

1 Supporting Statement A

Caribou Video Data Scoring

OMB Control Number 1028-NEW

Terms of Clearance: None

General Instructions

A completed Supporting Statement A must accompany each request for approval of a collection of information. The Supporting Statement must be prepared in the format described below, and must contain the information specified below. If an item is not applicable, provide a brief explanation. When the question “Does this ICR contain surveys, censuses, or employ statistical methods?” is checked "Yes," then a Supporting Statement B must be completed. OMB reserves the right to require the submission of additional information with respect to any request for approval.

Specific Instructions

Justification

- 1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection.**

To meet the needs of DOI agencies and partners, USGS is leading a project titled, “Assessing the effects of climate-induced variability on the behavior, distribution and demography of the Porcupine Caribou Herd”, which is funded in part by the USGS Changing Arctic Ecosystems Initiative. As part of the project, USGS deployed video collars on caribou to record information on their behavior and habitat-use patterns. The collars collect a 10 second video clip every ~20 minutes during the summer months. To collect data from the video clips USGS has created an online application. The application will be used by project staff, cooperators and volunteers to watch the videos and record information about observed caribou behaviors and habitat characteristics into a common database.

- 2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection. Be specific. If this collection is a form or a questionnaire, every question needs to be justified.**

The information will be used by USGS and project cooperators (US Fish and Wildlife Service, Yukon Government, Alaska Department of Fish and Game, Parks Canada) to determine caribou foraging behavior, energetics, and responses to insect harassment, habitat selection, and how the change across the summer. The videos are also being used to determine whether female caribou have a calf that survives through the summer.

Within the online caribou application, observers watch videos recorded from caribou collars and answer the following questions about each clip:

- How was the video quality (excellent, fair/good, poor, obstructed)?
This allows us to determine whether the information obtained from the video is reliable, and the quality of the data from each collar.
 - What was the foraging status (eating, ruminating, drinking, licking soil/rocks, none)?
Allows us to determine the time caribou spend on different foraging behaviors.
 - What was the state of locomotion (wading/swimming, running, walking, stationary, napping)?
Provides information about caribou energetics and activity budgets.
 - Was a calf visible (yes: her own, yes: possibly her own, yes: with another cow, no)?
Provides information on whether a collared female retains her calf during the summer.
 - Were other caribou visible (0, 1-4, 5-30, >30)?
Provides information about caribou social behavior, especially as they are known to aggregate into large groups during periods of severe insect harassment.
 - Did the caribou exhibit insect avoidance (shook head, kept muzzle to ground, scratched, sought snow patch, sought ridge, aggregated, none)?
Provides information about caribou responses to insect harassment, and how frequently they are modifying their behavior to deal with harassment.
 - Were insects present (yes/no)?
See previous response.
 - Was the habitat visible (ground & surroundings, only ground, only surroundings, none)?
Provides information on the observers's ability to answer different questions (i.e., whether a calf is visible, predominant vegetation, etc).
 - What was the predominant vegetation (alpine tundra, tussock tundra, wet herbaceous, low shrubs, tall shrubs, forested, herbaceous/lichen/moss, unvegetated, unknown/poor visibility)?
Provides information about the habitat being selected by caribou.
 - Were any of these habitat features visible: snow present, water, ocean/coast, human signs, none?
Provides information about habitat features being selected by caribou.
 - Were other species detected, and if so, what?
Provides information about potentially interesting interspecific interactions.
3. **Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden and specifically how this collection meets GPEA requirements.**

Respondents enter information about the caribou videos into an online application that is stored in a database. Because project collaborators viewing and scoring the caribou videos are dispersed across agencies and locales, we needed an electronic format that would allow data entry, storage and management.

- 4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.**

This information has never been collected on the Porcupine Caribou Herd.

- 5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.**

Not applicable. The information will be used for research purposes to better understand caribou ecology.

- 6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

If the collection is not conducted, USGS will not meet our research obligations to DOI partners and stakeholders. USGS has been funded to complete this work, as understanding the wildlife responses to changing Arctic conditions is a key priority of the Alaska Science Center and the Ecosystems Mission Area.

- 7. Explain any special circumstances that would cause an information collection to be conducted in a manner:**

- * **requiring respondents to report information to the agency more often than quarterly;**
- * **requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
- * **requiring respondents to submit more than an original and two copies of any document;**
- * **requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years;**
- * **in connection with a statistical survey that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- * **requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
- * **that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- * **requiring respondents to submit proprietary trade secrets, or other confidential**

information, unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

Project cooperators and volunteers will be entering data more than quarterly as part of the data entry process, as we have thousands of videos to score.

- 8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and in response to the PRA statement associated with the collection over the past three years, and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every three years — even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

The 60-day Federal Register Notice was published 11/08/2021 at 86 FR 61780. We received no public comments

This data collection was designed to meet the needs of DOI and partner agencies in the US and Canada and has been reviewed by all project cooperators (personnel in USGS, US Fish and Wildlife Service, Alaska Department of Fish and Game, Yukon Government, Parks Canada). In addition, our process was informed by personnel at the University of Montana.

We consulted with the individuals listed (Table 1 below) to obtain their views on the information and burden estimates presented in our instruments. These industry contacts had no suggested changes to the forms and no changes were made in the burden estimates as a result of these contacts.

Table 1 Commenters on the survey or announcement

U.S. Fish and Wildlife Service Wildlife Biologist Fairbanks, Alaska	Yukon Government Supervisory Wildlife Biologist Dawson, Yukon
USGS Alaska Science Center	

Research Wildlife Biologist Anchorage, AK	
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9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

No payments or gifts are made to respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

Not applicable. Data is being collected on collared caribou.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

This collection does not ask for information of a sensitive nature and has been approved by the USGS Privacy Officer.

12. Provide estimates of the hour burden of the collection of information. The statement should:

- * Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**
- * If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens.**
- * Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here.**

We are using [Bureau of Labor Statistics](#) news release USDL-21-2146 for Employer Costs for Employee Compensation Summary—December 16, 2021, to determine our dollar value for burden hours. The value used is \$39.55 for public respondents.

Table 2 Respondent burden

Participant / Activity	Number of Responses	Minutes per response	Burden Hours (Annual)	Dollar Value for Burden Hr
Public individual reads announcement or instructions	20	120	40	\$1,582.00
Public individual completes survey	20	1,200	400	\$15,820.00
Subtotal		1,320	440	\$17,402.00
State, Local govt reads announcement or instructions	4	120	8	\$316.40
State, Local govt completes survey	4	1,200	80	\$3,164.00
Subtotal		1,320	88	\$3,480.40
Total			528	\$20,882.40

Above is an estimate of the annual hour burden. We expect to have approximately 20 public individuals volunteer for this project and 4 state/local government personnel. Each person is expected to spend 2 hours learning the data protocol, reviewing examples, and practicing scoring videos. Once they are trained, each volunteer is expected to spend 20 hours scoring videos during the year. It takes approximately 2 minutes to score each video so this would equate to scoring 600 videos. I have multiplied the estimated hours by the \$39.55 to get the burden cost.

13. Provide an estimate of the total annual non-hour cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected in item 12.)

- * **The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life) and (b) a total operation and maintenance and purchase of services component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information (including filing fees paid for form processing). Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.**
- * **If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.**

- * Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.

There is no non-hour cost burden, recordkeeping, nor any fees associated with collection of this information.

14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.

We estimate the total annual cost to the Federal Government is \$48,785.60, estimated using Salary Table [SALARY TABLE 2022-AK \(opm.gov\)](#), Incorporating the General Schedule Increase Effective January 2022 and Hourly Basic Rates by Grade and Step (no locality).

Table 3 Federal Government Expenses

Position	Grade/ Step	Hourly Rate	Hourly Rate incl. Benefits (1.6 x hourly pay rate)	Estimated Time Spent by Federal Employees (annualized hours)	Estimated Federal Employee Salary/Benefit Annualized Costs
Research Biologist (AK)	13/4	\$55.83	\$89.33	240	\$21,439.20
Wildlife Biologist (MT)	7/1	\$18.45	\$29.52	720	\$21,254.40

Table 4 Other Federal Government Expenses

Journal publication costs (3 publications anticipated @ \$2000 each, approximately 1/year)	\$6,000
Power App Fee	\$92.00

15. Explain the reasons for any program changes or adjustments in hour or cost burden.

This is a new collection.

16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other

actions.

Data from the caribou videos will be collected from the time of approval through fiscal year 2025. We will use information collected from caribou video clips to publish peer-reviewed scientific journal articles about caribou diet, foraging behavior, and habitat-use patterns across the summer. All articles will be publicly available. Additionally, we will publish summaries of the data as official USGS Data Releases. Publications and the data release are expected to occur by the end of fiscal year 2027.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

We will display the OMB control number and expiration date on each form in this collection.

18. Explain each exception to the topics of the certification statement identified in "Certification for Paperwork Reduction Act Submissions."

There are no exceptions to the certification statement.