



PROGRAMMATIC REVIEW AND CLEARANCE PROCESS FOR NPS-SPONSORED PUBLIC SURVEYS



The scope of the Programmatic Review and Clearance Process for NPS-Sponsored Public Surveys is limited and will only include individual surveys of park visitors, potential park visitors, and residents of communities near parks. Use of the programmatic review will be limited to non-controversial surveys of park visitors, potential park visitors, and/or residents of communities near parks that are not likely to include topics of significant interest in the review process. Additionally, this process is limited to non-controversial information collections that do not attract attention to significant, sensitive, or political issues. Examples of significant, sensitive, or political issues include: seeking opinions regarding political figures; obtaining citizen feedback related to high-visibility or high-impact issues like the reintroduction of wolves in Yellowstone National Park, the delisting of specific Endangered Species, or drilling in the Arctic National Wildlife Refuge.

SUBMISSION DATE: 2/8/19

PROJECT TITLE: Enhancing Recreation and Conservation in Environments Shared by Humans and Bats Through Input from Visitors in National Parks

ABSTRACT: (not to exceed 150 words)

Viewing bats at caves is a popular recreational activity that provides revenue for the National Park Service. Since the introduction of white-nose syndrome, parks across the country have adopted varying prevention and decontamination measures to slow the spread of the disease. While the effectiveness of these procedures has been tested, there has been little to no research on how visitor experience is being affected by the protocols. This project will focus on surveying visitors about their attitudes and knowledge about bats and their perceptions of common management practices and interpretive strategies used by parks to protect bat and cave resources from white-nose syndrome. Information gained from this project will be used to enhance recreational opportunities, make interpretive programs more responsive to public perceptions and interests, and support publicly-acceptable stewardship of bats and caves.

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PROJECT INFORMATION:

Where will the collection take place? Mammoth Cave, Cumberland Gap, Wind Cave, Jewel Cave, Carlsbad Cavern, El Malpais, Lava Beds, Oregon Caves

Sampling Period Start Date: May 31st, 2019 Sampling Period End Date: August 16, 2019

Type of Information Collection Instrument: (Check ALL that Apply)

- Mail-Back Questionnaire Face-to-Face Interview Focus Groups
 On-Site Questionnaire Telephone Survey
 Other (List)

Will an electronic device be used to collect information? No Yes – Type of Device: iPad

SURVEY JUSTIFICATION:

Social science research in support of park planning and management is mandated in the NPS Management Policies 2006 (Section 8.11.1, "Social Science Studies"). The NPS pursues a policy that facilitates social science studies in support of the NPS mission to protect resources and enhance the enjoyment of present and future generations (National Park Service Act of 1916, 38 Stat 535, 16 USC 1, et seq.). NPS policy mandates that social science research will be used to provide an understanding of park visitors, the non-visiting public, gateway communities and regions, and human interactions with park resources. Such studies are needed to provide a scientific basis for park planning and development.

White-nose syndrome (WNS) is considered one of the deadliest wildlife diseases of the modern era, as it has killed an estimated 5.7 million bats throughout eastern North America and continues to spread westward. This fungus attacks the skin of bats while they are hibernating. At some cave sites, 90-100% of bats have died. As a result of this disease, a national interagency plan and recommendations were developed to reduce the risk of spreading the fungus that causes WNS. Fungal spores can be transported on gear and clothing between sites used by roosting bats, such as caves and mines, so increasing awareness of this risk and implementing decontamination guidelines for humans that enter these sites is important to slow the spread of the disease. The National Park Service (NPS) has been instrumental in the national response to WNS, as it has close relationships with the public, manages extensive cave resources and provides opportunities for recreation, education and scientific exploration of cave ecosystems.

The NPS manages over 4,700 caves throughout the country. With WNS rapidly spreading across the country, the NPS has supported management and research efforts to help slow the spread of this disease. Most of these efforts have focused on the biological and ecological aspects of the disease. This study aims to fill in the social science gaps of knowledge by providing the NPS with information on park visitor attitudes towards bats, visitor knowledge of bats and their role in the ecosystem, and visitor perceptions of management practices and interpretive programs used by parks to help prevent spread of WNS. This study will also provide participating parks with visitor demographic information. Results from this project will help the NPS and partners in the national WNS response by integrating crucial social science data with scientifically-informed best management practices for conserving bats and valuable cave resources.

SURVEY METHODOLOGY:

(A) Respondent Universe:

All adult park visitors (18 years or older) of the 8 parks listed above will be eligible for this study.

(B) Sampling Plan / Procedures:

Two trained interviewers will intercept visitors at well-trafficked areas within each of the 8 parks listed above (i.e. visitor center, cave entrance, popular trail head, etc.). National Park Service staff will help the two interviewers determine the best locations to reach a variety of visitors (i.e. one-time visitors, local residents, etc.).

The number of sampling days has been pre-determined by the researchers and participating parks. Researchers will approach every adult visitor to take the survey, with a maximum of 350 participants from two parks within close geographic proximity (ex. 350 surveys total from Lava Beds and Oregon Caves). Surveys will be given using tablet computers, with visitors self-administering the surveys. The researchers will be available to answer any questions visitors have about the study.

Table 1. Example On-site Sampling Schedule

Location	Sampling Days Per Site		
	June	July	August
Oregon Caves National Monument	10		
Lava Beds National Monument	12		
Carlsbad Caverns	5	2	
El Malpais		7	
Wind Cave		8	
Jewel Cave		7	
Mammoth Cave		1	6
Cumberland Gap			7
Total	27	25	13

Table 2. Estimated Number of Visitor Contacts during Sampling Period

Location	Estimated Number of Visitor Contacts			
	June	July	August	TOTAL
Oregon Caves National Monument	175			175
Lava Beds National Monument	175			175
Carlsbad Caverns	125	50		175
El Malpais		175		175
Wind Cave		125		175
Jewel Cave		175		175
Mammoth Cave		25	150	175
Cumberland Gap			175	175

(C) Instrument Administration:

The initial contact with visitors will take roughly 1 minute. During this time, the researchers will explain the study and determine interest of participation. Visitors who refuse to take the survey will be counted to calculate response rates. If the visitor agrees to participate, one of the interviewers will give the visitor an iPad containing the informed consent document and survey. The survey will be self-administered, and the interviewers will be available to answer any question pertaining to the study. After the respondents complete the survey, the interviewers will give respondents a patch or badge uniquely designed for this project. The survey is expected to take a maximum of 15 minutes to complete.

(D) Expected Response Rate / Confidence Level:

The response rate for this collection is based on a similar study conducted by Fagan et al. (2018)¹. Based on the survey sample sizes, there will be 95% confidence that the survey findings will be accurate to within 3-5 percentage points. Assuming a 40% (n=1,400) acceptance rate, we will need to contact approximately 3,500 visitors (Table 3). The proposed sample sizes will be adequate for bivariate comparisons and will allow for comparisons between study sites. For dichotomous response variables, estimates will be accurate within the margins of error and confidence intervals will be somewhat larger for questions with more than two response categories.

The number of refusals at each location will be recorded and used to calculate the overall response rate.

Table 3. Expected acceptance rate

Location	Initial Contacts	Acceptance 40%	Non-respondents (Non-response Bias Check 60%)	Non-response Bias Check 5%	Hard Refusals 95%
Oregon Caves National Monument	438	175	263	13	250
Lava Beds National Monument	438	175	263	13	250
Carlsbad Caverns	438	175	263	13	250
El Malpais	438	175	263	13	250
Wind Cave	438	175	262	13	249
Jewel Cave	438	175	262	13	249
Mammoth Cave	438	175	262	13	249
Cumberland Gap	438	175	262	13	249
TOTAL	3,500	0	00	0	0

(E) Strategies for dealing with potential non-response bias:

To reduce the overall number of non-responses, we are offering every visitor who completes the survey a unique patch/badge designed specifically to include bats and caves. To deal with potential non-response bias, we will capture the responses to the following the demographic data we receive from respondents that will be compared it to demographic information for each park.

¹ "Public attitudes toward the presence and management of bat roosting in buildings in Great Smoky Mountains National Park, Southeastern United States

1. How far did you travel from your home to get to this national park? (Pick one)
 - a. Not far at all, I can make day trips to this national park
 - b. Not too far, I live in the region (surrounding states)
 - c. Very far, I come from outside of the region (outside of surrounding states)
 - d. I'm visiting from another country

2. How many days do you intend to visit this park? _____

3. How would you describe your home community? (Pick one)
 - a. Urban
 - b. Suburban
 - c. Rural

Thus, we can be sure that our respondents match the demographics of the visitors completing this survey. All responses will be recorded for the non-respondents. Results of the non-response bias check will be described in a report and any implications for park planning and management will be discussed.

(F) Description of any pre-testing and peer review of the methods and/or instrument:

The survey has been developed with input from natural resource and interpretive staff at the participating NPS units. It has been reviewed by Michelle Verant, NPS wildlife veterinarian with the Biological Resources Division, and by Emma Willcox, Assistant Professor at the University of Tennessee focused on wildlife management. Many of the questions in this survey are similar in either structure or topic to the 2015 version of the NPS Pool of Known Questions. The NPS Pool of Known Question that most similarly matches our survey question is denoted in the survey. Many of these questions are also adapted from a previous IRB-approved survey (Fagan, K. E., Willcox, E. V., & Willcox, A. S. (2018). Public attitudes toward the presence and management of bats roosting in buildings in Great Smoky Mountains National Park, Southeastern United States. *Biological Conservation*, 220, 132-139.).

BURDEN ESTIMATES:

Based on our estimates, we plan to approach 3,500 individuals at all sites during the sampling periods. We anticipate that 40% (n=1,200) of the individuals contacted will agree to participate and complete the 15 minute on-site survey (1,200 respondents x 15 minutes = 350 hours). Of all the visitors refusing to accept the invitation (n=2,100) we will ask if they would be willing to answer the three questions that will serve as the non-response bias check for this collection. We expect that 5% (n=13) of the on-site refusals will agree to answer the non-response bias questions. We anticipate that the time to complete the non-response bias check will take an additional minute, resulting in an hour of respondent burden for the non-response survey (13 respondents x 1 minute = <1-hour). The remaining 1,996 visitors refusing to accept any part of the invitation to participate will not incur a respondent burden and for those individuals, we will only attempt to record their reason for refusal. The overall estimated respondent burden for this collection is 408 hours. This includes the time it takes to complete the on-site questionnaire (including the initial contact) plus the non-response survey (Table 4).

Table 4 Respondent burden estimates

	Responses	Completion Time * (minutes)	Burden Hours (rounded up)
Initial Contact	3,500	1	58
Completed On-site questionnaire*	1,400	15	350
Non-response bias check survey	13	1	<1
Total burden requested under this ICR:	360		408 hours

REPORTING PLAN:

After the data collection and analyses, we plan on reporting our results multiple ways. First, we will work on creating a technical report for the NPS that contains an overview of the methods, the results, and the implications for management of natural resources and interpretive programs related to caves and bats within NPS units. We also plan to draft at least one manuscript for a peer-reviewed journal. Lastly, we plan on presenting this information both to the NPS, and other interested agencies, directly and at professional conferences.

NOTICES

Privacy Act Statement

General: This information is provided pursuant to Public Law 93-579 (Privacy Act of 1974), December 21, 1984, for individuals completing this form.

Authority: National Park Service Research mandate (54 USC 100702)

Purpose and Uses: This information will be used by The NPS Information Collections Coordinator to ensure appropriate documentation of information collections conducted in areas managed by or that are sponsored by the National Park Service.

Effects of Nondisclosure: Providing information is mandatory to submit Information Collection Requests to Programmatic Review Process.

Paperwork Reduction Act Statement

We are collecting this information subject to the Paperwork Reduction Act (44 U.S.C. 3501) and is authorized by the National Park Service Research mandate (54 USC 100702). This information will be used by The NPS Information Collections Coordinator to ensure appropriate documentation of information collections conducted in areas managed by or that are sponsored by the National Park Service. All parts of the form must be completed in order for your request to be considered. We may not conduct or sponsor and you are not required to respond to, this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number. OMB has reviewed and approved The National Park Service Programmatic Review Process and assigned OMB Control Number 1024-0224.

Estimated Burden Statement

Public Reporting burden for this form is estimated to average 60 minutes per collection, including the time it takes for reviewing instructions, gathering information and completing and reviewing the form. This time does not include the editorial time required to finalize the submission. Comments regarding this burden estimate or any aspect of this form should be sent to the Information Collection Clearance Coordinator, National Park Service, 1201 Oakridge Dr., Fort Collins, CO 80525.