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LOI-2023-1

United States Department of the Interior

NATIONAL PARK SERVICE
Northeast Regional Office
1234 Market Street, 20th Floor
Philadelphia, PA 19107



Request for Letters of Research Interest (LOI)

Project Title: Deer Population Estimation for Northeastern National Parks

Background

The northeast region of the National Park Service (NPS) has proposed an ambitious effort to improve forest resilience and prepare for the effects of climate change by addressing forest regeneration debt ([Miller et al. 2023](#)) in 17 northeastern and mid-Atlantic parks. If funded through the Inflation Reduction Act, this initiative will include environmental assessments and implementation of management action to increase tree regeneration in park forests. An important component of the effort will be evaluating current park-level efforts to estimate deer population size and developing a consistent regional approach for long-term deer monitoring. Funding has not yet been announced, but the regional office has been told to expect approximately half of the funding in FY 2024, which will be sufficient to support half of the parks in the proposal as well as the work described in this request for letters of research interest.

Several parks in the northeast region are using road-based spotlight surveys or game cameras to collect data on deer populations, along with multiple approaches to analyze these data. Additional parks are prepared to begin collecting data as part of the broader forest resilience initiative. The parks need assistance with determining appropriate monitoring methods and sampling designs, conducting initial data analyses, and they need guidance on analyzing the data long-term.

Objectives and Products

The specific objectives to be addressed with this project are:

- Review existing park-based monitoring efforts to identify commonalities and differences.
- Review and analyze data from park-based spotlight and camera surveys, to be published as an NPS technical report and/or a peer-reviewed journal article. NPS staff will assist with obtaining data sets and with photo-interpretation.
- Recommend viable approach(es) for the 13 northeast region parks that are part of the project, and provide guidelines for assessing additional parks. Recommendations need to minimize cost and complexity of monitoring and analyses while providing an index or population estimate suitable for use in setting annual management goals.
- Develop a regional deer population monitoring protocol. This document will include:
 - Goals and objectives for deer population monitoring (developed with NPS staff assistance)
 - An overview of monitoring approaches and the state of the science for deer population monitoring
 - Guidelines for determining an appropriate monitoring approach (incorporating the deer monitoring recommendations, above) and sampling design
 - Implementation costs for the proposed methods
 - Description of field survey methods

- Data management and data analysis procedures, including well-documented statistical code
- Implement deer monitoring protocol. Work with participating parks to develop site specific implementation plans and data collection procedures. Guide field activities and review and analyze resultant data. Incorporate feedback and lessons learned from the implementation and revise protocol as appropriate.
- A Federal Financial Report and Project Performance Report is required annually. These reports are due by December 31 of each year and cover the previous government fiscal year (October 1 through September 30).
- Final Federal Financial Report and Project Performance Report, due within four months of project completion.

Project Timeline

Funding decisions for a start in summer or fall 2024 will be announced this winter. If this project is approved, funds will be obligated by September 30, 2024. This project is expected to take two years.

Funds Available

The northeast region has requested \$250,000 for this project, inclusive of the CESU overhead rate of 17.5%. Non-federal partners within the North Atlantic Coast CESU, Chesapeake Watershed CESU, and Great Lakes-Northern Forest CESU networks with a current NPS master cooperative agreement are eligible to apply.

Materials Requested for Letters of Interest

Letters of interest (limit 4 pages) must include:

1. Name, Organization and Contact Information
2. Pre-Proposal: Description of the proposed approach for conducting the project, including any additional data or monitoring methods that could be considered for this project. Describe your anticipated approach to analyzing deer population monitoring data.
3. Draft budget
4. Brief Statement of Qualifications (including):
 - a. Biographical Sketch(s) for key personnel (faculty, staff), including a description of discipline(s) of expertise. Curriculum vitas can be submitted as an attachment.
 - b. Relevant past research projects.

Evaluation Letters of Interest

Based on a review of the Letters of Interest received, and contingent on funding, an investigator will be invited to prepare a full study proposal, schedule, and detailed budget. Letters will be evaluated based on the following criteria and scoring:

1. Soundness and validity of the proposed approach for meeting project objectives (15 points maximum)
2. Demonstrated experience with deer population estimation (10 points maximum)
3. Demonstrated ability to produce technical reports within schedule and budget and demonstrated record of professional publications (5 points maximum)

Contact

Direct questions and letters of interest to Brian Mitchell, brian_mitchell@nps.gov, 401-318-5165. The deadline for responding to this request for LOI is December 29, 2023.