



Wildlife Stewardship in National Park Service Areas in Alaska

A Report to the Alaska Leadership Council Sub-group on Wildlife Harvest on Parklands

Natural Resource Report NPS/AKSO/NRR—2013/663



“A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”

Aldo Leopold

ON THE COVER

Barren ground caribou

Photograph by: Kyle Joly, Kobuk Valley National Park

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May 2013

U.S. Department of the Interior
National Park Service
Natural Resource Stewardship and Science
Fort Collins, Colorado

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Please cite this publication as:

Hilderbrand, G. V., K. Joly, S. P. Rabinowitch, and B. Shults. 2013. Wildlife stewardship in National Park Service areas in Alaska: A report to the Alaska Leadership Council Sub-group on Wildlife Harvest on Parklands. Natural Resource Report NPS/AKSO/NRR—2013/663. National Park Service, Fort Collins, Colorado.

Contents

| | Page |
|--|------|
| Executive Summary | iv |
| Acknowledgments..... | v |
| The National Park Service in Alaska – The Responsibility and Challenge | 1 |
| National Park Service Resources and Values | 1 |
| National Park Service Wildlife Stewardship in Context | 2 |
| Underlying Principles of Wildlife Stewardship in NPS Areas in Alaska..... | 3 |
| Wildlife Harvest Management in NPS Areas in Alaska..... | 4 |
| Consumptive Use of Wildlife and the Rural Priority Provision of ANILCA..... | 6 |
| The Role of the State of Alaska in NPS Wildlife Harvest Management..... | 6 |
| Rationale for Prohibiting Predator Control and Intensive Management Mandated by the State of Alaska | 7 |
| Evaluating Methods and Means, Seasons and Harvest Limits | 7 |
| Recommended Path Forward..... | 8 |

Executive Summary

Wildlife stewardship on National Park Service (NPS) Areas in Alaska is guided by the Organic Act, the General Authorities Act, the Alaska National Interest Lands Conservation Act, Federal regulations, and NPS Management Policies. This document consolidates this collective guidance to serve as a focused reference for NPS staff as they evaluate the myriad issues and decisions facing the agency and the wildlife held in its trust. Further, this document will inform members of the public, fellow agencies, and partners about the considerations and constraints used by NPS when implementing mandates relative to wildlife.

1. Wildlife stewardship is practiced on all Alaska NPS units uniformly. Harvest of wildlife within Parks, Monuments, and Preserves will be managed so that wildlife resources and wildlife values are unimpaired as defined in NPS Management Policies.
2. The application of recognized scientific principles of wildlife population health and viability need to be viewed through the lens of whether the activities of humans are compatible with applicable federal laws and NPS regulations and policies.
3. Methods and means of wildlife harvests, within NPS Preserves in Alaska, promulgated by the State of Alaska will be evaluated for compliance with applicable federal laws and NPS regulations and policy by the same standards applied to Parks and Monuments.
4. The standard for wildlife stewardship on all NPS lands in Alaska is ensuring that these resources are unimpaired. The terms “healthy” and “natural and healthy” as they appear in ANILCA apply to determining the appropriate level of wildlife populations and subsistence use. These terms are relevant to the broader NPS role as wildlife steward at the nexus of subsistence management and wildlife management.
5. NPS shall adopt non-conflicting State regulations for harvest in Preserves. Where State of Alaska laws and wildlife harvest regulations are conflicting, Federal mandates are pre-emptive.

Acknowledgments

This product was requested and supported by the NPS Alaska Leadership Council sub-group on Wildlife Harvest in Alaskan Park areas. In particular, Deb Cooper, Joel Hard, Greg Dudgeon, Dave Mills, Phillip Hooge, Andee Sears, and Chris Bockmon provided invaluable insights and guidance. In addition, the present document was largely informed by the efforts of a group that developed a previous draft document from 1995 to 2003: Dave Spirtes, Ken Adkission, Don Calloway, Bob Gerhard, Judy Gottlieb, Paul Hunter, Jon Jarvis, Charlie Lean, Steve Martin, Dave Mills, Sandy Rabinowitch, Devi Sharp, Hunter Sharp, Brad Shults, Clarence Summers, Ralph Tingey, Hollis Twitchell, and Steve Ulvi. In 2011, John Burch, Kyle Joly, Layne Adams, and Jim Lawler provided peer review of this prior document which underscored the need for additional and current work on the topic of wildlife on Alaskan Parklands. Key to the current effort was a work session held at the Biological Resources Management Division in Fort Collins, Colorado in February of 2012. Participants in this work session included Andee Sears, Cat Hoffman, Tanya Schenk, Joel Berger, Steve Windels, Deb Cooper, Dan Decker, Phillip Hooge, Joel Hard, Jennifer Lee, Jason Waanders, Chris Bockmon, Grant Hilderbrand, Sandy Rabinowitch, Guy Adema, Kyle Joly, Jim Lawler, Tom Liebscher, Rick Kahn, and Jessica Resnick. This session greatly benefitted by the artful facilitation of Karina Mullen. Detailed internal review of the current document was provided by Jason Waanders, Chris Bockmon, Josh Schmidt, Jessica Resnick, Deb Cooper, Joel Hard, Nancy Swanton, and Tom Liebscher. Peer-reviews external to the process were provided by Wayne Regelin, Bob Winfree, Mark Bertram, and Elaine Leslie.

The National Park Service in Alaska – The Responsibility and Challenge

National Park areas are treasuries of our nation’s collective natural, cultural, and historical heritage. The 1916 Organic Act established the fundamental purpose of the National Park Service (NPS) to:

“...conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations”.

NPS employees are charged with the task of meeting the directives of the 1916 Organic Act and the NPS Management Policies 2006 (the basic service-wide implementation document of the NPS). Adherence to policy is mandatory unless specifically waived or modified by the Secretary of the Interior, Assistant Secretary of the Interior, or Director of NPS. NPS conservation responsibilities apply to individual species and the ecosystem in its entirety (i.e., all its component parts and the processes that link them). Wildlife span a broad number of taxa, serve integral functions within larger systems, and provide for a wide variety of uses from consumptive to non-consumptive and values from utilitarian to intrinsic. NPS conservation responsibilities encompass the entire range of wildlife species from invertebrates to large mammals.

NPS managers are wildlife managers in the broadest sense of the term. Managers of NPS areas in Alaska make a myriad of decisions that affect wildlife. These include, but are not limited to: hunting and trapping for subsistence and sport purposes, access, timber harvest, internal and external development, authorization of commercial activities, authorization of guiding and wildlife viewing activities, food storage and handling to minimize food-conditioning of wildlife, fish handling regulations, distance requirements from wildlife or nests, recreation management, education, research programs, trail and backcountry use, and wilderness activities. Further, these decisions are being made in a period of dramatic and significant ecosystem dynamics due to climate change.

National Park Service Resources and Values

NPS values have been explicitly identified by Congress. In the Redwoods Amendment (1978) to the NPS General Authorities Act (1970), NPS is directed that,

“...the promotion and regulation of the various areas of the national park system...shall be consistent with and founded in...the common benefit of all the people of the United States. The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the national park system and shall not be exercised in derogation of the values and purposes for which these areas have been established, except as may have been or shall be directly and specifically provided by Congress”.

The NPS Management Policies 2006 (Section 1.4.6) define park resources and values, in part, as:

“the park’s scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it...and native plant and animals”.

Also included in the definitions of park resources and values are

“appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them”.

National Park Service Wildlife Stewardship in Context

Single-species harvest management is a well-established practice employed by most states and, in many cases, has resulted in successfully achieving sustained yield of desired species. Harvest management is an important but challenging discipline that supports and informs crucial decisions related to subsistence and sport hunting and fishing opportunities. As a wildlife steward, NPS supports and partners in species-based research and monitoring (see section 4.4.2 of the NPS Management Policies 2006) which informs State and Federal harvest regulation development.

However, the wildlife stewardship role of the NPS is complex; and often not easily understood by or communicated well to Alaska’s natural resource managers. For instance, some resource managers refer to the NPS stewardship role as “no management.” This critique reflects a lack of understanding of NPS’s mission in its parks, preserves, and monuments.. Additionally, the diversity of species under NPS care extends beyond those of immediate utilitarian value as food, fur, or bone. As per section 4.4.1 of the NPS Management Policies 2006:

“The NPS will maintain as parts of the natural ecosystem of parks all plants and animals native to park ecosystems. The term ‘plants and animals’ refers to all five of the commonly recognized kingdoms of living things and includes such groups as flowering plants, ferns, mosses, lichens, algae, fungi, bacteria, mammals, birds, reptiles, amphibians, fishes, insects, worms, crustaceans, and microscopic plants or animals.”

Further, behaviors, processes, and linkages have been identified in NPS guidance documents as important and worthy of conservation. Section 4.4.1 of the NPS Management Policies 2006 further states:

“The Service will successfully maintain native plants and animals by

- ◆ *preserving and restoring the natural abundances, diversities, dynamics, distributions, habitats, and behaviors of native plant and animal communities and ecosystems in which they occur*
- ◆ *restoring native plant and animal populations in parks when they have been extirpated by past human-caused action;: and*

- ◆ *minimizing human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them”*

These policies result in a style of management not well understood by many resource managers and stakeholders in Alaska. Thus, the maintenance of natural processes and ranges of variation is the product of complex and explicit management decisions.

Underlying Principles of Wildlife Stewardship in NPS Areas in Alaska

Specific to natural resources, the NPS is a steward of ecosystems, their components (both biotic and abiotic), and the processes that link them. Each NPS unit in Alaska was created to conserve a unique and nationally important suite of natural and sometimes cultural resources as well as the values associated with them. Specific to wildlife, NPS has a responsibility for all taxa, all uses, for all time. Section 102 of the Alaska National Interest Lands Conservation Act (ANILCA) of 1980 emphasizes this broad role by defining fish and wildlife as:

“any member of the animal kingdom, including without limitation any mammal, fish, bird (including any migratory, non-migratory, or endangered bird for which protection is also afforded by treaty or other international agreement), amphibian, reptile, mollusk, crustacean, arthropod or other invertebrate...”

To guide this stewardship role, the following principles were identified and developed at a workshop held in Fort Collins, Colorado in February 2012. These principles were based on existing law, regulation, and policy in conjunction with professional standards and current knowledge relative to natural resources in general and for wildlife specifically. These principles may be used to guide the broad scope of management decisions made by the NPS that affect wildlife and can influence the development of research and monitoring programs and projects.

- ◆ Decisions will be consistent with NPS statutes, regulations, policies, and other applicable federal laws.
- ◆ The NPS will strive to work effectively with all potential partners including, but not limited to, other governments, tribes, other agencies, park users, communities, Subsistence Resource Commissions (ANILCA § 808), Federal Subsistence Regional Advisory Councils (ANILCA §805) and the public.
- ◆ Values influence decision-making.
- ◆ Decisions should be informed by the best available scientific data, monitoring results, literature, and accepted professional standards.
- ◆ Stewardship spans populations, species, complex processes that link them, ecosystems, and biodiversity.
- ◆ The environment is dynamic (e.g., climate, fire, weather).
- ◆ Natural populations have intrinsic and dynamic population parameters such as sex ratios, age structures, and suites of behaviors
- ◆ Natural wildlife populations fluctuate.
- ◆ Individual animal and species movement should be unhindered.

- ◆ Federal subsistence use is a component of natural ecosystems, but should not dominate them or adversely disrupt ecosystem processes.
- ◆ Sport hunting is an authorized use in preserves in Alaska but not in parks or monuments and sport fishing is authorized in parks, preserves, and monuments.
- ◆ NPS values the customary and traditional ecological knowledge of subsistence users; and recognizes the subsistence priority on all specified NPS areas in Alaska for the take of wildlife by local rural residents.
- ◆ NPS values other agencies, organizations, individuals, and the public as important conservation partners and respects their mandates and missions.
- ◆ As professionals, NPS staff has a responsibility beyond NPS boundaries to serve as local, regional, national, and global conservation leaders.
- ◆ Wildlife stewardship should reflect learning.
- ◆ When uncertain, NPS should manage wildlife and their habitats conservatively.

Wildlife Harvest Management in NPS Areas in Alaska

Of the many wildlife management decisions facing Alaskan NPS managers, those related to wildlife harvest are sometimes value driven and therefore controversial and time consuming. In 1980, ANILCA added tens of millions of acres to the National Park System and authorized subsistence harvest of wildlife in most of these areas, as well as sport hunting in Preserves in Alaska (Table 1). ANILCA affords rural residents of Alaska priority for the taking of subsistence wildlife resources on federal public lands in Alaska. (Sections 802 (2) and 804). Notably, Congress clearly stated its policy that conservation takes precedence over subsistence use (Section 802 (1)). Section 815 of ANILCA provides that Title VIII of ANILCA should not be construed as permitting:

“...the level of subsistence use...to be inconsistent with the conservation of healthy populations of fish and wildlife, within a conservation unit, and the conservation of natural and healthy populations within a national park or monument...”

The different phrases “*healthy*” and “*natural and healthy*” have led to much discussion as to whether or not different standards apply to different NPS areas (i.e., parks and monuments vs. preserves), which is not the case. Section 815 is a collection of “limitations and savings clauses” and does not set general management standards. The terms “*healthy*” and “*natural and healthy*” apply to determining the appropriate levels of wildlife populations and subsistence use. Even in the context of subsistence use they must be read in harmony with the Organic Act and General Authorities Act.

Notably, 50 CFR 100.4 (Federal Subsistence Board regulations) defines the conservation of healthy populations relative to subsistence harvest management in Alaska. It is significant that this definition explicitly gives weight to agency policy:

“conservation of healthy populations of fish and wildlife means the maintenance of fish and wildlife resources and their habitats in a condition that assures stable and continuing natural populations and species mix of plants and animals in relation to their ecosystem, including the recognition that local rural residents engaged in subsistence

uses may be a natural part of that ecosystem; minimizes the likelihood of irreversible or long-term adverse effects upon such populations and species; ensures the maximum practicable diversity of options for the future; and recognizes that the policies and legal authorities of the managing agencies will determine the nature and degree of management programs affecting ecological relationships, population dynamics, and the manipulation of the components of the ecosystem”.

The NPS General Authorities Act clearly deems all areas of the NPS as equal in sharing the common purpose to express our national heritage, no matter their designation, stating:

“...that the national park system...has...grown to include superlative natural, historic, and recreation areas in every major region of the United States...; that these areas, though distinct in character, are united through their inter-related purposes and resources into on national park system as cumulative expressions of a single national heritage; that, individually and collectively, these areas derive increased national dignity and recognition of their suburb environmental quality through their inclusion jointly with each other in one national park system preserved and managed for the benefit and inspiration of all the people of the United States; and that it is the purpose of the this Act to include all such areas in the System”.

The “Redwood Amendment” further confirmed that all such areas are to be managed under the purpose established in the Organic Act. Further, Section 1313 (“Administration of National Preserves”) of ANILCA states,

“a National Preserve in Alaska shall be administered and managed as a unit of the National Park System in the same manner as a national park except as otherwise provided in this Act and except that the taking of fish and wildlife for sport and subsistence purposes, and trapping shall be allowed in a national preserve under appropriate regulations and applicable State and Federal law”.

ANILCA explicitly states that the Act neither enlarges nor diminishes the responsibility and authority of either the State of Alaska (Section 1314(a)) or the Secretary of the Interior (Section 1314(b)).

In summary, while sport and subsistence harvest are allowed on preserves and subsistence harvest is allowed within specified parks and all monuments, the mandates specific to wildlife stewardship are uniform. The existing legal standards (e.g., the prevention of impairment) prescribed by the Organic Act, Redwoods Amendment, and other laws and policies that apply to all NPS areas throughout the systems apply fully to all NPS areas in Alaska. There is no second set of standards and there are no second-class NPS areas.

Consumptive Use of Wildlife and the Rural Priority Provision of ANILCA

The ANILCA allows specified consumptive uses of fish, wildlife and others resources on many NPS areas in Alaska (Table 1). Nested within that allowance is the recognition of a group of people who have a priority of use for the taking of fish and wildlife. That group is the NPS qualified “rural residents” of the State of Alaska. Further, within specified parks and all monuments, these rural residents have the exclusive opportunity to take wildlife.

However, on NPS preserves, all Alaska residents have equal opportunity to sport hunt. This occurs because the State of Alaska defines all Alaskan residents as subsistence users under its subsistence statute (AS 16.05.258). This important inconsistency between federal and state law was identified and ruled upon in late 1989 by the Alaska Supreme Court case *McDowell vs. State of Alaska* and resulted in what is now commonly called “dual management” of wildlife in Alaska.

The Role of the State of Alaska in NPS Wildlife Harvest Management

The ANILCA Section 1314 (c) limits harvest of wildlife in parks and monuments to harvest for subsistence purposes as authorized by Title VIII. Thus, for specified NPS areas this leaves the Preserves Section 1313 as the only place that harvest authorized by the State of Alaska can occur given the current day reality of existing dual management programs. In this narrow context of what the ANILCA referred to as “sport hunting”, the State of Alaska is the primary manager of that segment of use so long as State laws and regulations do not conflict with federal laws, regulations, or policies. NPS adopts non-conflicting State regulations for such harvest (36 CFR 2.2-(b)(4) and 36 CFR 13.40-(d)(1)). The vast majority of Alaska State laws and wildlife regulations are, and expected to be, non-conflicting. This predominant congruity is a reflection of the overall shared public trust responsibility and fundamental similarity in the core conservation mission of the two agencies.

On those occasions where State laws, regulations, or actions conflict with Federal laws or guidance, Federal mandates are pre-emptive (per the Supremacy Clause of the United States Constitution). Significant Alaska-specific examples where such pre-emption has been exercised include the NPS regulation prohibiting any “taking” same day airborne, the creation of the Federal Subsistence Board, and NPS closures.

However, whenever Federal actions affecting wildlife harvest are considered, consultation with the State is not only sound practice, but required by ANILCA (Section 1313) and NPS Management Policies 2006 (Section 4.4.3). Collaboration is paramount since individuals and populations commonly span NPS boundaries and harvest on adjacent lands may affect wildlife in park areas. Thus, a geographically broad view of wildlife conservation and management is warranted.

Rationale for Prohibiting Predator Control and Intensive Management Mandated by the State of Alaska

The State's intensive management statute was passed in 1994 [AS 16.05.255 (e)-(g) and (j)-(k)]. The passage of this statute significantly altered management options allowed under State law by shifting management focus specifically to providing for high levels of human harvest of selected moose, caribou, and potentially, deer populations. The NPS Management Policies 2006 clearly prohibit predator control as Section 4.4.3 states:

“the Service does not engage in activities to reduce the numbers of native species for the purposes of increasing the numbers of harvested species (i.e., predator control), nor does the Service permit others to do so on lands managed by the National Park Service”.

Further, prohibition in the Management Policies 2006 applies not only to activities explicitly authorized or legally defined under the State Intensive Management law, but also hunting and trapping regulations that by explicit intent or biological effect alter the naturally occurring predator prey ratios in favor of prey species. By its very intent to maintain high levels or provide for higher levels of human harvest, the State of Alaska Intensive Management Law is incongruent with NPS mandates (NPS 2006 Management Policies Section 4.4.3). Similarly, ungulate population and harvest goals specified in State of Alaska regulations and the predator population minimums that exist in the individual intensive management plans (i.e., 5 AAC 92.125) explicitly intend to modify natural systems in many aspects.

NPS may only engage in intensive harvesting or habitat manipulation, per Section 4.4.3 of the NPS Management Policies 2006, and it may only do so for a short list of acceptable reasons such as to reduce or eliminate exotic species, maintain a habitat type, or to return the ecosystem to a more natural state (e.g., culling of deer when predators are absent). Specific to habitat, Section 4.4.3 of the 2006 NPS Management Policies states:

“Habitat manipulation for harvested species may include the restoration of a disturbed area to its natural condition so it can become self-perpetuating, but this will not include the artificial manipulation of habitat to increase the numbers of a harvested species above its natural range in population levels.”

Evaluating Methods and Means, Seasons and Harvest Limits

Specific hunting and trapping harvest methods and means and intended and actual effects will continue to be evaluated on a case-by-case basis. Considerations of applicable laws, regulations, and policies, as well as park resources and values, should inform decisions. Values-based decisions affecting subsistence harvest will consider customary and traditional uses of wildlife by local rural residents. Established cultural practices should be allowed unless they violate applicable laws, regulations, and policies, including adherence to recognized scientific principles. If such conflicts occur the NPS should employ its research and negotiating capabilities to seek out cooperative outcomes. The scope of appropriate methods and means, seasons, and harvest limits should generally err on the side of conservation, especially in situations where data are limited.

Recommended Path Forward

Management of all wildlife resources on NPS lands in Alaska should continue under the guidance of the best available science. Given that consumptive use of wildlife (both subsistence and sport fishing, hunting, and trapping) is allowed on the majority of NPS-managed areas in Alaska, the development, modification and recurring assessment of state and federal harvest regulations on a species by species basis is necessary. However, setting bounds or numeric goals for traditional metrics (e.g., population estimates, age class ratios, sex class ratios, and juvenile and adult mortality) to manage for sustained yield of a single species, as many states do, may not fully inform the broad wildlife stewardship role of NPS. Further, the policy direction to preserve natural abundances, diversities, dynamics, distributions, habitats, and behaviors may be challenged by sustained yield principle looking for consistent population or harvest rates through time, particularly for ungulate species that fluctuated naturally (e.g. caribou).

From the NPS's perspective, what drives a change of a particular metric is as at least as important the size of the change. Extreme fluctuations in wildlife populations may be acceptable under NPS mandates if they were driven primarily by natural causes with minimal human influence (e.g., caribou herd size dynamics). However, a predominantly human-induced change (e.g., due to harvest or industrial development) in the population size would be of concern to the NPS. The NPS has to internally develop a process to determine what level of human-induced change is acceptable and what level is unacceptable (i.e., consistent with its mandate to conserve wildlife and avoid impairment). While the potential of industrial development appears to be increasing in Alaska, hunting and trapping continue to be the human influence with the most immediate potential to affect wildlife populations in NPS areas in Alaska.

Although Congress considered some level of hunting and fishing to be part of the natural environment, it was not to have significant resource impacts, conflict with recognized scientific wildlife management principles, or threaten population viability. Thus, the NPS needs to evaluate the aforementioned standard metrics through the tiers of laws, regulations and policies identified in this review (e.g., the Organic Act; ANILCA) and may need to develop novel metrics that assess whether and to what extent the status of a given ecosystem component is natural or is deviating from its natural state as well as identify appropriate time periods over which to apply these metrics. It is possible that some of these metrics could be implemented on an Alaska-wide (or even Service-wide) basis. However, each NPS unit is mandated to prevent impairment and ensure the conservation of natural processes and systems with recognition of the dynamic nature of the physical and biotic environment. Parks and the resources they support vary dramatically, thus a single prescription across parks or species may not be reflective of the complexity of the ecosystems under NPS management. The Organic Act, other statutory and regulatory mandates, park enabling legislation, ANILCA, and General Management Plans (GMPs) will serve as key guidance to describe a park's desired condition. Using the information provided here as a foundation, future work should be conducted to ascertain the potential for developing quantitative metrics to assess the ecosystem components that are or are not affected by unnatural factors. This work should draw on multiple professional disciplines (e.g., wildlife and fisheries biology, anthropology, climatology, biometrics, ecology, law), both inside and outside the agency, to identify key resources and ecosystem components and the quantifiable metrics to monitor them. This would allow the development of management and monitoring

strategies to ensure that the fundamental Service-wide goal of conserving park resources and preventing impairment is achieved in all NPS areas in Alaska. The NPS's Inventory and Monitoring Program is now providing information that will likely prove useful in developing baselines for natural conditions of the traditional wildlife metrics. Another tool that has promise, and has had some limited use in Alaska already, is Structured Decision Making (SDM). SDM models could be utilized to help Parks identify acceptable levels of harvest, those changes which may constitute impairment, and effects of human actions on natural systems. In addition, innovative partnerships with other agencies, governments, and/or the private sector may prove helpful. The NPS should be aware that substantial additional resources, both financial and personnel, may be required to complete this undertaking.

Table 1. Authorization of Wildlife Harvest on Federal Lands in NPS Areas in Alaska

| <u>Unit¹</u> | <u>Subsistence Harvest</u> | <u>Sport Harvest</u> |
|-----------------------------|----------------------------|----------------------|
| Alagnak Wild River | Yes | Yes |
| Aniakchak NM | Yes | No |
| AniakchakNPr | Yes | Yes |
| Bering Land Bridge NPr | Yes | Yes |
| Cape Krusenstern NM | Yes | No |
| Denali NP (pre-ANILCA) | No | No |
| Denali NP (ANILCA addition) | Yes | No |
| Denali NPr | Yes | Yes |
| Gates of the Arctic NP | Yes | No |
| Gates of the Arctic NPr | Yes | Yes |
| Glacier Bay NP | No | No |
| Glacier Bay NPr | Yes | Yes |
| Katmai NP | No | No |
| Katmai NPr | Yes | Yes |
| Kenai Fjords NP | No | No |
| Klondike Gold Rush NHP | No | No |
| Kobuk Valley NP | Yes | No |
| Lake Clark NP | Yes | No |
| Lake Clark NPr | Yes | Yes |
| Noatak NPr | Yes | Yes |
| Sitka NHP | No | No |
| Wrangell St. Elias NP | Yes | No |
| Wrangell St. Elias NPr | Yes | Yes |
| Yukon Charley NPr | Yes | Yes |

¹NP=National Park, NPr=National Preserve, NM=National Monument, NHP=National Historic Park

“The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land... In short, a land ethic changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such.”

Aldo Leopold

The Department of the Interior protects and manages the nation’s natural resources and cultural heritage; provides scientific and other information about those resources; and honors its special responsibilities to American Indians, Alaska Natives, and affiliated Island Communities.

NPS 965/120890, May 2013

National Park Service
U.S. Department of the Interior



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