



**National Park Service  
U.S. Department of the Interior**

**Social Science Program**

OMB Control Number 1024-0224  
Current Expiration Date:8-31-2014

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**Programmatic Approval for NPS-Sponsored Public Surveys**

**Submission Date March 27, 2015**

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1. **Project Title:** BioBlitz 2015 - Hawai'i Volcanoes National Park Teacher and Student Survey

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2. **Abstract:** The National Park Service (NPS) is requesting approval to conduct a mail back survey designed to evaluate outcomes of the 2015 BioBlitz at Hawai'i Volcano National Park. The target population for this collection will be school children (ages 12-18) and their teachers from the private and public schools registered to participate in the 2015 NPS/National Geographic Society BioBlitz at Hawai'i Volcanoes National Park.

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(not to exceed 150 words)

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3. **Principal Investigator Contact Information**

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4. **Park or Program Liaison Contact Information -**

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**Project Information**

5. **Park(s) For Which Research is to be Conducted:** **Hawai'i Volcanoes National Park**

6. **Survey Dates:** **Start Date - April 1 2015** **End Date: August 31, 2015**

7. **Type of Information Collection Instrument (Check ALL that Apply)**

- Mail-Back Questionnaire**
- On-Site Questionnaire**
- Face-to-Face Interview**
- Telephone Survey**
- Focus Groups**
- On-line/web based**

8. **Survey Justification: (Use as much space as needed; if necessary include additional explanation on a separate page.)** *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, management, and policy.*

BioBlitzes are short-term (usually 12-48 hours), field-based inventories that engage people of different ages and backgrounds to discover and document species in parks. BioBlitzes are an important part of the National Park Service's *A Call to Action: Preparing for a Second Century of Stewardship and Engagement*. Biodiversity discovery events such as BioBlitzes are the focus of Action 7: Next Generation Stewards, which calls for the National Park Service to "create a new generation of citizen scientists and future stewards of our parks by conducting fun, engaging, and educational Biodiversity Discovery activities in at least 100 national parks, including at least five urban parks." Response from the parks has been so positive that the Call to Action goal was achieved in July, 2014. Because BioBlitzes yield new scientific information on species in the parks, as well as provide opportunities for people to actively contribute to park research, NPS is now working to institutionalize these efforts in parks. For the NPS to provide meaningful experiences for participants, evaluation of program activities is imperative. Data from this collection will be used by NPS to tailor elements of BioBlitz and other community-based programs to meet the needs of the next generation of stewards.

The NPS is requesting the approval of a new information collection needed to evaluate and provide measureable outcomes associated with the 2015 Hawai'i Volcanoes National Park BioBlitz. The park will use this information to evaluate experiences and outcomes of students and teachers participating in this year's BioBlitz. This collection will provide information that will help park managers and event planners understand: (1) reasons why teachers/students

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participate in the BioBlitz, (2) teachers/students' thoughts and feelings about the host park and the natural world, interest in science, and sense of stewardship toward national park resources and nature before and after BioBlitz, and (3) impacts of participation on teachers/students' perceptions of the BioBlitz experience and national parks

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9. **Survey Methodology: (Use as much space as needed; if necessary include additional explanation on a separate page.)**
- (a) Respondent Universe:**  
The respondent universe for this collection will be all teachers and school aged students (12-18) that register and attend the 2015 BioBlitz at Hawai'i Volcanos National Park.
- (b) Sampling Plan/Procedures:**  
Teachers are required to register at least three months prior the BioBlitz . For the purposes of this collection, the entire population of registered teachers and their students will be surveyed. The list of registered teachers will be obtained from the BioBlitz planning leads. Any teachers registering on-site will also be included in the population.
- (c) Instrument Administration:**  
One month before the BioBlitz a pre-event letter will be given to all registered teachers at one of the required teacher workshops. The letter will introduce the research team and explain the purpose of the post-BioBlitz survey.
- Approximately one week after the BioBlitz, all teachers and students will have the option to complete the post survey on-line or a paper version. Return mailing materials will be included with the paper versions of the survey. The survey is designed to be self-administered. In addition to completing their own questionnaires, teachers will be asked to coordinate the administration and collection of the questionnaires from their students. Teachers will be asked to allow the students to complete the questionnaire as a part of a classroom assignment. This will help ensure that student surveys are completed and returned.
- Reminder letters will be sent to all non-respondents weekly following the first mailing. We will mail four letters until at least 70% of the respondents have replied. If we have not reached the 70% response rate using the letter method, we will follow up by telephone with the remaining non-responding teachers to determine the reasons for their non-response and to encourage them to complete the survey.
- (d) Expected Response Rate/Confidence Levels:**  
The expected response rate for the both survey is 70% (teachers n=53 and student n=980). These estimates are based on previous research with similar studies conducted by the Center for Education and Evaluation Studies (CEES) where students and teachers complete surveys as part of their normal classroom activities.
- (e) Strategies for dealing with potential non-response bias:**  
During the telephone contact will ask each non-responding teacher the following

three questions taken directly from the post -visit survey that will be used in a non-response bias analysis.

1. *Have you participated in other BioBlitzes prior to your participation at the Hawai'i Volcanoes National Park BioBlitz?*  
 Yes  No
2. *As a teacher with students, have you participated in other National Park Service presentations or programs at Hawai'i National Volcanos?*  Yes  No
3. *How satisfied were you with the management and organization of this year's BioBlitz?*

All responses will be recorded. The results of the non-response bias check will be reported and any implications for applicability of survey results to generalizations about the study population will be discussed.

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

Five school aged students and two local science teachers were asked to complete the questionnaire, and answer a series of debriefing questions afterwards. We asked for feedback on the length of time to complete the questionnaire, the clarity of instructions and questions, and ways to minimize respondent burden. Participants were also asked to indicate if they had any difficulty or confusion multi-item response scales, and/or instructions for recording responses (e.g., "Mark one" or "Mark all that apply").

The feedback from the pre-test indicated that the layout of the survey instrument was straightforward and easy to follow, however, we determined that it may take less time to complete after having the actual experience because some of the terminology used in the survey may have been used and explained during the BioBlitz. After the pre-test was concluded we found that there were no systematic response errors or item non-response patterns.

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10	<b>Burden Estimates:</b>	<p>The total respondent burden for this collection is estimated to be 310 hours.</p> <p>Overall, it is expected that 75 teachers will be contacted and asked to participate in this collection. On average each teacher will bring 19 students to participate in the Bioblitz (75 teachers x 19 students = 1,425 respondents).</p> <p><u>Teacher Surveys</u></p> <p>We expect that 70% of the teachers (n=53) will complete the pre-Bioblitz survey. We have estimated that it would take at least 10 minutes to complete this segment of the collection (53 teachers x 10 minutes = 9 hours). We will send the post-survey to all of the teachers participating in the BioBlitz (n=75). We have estimated that the post -event survey will take at least 25 minutes to complete (75 teacher responses x 25 minutes = 15 hours)</p>
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Student Survey

Based on the results of the pretest, we have determined that it will take an average of 17 minutes per student (n=980) to complete either version of the survey (980 students x 17 minutes = 278 hours).

Non-respondent Survey

For all non-respondents (n=22) it will take approximately 3 minutes to complete the follow-up non-response questions (22 respondents x 3 minutes = 1 hour).

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11. **Reporting Plan:** Response frequencies will be tabulated and measures of central tendency computed (e.g., mean, median, mode, as appropriate). The report will be archived with the NPS Social Science Program for inclusion in the Social Science Studies Collection as required by the NSP Programmatic Approval Process.
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