proposal language. Items 1-10 should not exceed 7 pages total, and completed proposal should not exceed 15 pages.

Questions may be addressed to Scott Anderson (Scott.Anderson@ncwildlife.gov) and John Carpenter (John.Carpenter@ncwildlife.gov).

Required Information for Full Proposal:

1. Title Page (title of project, name and contact information for lead personnel)
2. Executive Summary
3. Project Need (Language from the RFP may be used in this section.)

4. Introduction/Background that addresses project need and proven efficacy of planned methodologies. Include citations.
5. Project Objectives and Tasks
6. Methods, including study area and/or lab facility
7. Anticipated Deliverables/Products
8. Anticipated Benefits
9. Potential Risks (to schedule, personnel, local ecosystem, etc.)
10. Concurrent Commitments
11. Budget and Budget narrative. Detail any work that will be subcontracted. A 25% non-federal match is required for this award.
12. Proposed project schedule
13. Personnel biographies (education, relevant experience, etc.); subcontractors should be included in this list. A list of relevant completed projects may also be included. Do not include full resumes and do not exceed ½ page per person.

Proposal should be submitted as a single pdf file to research@ncwildlife.gov by July 31, 2026.

It is the responsibility of the researcher to obtain permits required for work presented in the proposal.