



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: April 6, 2018

PROJECT TITLE: Tick borne disease prevention messaging

ABSTRACT: (not to exceed 150 words)

Tick-borne diseases pose significant risks to park employees and visitors. Parks need to educate visitors about the risks of tick-borne diseases and educate them about how to prevent these diseases. At the same time, some research has shown that fear of tick-borne disease is reducing outdoor recreation and support for conservation in some populations. The National Park Service is interested in understanding the effects that informational messages related to tick-borne disease will have in promoting appropriate prevention behaviors. The purpose of this collection is to determine the baseline of knowledge visitors have about local tick-borne disease risks to help parks tailor prevention messages to appropriate audiences and understand how fear of tick-borne disease is impacting visitor behaviors and support for conservation to help parks manage tick-borne disease risks to inform park educational efforts. The data collected will be used directly by park safety programs, interpretation programs, and the service-wide Office of Public Health in directing tick-borne disease prevention and management actions.

PRINCIPAL INVESTIGATOR CONTACT INFORMATION:

Name: Charles Lubelczyk Title: Vector ecologist
Affiliation: Maine Medical Center Research Institute Phone: 207-396-8246
Address: Vector-borne Disease Laboratory 81 Research Drive Scarborough, ME 04074
Email: lubec@mmc.org

PARK OR PROGRAM LIAISON CONTACT INFORMATION:

Name: Danielle Buttke Title: One Health Coordinator
Affiliation: NPS/NRSS/BRD/Wildlife Health Branch Phone: 970-267-2118
Address: 1201 Oakridge Dr, Ste 200
Email: Danielle_buttke@nps.gov

PROJECT INFORMATION:

Where will the collection take place? Acadia National Park (ACAD)

Sampling Period Start Date: May 21, 2018 Sampling Period End Date: October 20, 2018

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 electronic devices be used to collect information? No Yes - Type of Device: iPad/tablet

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.

This study is necessary because tick borne disease is rapidly expanding and increasing and threatens both visitor and employee health as well as threatens support for conservation. Research has shown that fear of tick-borne disease is reducing outdoor recreation and support for conservation in some populations. Therefore, it is incumbent upon parks managers and planners to develop the most effective ways to communicate about tick-borne diseases and appropriate prevention behaviors. The National Park Service (NPS) would like to understand the nexus that exists between informational messages and appropriate prevention behaviors. Managers will use the results of this to:

- assess what park visitors know about the risks associated with tick-borne diseases,
- understand how park visitors respond to prepared messages,
- determine if fear of tick-borne disease is impacting visitor behaviors
- support for conservation to help parks manage tick-borne disease risks
- inform developing in-park educational and interpretive programs

Acadia National Park (ACAD) is the ideal location for this collection. Due to the well-established cases of Powassan virus (POW) in the area, effective tick-borne disease messaging has become the priorities elected representatives, local officials and natural resource managers of public lands effected. Park safety programs, interpretation programs, and the NPS Office of Public Health will use the results of this collection. The information will be used to direct prevention and management actions. The NPS Office of Public Health will specifically use the data to help inform any products developed because of a service-wide needs assessment for tick-borne disease in the spring of 2018.

SURVEY METHODOLOGY:

(A) Respondent Universe:

The respondent universe for collection will be all adults (age 18 and older) visiting Acadia National Park during the sampling period, including both local and out-of-state residents. In 2016, ACAD reported 3.3 million visitors.

Sampling will occur at the following locations within and at nearby areas to evaluate for any differences across the park boundary.

- Hulls Cove Visitor Center
- Sand Beach Visitor Center
- Sieur de Monts Nature Center
- Seawall Campground Amphitheatre
- Echo Lake Beach
- Acadia Mountain
- Jordan Pond House

(B) Sampling Plan / Procedures:

This will be an on-site survey that to be completed and returned before leaving the sampling area. Two trained interviewers will randomly intercept visitors at designated sampling areas. Park locations are based upon visitation rates during the sampling period based upon the 2016 NPS Visitor Use Statistics. No sampling will occur in August due to the lack of seasonal tick activity and logistical constraints.

Table 1. ACAD 2016 Visitation Rates

Location	Visitation Estimate 2016*			
	June	July	Sept	Oct
Hulls Cove Visitor Center Parking Lot	46,000	67,000	63,000	45,000
Sand Beach Visitor Center	49,500	76,000	62,000	45,000
Sieur de Monts Nature Center	85,00	105,00	11,000	10,000
Seawall Campground Amphitheatre	NO DATA on Seawall Ampitheatre, only Picnic area and number of campers.			
Echo Lake Beach	NO DATA Echo Lake has around 120 parking spaces in the lot located on the westside of the island. Between the months of July and August, almost every day the lot is almost at capacity (n=120).			
Acadia Mountain	NO DATA Parking surveys showed that during the months of July & August 2017 the total number of vehicles in the parking area to be between 40-80 parked cars between 10am-2pm			
Jordan Pond House	NO DATA 202000 meals served at JPH for all of 2016			
TOTAL	95,000	143,105	136,000	100,000

Sampling will occur during the peak use period (June-October 2018) at seven sampling areas to capture tick activity during peak visitation period. Sampling will occur on week and weekend days to capture both types of visitors. We will use a random to select participants for the survey. After the first group completes a hardcopy or electronic version of the questionnaire, we will select the next n^{th} person (or group). This process will continue during designated sampling day throughout the sampling period. The 42-sampling days will occur on a random day during each assigned week between 8 a.m. and 5 p.m. at the designated sampling locations listed below. No sampling will occur in August due to the lack of seasonal tick activity and logistical constraints.

Table 2. Proposed On-site Sampling Schedule

Location	Sampling Days Per Site			
	June	July	Sept	Oct
Hulls Cove Visitor Center	2	3	2	2
Sand Beach Visitor Center	2	2	2	2
Sieur de Monts Nature Center	2	3	2	2
Seawall Campground Amphitheatre	2	3	2	2
Echo Lake Beach	1	1	0	0
Acadia Mountain	0	0	1	1
Jordan Pond House	1	0	1	1
Total	0	0	0	0

Table 3. Estimated Number of Visitor Contacts during Sampling Period

Location	Estimated Number of Visitor Contacts				
	June	July	Sept	Oct	TOTAL
Hulls Cove Visitor Center	50	65	50	35	200
Sand Beach Visitor Center	50	65	50	35	200
Sieur de Monts Nature Center	30	45	45	30	150
Seawall Campground Amphitheatre	25	30	30	15	100
Echo Lake Beach	25	30	30	15	100
Acadia Mountain	5	10	10	5	30
Jordan Pond House	10	20	10	10	50
TOTAL	195	265	225	145	830

(C) Instrument Administration:

When approaching a group of individuals, the individual with the next birthday in the group will be asked to respond to the questionnaire. The initial contact with visitors will take approximately 1 minute. This time will be used to explain the study and to determine interest of participation. All visitors who refuse will be asked to answer two short non-response bias questions that will be used in the final analysis recorded and used to calculate response rates.

If a visitor agrees to participate, the interviewer will bring the visitor to a designated location, provide an iPad or paper/pencil as an alternative option. The survey will be self-administered, and the interviewer will be available to answer any questions and receive the iPad upon completion.

Visitors selected for participating in the survey will be read the following script:

Hello, I am _____ from the Maine Medical Center and the National Park Service. We are conducting this survey to learn more about what visitors know about ticks and tick-borne diseases. Your participation in the study is voluntary. It should take about 10 minutes of your time to complete using questionnaire using this iPad.

→If **YES** - then ask, "has any member of your group been asked to participate in this survey before?"

If "**YES**" (already asked to participate) then, "*Thank you for agreeing to participate in this study. We hope that you will return the questionnaire soon. Have a great day.*"

If "**NO**" (have not been previously asked to participate then continue with the following),

"Thank you for agreeing to participate. Who in your group is at least 18 years old and has the next birthday? Before we start, I would like you to know that there are no penalties for not answering some or all questions, but because each participant will represent many who have not been asked to answer this questionnaire, your input is extremely important to the overall success of our study. The answers you provide will be completely anonymous. Our results will be summarized so that the answers you provide cannot be associated with you or anyone in your group or household. Before we start, are you at least 18 years old? Next, there is a short consent statement that I would like for you to read and check if you agree if it is true.

→If **NO**- (soft refusal) - ask them if they would be willing to answer the non-response bias questions (listed below) and then thank them for their time. *Record responses in spaces provided on the tracking sheet.*

→If **NO**- (hard refusal) - *end the contact and thank them for their time.*

The survey will consist of four sections. The first section will ask questions related to knowledge, perceptions, and experience with ticks, including previous behaviors to prevent tick-borne disease and plans to prevent tick-borne disease. The next section asks questions regarding recall of information from message treatment provided. The final set of questions asks basic demographic information and visit behavior questions.

In the section related to messages treatments, the survey software randomly assign one of six messages related to tick-borne diseases. Treatment 1-5 will consist a general tick borne disease prevention message and a general statement include information about:

- local rates of tick-borne disease risk with a positive One Health message
- local rates of tick-borne disease risk without a positive One Health message
- the risk of Powassan virus with a positive One Health message
- the risk Powassan virus without a positive One Health message

Treatment #6 will not have a message and the respondent will proceed directly to the questions.

(D) Expected Response Rate / Confidence Level:

The number of Initial contacts represents the potential pool of individuals based on our previous experiences administering a similar survey at four national parks about bat-transmitted disease. Sampling will stop after the target numbers are reached, however if target numbers are not reached by the end of the sampling period, we will add additional weeks in October. By the end of October, If target numbers are not reached we will adjust our analytical methods to address the reduced power in our analysis.

Based on sample sizes and response rates on surveys at similar park sites, there will be 95% confidence that the survey findings will be accurate to within 5 percentage points. To achieve this, assuming a 60% response rate we will have to contact approximately 830 visitors. The proposed sample sizes will be adequate for bivariate comparisons and will allow for comparisons between study sites and sophisticated multivariate analysis. 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 reported in a survey log, and will be used in calculating the overall response rate.

Table 4. Expected response rates.

Location	Total Number of Initial Contacts	Acceptance 60%	Non-respondents 40%	Soft Refusals* 20%	Hard Refusals** 80%
Hulls Cove Visitor Center	200	120	80	16	64
Sand Beach Visitor Center	200	120	80	16	64
Sieur de Monts Nature Center	150	90	60	12	48
Seawall Campground Amphitheatre	100	60	40	8	32
Echo Lake Beach	100	60	40	8	32
Acadia Mountain	30	18	12	2	10
Jordan Pond House	50	30	20	4	16
Total	830	500	330	66	264

*Soft refusal - Visitors refusing to take the full survey but agree to complete the non-response survey

**Hard refusal - Visitors that refuse to take the full and the non-response survey.

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

To check for non-response bias, the interviewer will ask each visitor that refuses to complete the full survey, the following two questions taken from the survey:

- 1) Have you visited an NPS site before today?
- 2) Are you concerned about tick-borne diseases?

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

Many of the questions are from the previous version of the NPS Pool of Known Questions (OMB Control Number 1024-0224) and adapted from two previously OMB-approved surveys on bats 1) Understanding knowledge and perceptions of bats among resident of Fort Collins, Colorado (Sexton, N.R. and S.C. Stewart. 2007. U.S. Geological Survey, Biological Resources Discipline, Open-File Report 2007-1245, 22p) and 2) One Health Message about Bats Increases Intentions to Follow Public Health Guidance on Bat Rabies (Lu H, McComas KA, Buttke DE, Roh S, and Wild M. 2016. PLoSOne 11(5).) The survey was pretested with colleagues and family members by asking if the questions were clear and timing how long it took to complete the survey.

BURDEN ESTIMATES:

Overall, we plan to approach at least 830 individuals at all sites during the sampling periods. Among which we anticipate that 500 individuals will agree to participate and complete the full survey while on site. We expect that 330 (40%) visitors will refuse to participate and for those individuals, we record their reason for refusal.

Of all the visitors refusing to accept the invitation (n=330) we will ask if they would be willing to answer the questions that will serve as the non-response bias check. We expect that 20% (n=66) of the on-site refusals will spend an additional minute to answer the non-response bias questions (66 x 2 minute = 2 hours). We anticipate that it will take an additional minute to resulting in a total of 6 hours for the non-response survey.

The remaining 264 visitors refusing to accept any part of the invitation to participate not incur a respondent burden and for those individuals, we will attempt to record their reason for refusal, and they count as a non-respondent/hard refusal.

We have determined that after the initial contact (1 minute), an additional 10 minutes will be required provide instruction and to complete and return the questionnaire (500 responses 11 minutes = 92 hours). The total burden for this collection combines the initial contact plus the non-response survey and the time to completed surveys for an estimated 94.2 annual respondent burden hours.

Table 5. Estimated annual respondent burden

	Responses	Completion Time * (minutes)	Burden Hours
		<i>Contact time added to completion time</i>	
Completed questionnaire	500	11	92
Completed Non-response survey	66	2	2
Total burden requested for this ICR:	566		94

REPORTING PLAN: The results of the study will be presented in internal agency reports for NPS managers as well as possible webinars to interested groups within NPS. Response frequencies will be tabulated and measures of central tendency computed (e.g., mean, median, mode, as appropriate). The reports will be archived with the NPS Social Science Program for inclusion in the Social Science Studies Collection. Hard copies will be available upon request. We also intend to publish our results in academic journals and present them 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.