



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

Social Science Program

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Programmatic Approval for NPS-Sponsored Public Surveys

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1. **Project Title** Noatak National Preserve sport hunter perceptions and experiences

2. **Abstract:** Sport hunter and associated commercial transport and guiding activities in Noatak National Preserve have been documented as increasing moderately over the last decade. This information collection has been requested by Noatak National Preserve management team to understand the impact of crowding and the conflict between sport hunters and subsistence hunters.

(not to exceed 150 words)

3. **Principal Investigator Contact Information**

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Project Information

5. **Park(s) For Which Research is to be Conducted:** Noatak National Preserve (NOAT)

6. **Survey Dates:** 08/20/13 to 8/30/14

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

Mail-Back Questionnaire On-Site Questionnaire Face-to-Face Interview Telephone Survey Focus Groups

Other (explain)

8. **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, gateway communities and regions, and human interactions with park resources. Information on visitor perceptions about security and safety will also be evaluated. Such studies are needed to provide a scientific basis for park planning, development and concession contract decisions*

Noatak National Preserve (NOAT) was created by the Alaska National Interests Lands Conservation Act in 1980 to provide subsistence hunting opportunities and sport hunting. Because of the remote location, most sport hunters must access the area by way of air transport and utilize commercial guides during the hunt.

Management Justification

This information collection has been requested by Noatak National Preserve management team to understand the impact of crowding and the conflict between sport hunters and subsistence hunters. The presence of sport hunters has caused long-standing concern among local residents and subsistence hunters.

This survey is part of a larger study to understand:

- existing use patterns,
- potential impacts and perspectives of sport hunters on local subsistence hunters,
- associated commercial support services (i.e., guides and air transporters),
- the level and potential causes of conflict with subsistence hunters in the same area.

At this point, park managers rely on anecdotal information that include the issues that are known to be offensive to the native culture:

- sport hunters cause caribou to change their migration patterns away from the villages;
- sport hunters are only interested in trophy hunting
- sport hunters let meat rot or go to waste
- noise from the transporter flights, trash, and human waste

This study will help managers to understand:

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- how the current number of sport hunters in NOAT compare to the social carrying capacity of the area;
 - if there are real or perceived crowding and/or conflict issues among sport hunters and/or other users of the area
 - what types of human activity/behaviors would be indicators of quality for all user groups of the preserve
 - if sport hunter harvest methods have potential to alter caribou migration
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9. **Survey (a) Respondent universe:**

Methodology: The respondent universe for this collection will be:

- all sport hunters, pilots, and guides who intend to hunt in the portion of Game Management Unit 23 (GMU 23) located within the Noatak National Preserve boundaries during the 2013 fall hunting season (August 1-October 1); and
- all hunters who hunted within the same area during the previous three seasons (2010-2012).

(b) Sampling plan/procedures:

During the fall hunting season (August 1-October 1) we will sample for approximately 30 days at the Kotzebue, Alaska Airport. There will be three distinct samples:

On site survey of 2013 hunters, guides, and pilots

During the proposed sampling period, we will contact 225 hunters, guides, and pilots returning from a big game hunt, at the Kotzebue, Alaska Airport. Upon contact we will ask them to participate in the on-site survey.

Post-trip Interviews of 2013 hunters, guides, and pilots

During the fall 2013 hunting season (August 1 through October 1, 2013), we will randomly select 20 parties or commercial operators returning from a big game hunt, at the Kotzebue, Alaska Airport. Upon selection and after screen for edibility we will ask them to participate in a semi-structured, post-trip interview.

Mail Survey of 2010-12 Hunters

We will use a mailing list to contact approximately 400 hunters who hunted in the GMU 23 area within NOAT in the 2010, 2011 and/or 12 hunting seasons.

(c) Instrument administration:

On-Site Sample

During the selected sample times and locations we will approach hunters, introduce ourselves and the purpose of the survey. Those who have hunted in NOAT and have not completed a survey will be asked if they would be willing to participate in the survey. We will attempt to sample multiple members of each group as perspectives may differ among group members. If they agree to participate, we will ask that questionnaire be completed on-site and return to the survey technician. We will provide a business reply, self-addressed envelope for the hunters do not have time to complete the survey on-site and would prefer to mail completed questionnaire. No additional follow-up contacts will be made with this group. If they do not want to participate, a non-response test will be

conducted (see section e).

Post-trip Interviews of 2013 hunters, guides, and pilots

We will randomly select and interview 20 individuals (hunters and commercial operators) returning from a big game hunt. A handheld audio recorder will be used upon receiving permission to record the interview. Interviews are expected last 30 minutes each.

Mail Survey

We will send a mail survey to all hunters who were licensed to hunt in the GMU 23 portion of NOAT. A list of names and addresses will be provided by the Alaska Department of Fish and Game. We will use the Dillman Tailored Design Method (Dillman, Smyth, & Christian, 2008) to administer the survey. NOAT hunters will be sent a postcard announcing the survey, followed by the survey itself (to include a cover letter and a postage-paid, return envelope). A thank-you reminder postcard will be sent approximately two weeks later followed by a second mailing to all non-respondents. After 6 weeks all non-respondents will be sent a third survey. After two months, remaining non-respondents will be sent a short survey to assess non-response bias (see section (e) below).

(d) Expected response rate/confidence levels:

On-site survey

Harrington and Fix (2009) conducted a similar study of self-identified hunters (n=17) in the southern portion of GMU 23. No one refused to complete that survey. Based on those results, we anticipate a response rate of at least 90%. We anticipate contacting about 225 hunters during the sampling period. A response rate of 90% will result in 203 completed surveys.. Assuming an 80/20 split on key questions (based on the findings of Harrington and Fix (2009), the 95% confidence interval will be: +/- 3.13% (Vaske, 2008).

Post-trip Interviews of 2013 hunters, guides, and pilots Interviews

We will ask 14 hunting parties, 3 transporter pilots, and 3 guides to participate in interviews (total n=20). We anticipate 80% of these parties will participate in interviews, resulting in 16 completed interviews.

Mail Survey

Given that the list contains approximately 400 NOAT hunters, we have anticipated response rate of 55%, therefore we expected to receive 205 completed surveys (after subtracting the undeliverable address). Again assuming an 80/20 split on key questions based on Harrington and Fix's (2009) results, we expect results in a 95% confidence interval of +/- 3.8% (Vaske, 2008).

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

On-site Survey

If hunters refuse to participate in the on-site, the survey administrator will ask the following three questions and the responses will be recorded in a log.

- 1) *What years did you hunt in NOAT?*
- 2) *Did you harvest a Caribou during this trip?*
- 3) *What type of commercial support services did you use during this trip?*
- 4) *Did you experience conflict with other hunters during this trip?*

Mail Survey

Two months after the initial mailing of the questionnaire, remaining non-respondents will be sent a short survey to assess any non-response bias.

- 1) *What years did you hunt in NOAT?*
- 2) *Did you harvest a Caribou during your most recent trip to the Noatak National Preserve?*
- 3) *What type of commercial support services did you use during your most recent trip?*
- 4) *Did you experience conflict with other hunters during your most recent trip?*

Responses will be recorded and if any non-response bias is detected, the implications for management will be provided to the park.

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

The survey uses questions that have previously been administered to hunters in the area. Sources for these questions were Harrington and Fix (2009) and Alaska Department of Fish and Game Studies. In addition, questions on the Noatak survey are similar to questions included on a sport hunter survey conducted in the Kobuk River area of Gates of the Arctic National Preserve (Christensen & Watson, 2002). The survey was also reviewed by several game management individuals knowledgeable about survey research methods and the situation in GMU 23.

- 10. **Burden Estimates** The time for completion of the various components of this study vary. The anticipated number of contacts and completes, time required for the contact and complete, and total burden hours are provided in the table below.

Activity	Annual Number of Responses	Completion Time (minutes)	Burden (hours)
On-site Survey			
Initial Contact	225	3	11
Non-response	22	2	1
Completed Surveys	203	20	68
Interviews			
Initial Contact	20	3	1
Interview Session	16	30	8
Mail Survey			
Initial Contact	400	3	20
Completed Surveys	205	20	68
TOTAL BURDEN			177

- 11. **Reporting Plan:** The National Park Service, in cooperation with the University of Alaska Fairbanks, will

present results to the NPS and provide a written report. The presentation and report will present:

- Spatial distribution of hunters
- Characteristics of hunting groups/hunters
- Existing conditions, level of contacts and perceived impacts to quality
- Conflict levels or potential differences in values
- Factors that contributed to a positive/negative experience

A copy of the final report will be archived in the NPS Social Science Studies Collection.

References

Christensen, N. A. & Watson, A. E. (2002). Gates of the Arctic Kobuk River Sport Hunter Survey. Missoula, MT.: Aldo Leopold Wilderness Research Institute.

Dillman, D. A., Smyth, J. D., & Christian, L.M. (2008). Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method 3rd ed. Hoboken, NJ: John Wiley & Sons, Inc.

Harrington, A.M. & Fix, P. J. (2009). Benefits Based Management Study for the Squirrel River Area. Project report for USDI Bureau of Land Management. Fairbanks, Alaska: Department of Resources Management, University of Alaska Fairbanks.

Vaske, J.J. (2008). Survey Research and Analysis: Applications in Parks, Recreation and Human Dimensions. State College, PA: Venture Publishing.