

COOPERATIVE ECOSYSTEM STUDIES UNIT REQUESTS FOR STATEMENT OF INTEREST

To conduct a project entitled
Identifying Important Bat Habitats for Homestead National Historical Park

March 20, 2026

Responses to this request for Statement of Interest (SOI) will be used to identify a lead for a project to be funded by the National Park Service (NPS) for purposes of gaining understanding of bats and their migration at Homestead National Historical Park (HOME).

PROJECT TITLE

Identifying Important Bat Habitats for Homestead National Historical Park

DEADLINE

We request that Statements of Interest be submitted by April 14th, 2026, 11:59 p.m. CDT. This Request for Statements of Interest will remain open until that time.

CONTACT

Direct questions and statements of interest to: Jesse Bolli, Resource Management Specialist, Homestead National Historical Park. Jesse_Bolli@nps.gov or 402-223-1705.

BACKGROUND

Homestead National Historical Park (HOME) is a 212-acre park northwest of Beatrice, Nebraska in Gage County. The park was created in 1936 to commemorate the 1862 Homestead Act and is located on the site of the first homestead claim that was filed under that law. The park has approximately 120 acres of high-quality restored prairie and 60 acres of riparian woodland along Cub Creek, a perennial stream which meanders through the park for over a mile and averages 5.5 meters wide and 30-50 cm deep.

The park is working to reintroduce fire at regular intervals to help the vegetation better represent the landscape the first settlers would have encountered. The park plans to conduct low intensity burns in woodland areas to reduce fire intolerant species (such as hackberry trees) and improve the habitat for fire tolerant species (such as bur oak). As funding and time allow, targeted thinning is planned to be used to open the woodland. To minimize negative impacts on bats, as a species of concern, the park requires updated research on:

1. What species are in the park, when they are present, and how they use different areas of the park.
2. To distinguish local management actions' impacts from impacts more broadly in the bats home range, we also need to identify their probable wintering grounds.

The park's existing data (mist netting in 2004, 2015 and 2019) confirms the presence of evening, big brown, eastern red, northern long-eared, and hoary bats at HOME. Additionally, manually

vetted acoustic monitoring indicates the presence of tricolored, silver-haired and little brown bats. Unvetted acoustic data (just using the software) suggests that Mexican free-tailed, silver-haired, long-legged, Townsend's big-eared and fringed myotis bats may also use the park.

During the 2019 study, five northern long eared bats were netted and tagged so they could be detected with telemetry equipment. Two of those bats were never detected after tagging them, but the other three provided the park with information about the diverse roosts they can use including a privacy fence, a knothole in a small tree, and under the bark of a log located in a wood pile. ([Homestead Bat Study \(U.S. National Park Service\)](#)).

We seek to update these data using a combination of mist netting, roost emergence counts, and Motus tracking locally within the park, and across the bats' ranges. The data collected in this study will be used to directly inform management of park resources to minimize impacts on bats. We anticipate that these data will help us revise burn plans and other park planning efforts.

Goals of this proposed project are:

To update existing park data using a combination of mist netting, roost emergence counts, and Motus tracking locally within the park, and incidentally across the bats' home ranges. The data collected in this study will be used to directly inform the management of park resources to minimize impacts on bats. We anticipate that these data will help us revise burn plans and other park planning efforts. We also expect that analysis of Motus tracks can help managers disambiguate impacts on bats due to local park management actions versus threats migratory bats are facing across their home range.

Specific questions are:

- What species of bats are still present in the park compared to the 2019 and earlier baselines?
- What specific portions of the park are bats using for different activities (e.g. feeding, roosting)?
- Where are the probable migratory and overwintering grounds of these species as identified by the Motus Wildlife Tracking System?
- What is the site fidelity of the tagged bats?

BRIEF DESCRIPTION OF ANTICIPATED WORK

Anticipated work and timeline:

- Awarding of project in late summer 2026.
- Data gathering, planning and possible installation of Motus tower in Winter 2026/27.
- Spring – Fall 2027 monitoring of bats, mist netting and tracking
- Winter 2027/28 drafting the report
- Spring 2028 publishing the report

This project will have three main phases: Planning, Monitoring, and Reporting.

Planning - During the planning stage it is expected that the awardee will apply for the necessary permits and use the park's acoustic monitoring data to develop a study plan which includes: 1) Development of monitoring plan or protocol reviewed by park staff and NPS SMEs. 2) Identification of which species should be monitored with Motus transmitters. 3) Identification of the number of tagged individuals required to provide reliable data.

Monitoring - The monitoring phase will include capturing the bats, fitting them with transmitters and tracking them. Specifically, the park would like to explore the use of transmitters that will trigger Motus towers with the hopes of learning more about their migratory patterns. Other technologies that produce comparable spatial data will be considered.

We anticipate that mist netting efforts will primarily take place along Cub Creek using standard protocols for capture. All bats that are large enough to be banded shall be banded in accordance with the cooperators permit. The goal is to attach Motus tags to as many bats as possible (minimum 10 bats) with preference given to northern long-eared and tricolored bats. If those species are not captured, migratory bats such as hoary, silver-haired, and eastern red bats will be fitted with the tags. The tagged bats that remain in the area will be tracked so roost habitat characteristics can be collected, followed by an emergence count on at least the first night at each new roost located with the tags. Additional count surveys will be conducted at maternity roosts. All capture and tracking efforts will follow guidelines by NPS and Cooperator IACUC, as well as NPS, Nebraska Game and Parks, and USFWS federal recovery permit protocols. Results, including tag detections from the Motus towers during the expected life of the transmitters, will be compiled and summarized in a technical report.

To address the use of different habitats within HOME, the park plans to install a Motus station; however, this acquisition is not guaranteed. Please include estimates that include bringing in a temporary receiver unit for the duration of the project.

Reporting - The reporting phase will involve drafting a report using the science report templates provided by the park. Once it is approved at the park level and put through NPS peer review, it will be published in the NPS science report series. NPS peer review and revisions can take 1-3 months from the time of submission.

The data that is gathered will be used by National Park Service staff to create interpretive products so visitors can gain greater appreciation for the many stressors that bat communities are facing. They will learn what they can do to help the amazing, flying, insect-eating mammals of the park and their neighborhoods by building an army of bat lovers one person at a time. All the information collected will assist the park with making management decisions and Section 7 consultation with U.S. Fish and Wildlife Service.

KEY PRODUCTS

The final product from this project will be a management actionable report published in the peer reviewed National Park Service Science Report Series. This report will document the research findings. Additional publications based on the data can be considered.

PERIOD OF PERFORMANCE

Please note, this project seeks to have publishable report in hand by April 14th, 2028.

MATERIALS REQUESTED FOR STATEMENT OF INTEREST

Please provide the following via e-mail attachment to jesse_bolli@nps.gov
(Maximum length: 7 pages, single-spaced 12 pt. font).

1. Name, affiliation and contact information.
2. Brief Statement of Qualifications including:
 - a. Biographical Sketch
 - b. Relevant past projects and clients with brief descriptions of these projects - demonstrated results including links to published works.
 - c. Staff, faculty or students available to work on this project and their areas of expertise.
3. A detailed study proposal that summarizes strategy, approach, and special capabilities, timelines, roles and responsibilities of personnel, specific tasks to be conducted, and deliverables. Please be as specific as possible.
4. A detailed cost estimate of the proposed work to include a breakdown of all labor, materials, and travel (see attached worksheet).

FUNDS AVAILABLE AND ELIGIBILITY

The project will be funded using FY2026 funds that will need to be obligated by September 30, 2026. Budget is not to exceed \$33,000 inclusive of 17.5% Cooperative Ecosystem Studies Unit (CESU) indirect costs (\$28,085 direct cost plus \$4915 indirect cost = \$33,000 total available).

Non-federal partners of any CESU network are eligible to apply. Entities that are eligible and willing to join a CESU network prior to the final award are also eligible to apply.

REVIEW

Statements of Interest will be evaluated based on qualifications and experience of the principal investigator, and project team and proposed approach. Based on review of the Statements of Interest, a principal investigator will be invited to prepare a full application.

Knowledge, Skills, and Abilities Sought

- Knowledge of bat biology and monitoring them using telemetry.
- Experience in completing monitoring projects and publishing peer review reports summarizing the results.
- Applicant must have necessary permits from the United States Fish and Wildlife Service to capture and tag all the bats that may be encountered at the site.
- Preferred but not required experience using Motus technology to track bats or other species.