The Alaska Public Survey : a Comprehensive Assessment of Recreational Values and Use Patterns and Natural Resource Management

Roger N. Clark, Darryll R. Johnson, and Donald R. Field

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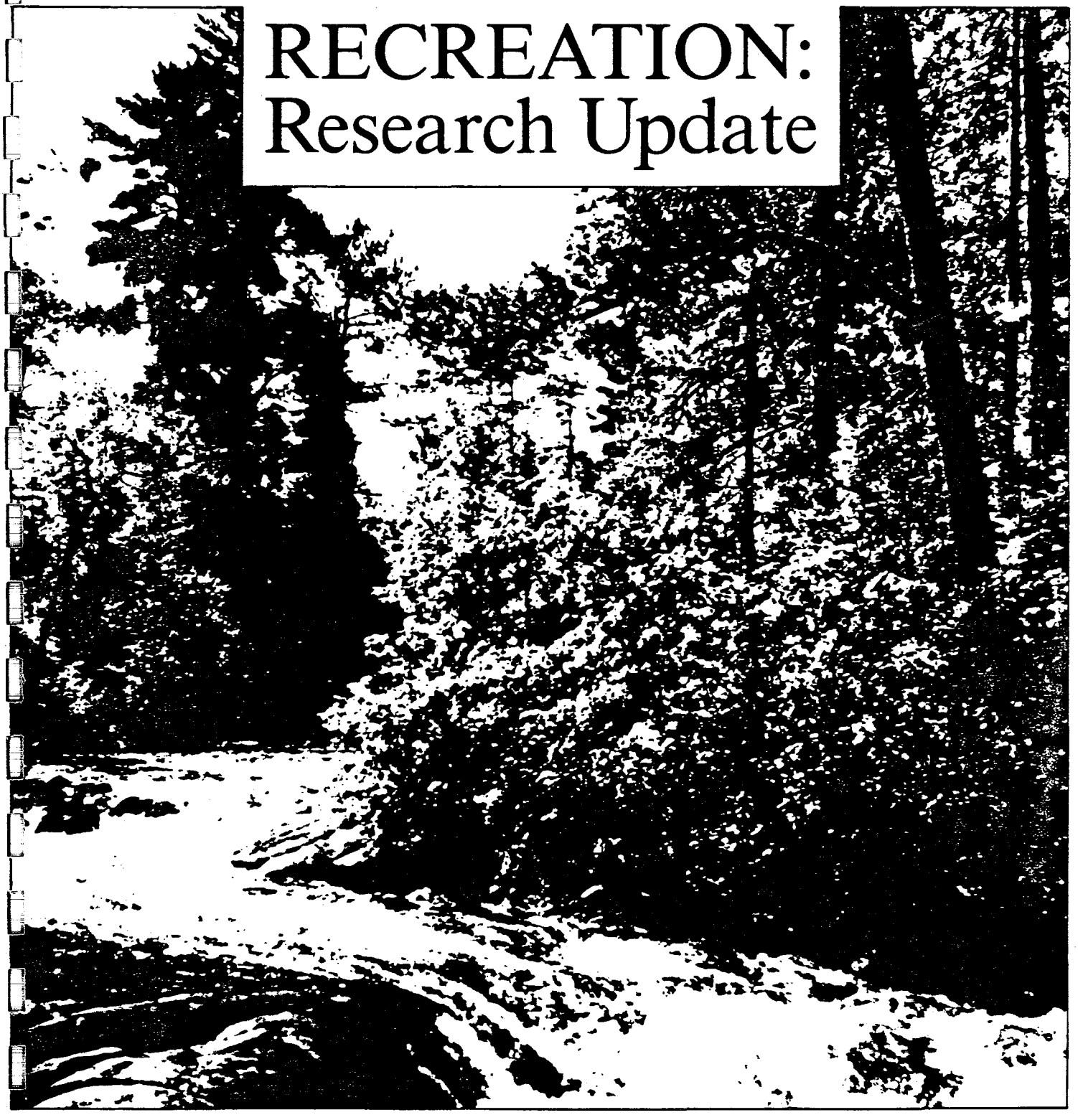
FOREST & RIVER RECREATION: Research Update



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FOREST AND RIVER RECREATION:

RESEARCH UPDATE

Selected papers presented in the Forests and Rivers Content Area at the Symposium on Leisure Research, sponsored by the National Recreation and Park Association, October 25-27, 1981, Minneapolis, Minnesota.

Technical Coordinator
David W. Lime
Project Leader, Recreation Research
USDA Forest Service
North Central Forest Experiment Station
1992 Folwell Avenue
St. Paul, Minnesota 55108

FOREWORD

The symposium on Leisure Research was held October 25-27, in conjunction with the 1981 National Recreation and Park Association Congress for Recreation and Parks in Minneapolis, Minnesota. More than 300 scientists, educators, planners, and managers attended representing a variety of local, state, and federal organizations.

The symposium was represented by about a dozen research content areas, including over 125 papers dealing with a spectrum of recreation issues. The 31 papers in this volume were presented in four General Sessions and one Poster Session under the content area Forest and Rivers. Some papers presented in these sessions are not included.

The papers presented herein are arranged under four themes or issues: (1) visitor satisfaction, (2) choosing activities and places, (3) human dimensions in fish and wildlife management, and (4) visitor management. These four themes served as the focus for a General Session and papers were presented orally followed by discussion. The Poster Session included presentations from each of the four themes. Consequently, these papers appear under the theme most representative of their content. Further, the session coordinators for each of the four sections have an introductory paper about the theme.

David W. Lime, Project Leader for the River Recreation Management Research Project of the North Central Forest Experiment Station was the coordinator for the content area Forests and Rivers. Dennis B. Probst, Shepardstown College, West Virginia and David W. Lime coordinated the session on Visitor Satisfaction; Timothy Knopp, University of Minnesota, St. Paul, Minnesota and Earl C. Leatherberry, North Central Forest Experiment Station, St. Paul, Minnesota coordinated the session on Choosing Activities and Places. Dorothy H. Anderson, North Central Forest Experiment Station, St. Paul, Minnesota and Michael Manfredo, Oregon State University, Corvallis, Oregon coordinated the session on Human Dimensions in Fish and Wildlife Management. The fourth session, Visitor Management, was coordinated the John H. Schomaker, North Central Forest Experiment Station, St. Paul, Minnesota and Joseph Roggenbuck, Virginia Polytechnic Institute, Blacksburg, Virginia.

We wish to thank the National Recreation and Park Association for supporting our participation in the Symposium on Leisure Research. Special appreciation is extended to Chrystos D. Siderelis, North Carolina University, Raleigh, North Carolina, the overall Symposium Coordinator.

The papers are printed here essentially as submitted by the authors except for some minor copy editing to insure uniformity of style. It should be noted, however, that all papers herein were subjected to considerable technical review by peers after their initial submission to the Forests and Rivers coordinators.

CONTENTS

CHOOSING ACTIVITIES AND PLACES

CONCEPTS OF SATISFACTION AND EXPECTATIONS

THE ALASKA PUBLIC SURVEY--A COMPREHENSIVE ASSESSMENT OF RECREATIONAL VALUES AND USE PATTERNS AND NATURAL RESOURCE MANAGEMENT

Roger N. Clark, Research Social Scientist,
Wildland Recreation Research,
USDA Forest Service,
Pacific Northwest Forest and Range Experiment Station,
Seattle, Washington,
Darryll R. Johnson, Regional Sociologist,
and Donald R. Field, Associate Director,
Science and Technology,
USDI National Park Service,
Pacific Northwest Region,
Seattle, Washington

Resource managers in all parts of the United States are facing mandates that often conflict. On the one hand, they must develop programs that insure a sustained flow of commodities from a variety of increasingly scarce resources. On the other, they must insure that the programs they develop protect and enhance recreational, aesthetic, and lifestyle values. Comprehensive information on recreational use patterns and aesthetic and lifestyle values is necessary to formulate and evaluate the consequences of alternative management programs.

Information needs on social issues in Alaska are apparent to an even greater degree. Land exhanges under the Alaska Native Claims Settlement Act (Public Law Number 92-203, 1971) and the Alaska National Interest Lands Conservation Act (Public Law Number 96-487, 1980), have resulted in reallocation of millions of acres of public lands. Much of this land (as well as the rest of Alaska) is in a relatively natural condition compared with other places in the United States. As this land changes ownership, new or modified resource management programs follow, resulting in a changing relationship between people, social institutions, and the environment. Perhaps long-range planning in Alaska more than elsewhere, can benefit from a comprehensive, coordinated, and standard information base for forecasting and monitoring outcomes of alternative land use programs.

The current changeable situation in Alaska makes the need for such baseline information a high priority. In this paper, we describe a recent response by agency and university research personnel to fulfill some of these needs.

THE ALASKA PUBLIC SURVEY

Background

The extensiveness of ongoing decision making in Alaska and the need for information planning (outlined above) resulted in several independent research efforts. These were initiated concurrently by the USDA Forest Service, USDI National Park Service, USDI Bureau of Land Management, and State of Alaska. A great deal of overlap was evident in the independent research interests, and these commonalities pointed to numerous possible benefits of cooperation.

The first benefit was cost: Survey research extensive enough to provide reliable information is expensive, and recreation research funding was limited. Second, a combined approach results in a standard data base badly needed for the comprehensive planning efforts underway in Alaska. Third, a cooperative study could result in baseline data extensive enough to guide future interagency research, planning, and management (unique by national standards). Fourth, the joint study greatly reduced the potential impact on Alaska residents, because they were sampled once (with smaller total sample) rather than four or more times. Finally, the cooperative effort examined the complete social system, cutting across artificial agency boundaries that would have confined independent research efforts.

To realize these benefits and accomplish a holistic understanding of relations between resources, recreation, and livelihood in Alaska, a comprehensive design was created that focused on two major users of these resource systems. The first component, the "Alaska Public Survey" (APS), provides a broad view of residents' interactions with resources in both work and leisure. The second component, the "Alaska Cruiseship Passenger Study," focused on recreational use by major non-resident clientele in southeast Alaska. Both components, though contrasting in methodology and content, provide complementary information that makes up a major overview of use of important resources in Alaska. The studies of Alaska residents and cruiseship passengers provide the basis for extensive analysis of recreation and related human values and natural resource management.

In the following description of methods and selected potential uses of the APS, we emphasize the sections of the survey relating to marine recreation.

Objectives

The objectives reflected the information needs of the participating agencies and guided the development of the survey:

1. Assess the extent and nature of recreational activity and travel patterns in the coastal marine recreation system in southeast and southcentral Alaska.
2. Determine how characteristics of different locations affect the nature and extent of use of sites, shown by the types of activities and perceived attractions at each area.
3. Determine the availability of alternative locations for marine recreation and how closely substitute sites provide the attractions of recreationists' favorite places.
4. Determine the extent of participation by regional residents in a variety of outdoor recreation activities--travel patterns, general location or participation, use of locations administered by different agencies, unfulfilled desires of participants, and constraints on participation.
5. Determine the extent of subsistence hunting and fishing as it contributes to both livelihood and recreational enjoyment.
6. Assess residents' motives for and satisfactions from living in Alaska.
7. Assess responses to National Forest policy issues and attitudes about various forest outputs.
8. Determine how socio-demographic background characteristics are related to attitudes about resources, lifestyle, and recreational activity.

Methodology

The Alaska Public Survey consists of 2,888 interviews with householders in the southeast, south-central and interior regions of Alaska from June through December of 1979. The interviews (comprised of three versions designed to allow many questions) were completed in about 1 hour. A multi-stage cluster sampling design was constructed for each region to select households from which individuals over 18 were randomly chosen to interview. Prior to analysis the data were weighted, based on community sampling fractions, to accurately profile the communities and regions included in the survey. The sampling design and data collection were the primary responsibility of personnel at the Institute of Social and Economic Research, University of Alaska.

Coding of data for keypunching (involving more than 1,000 variables and 25 cards of data per case) was completed by the University of Washington under supervision of employees of the Cooperative Park Studies Unit, College of Forest Resources. A rigid process of review, designed to minimize coding errors, was used. Intensive computer editing of the data was completed before data analysis.

Types of Data Collected

Reflecting the objectives of the survey, two types of information were obtained in the APS. First, data that are typically sought in surveys (preferences, attitudes, activity patterns) were the main focus of the interview. It was organized in the following sections: food gathering activities; salt-water related recreation activities; general (non-marine) recreation activities; state recreation programs and issues; National Forest use, programs, and issues; employment-related concerns; community perceptions; and background characteristics of respondents.

Second, for the marine recreation portion of the survey, specific data related to sites were obtained. Each respondent was asked to indicate on a map actual places visited during the 12 months before the interview. Up to 6 overnight sites and 8 day sites were allowed. Further, respondents were asked to identify the sites they visited most often, as well as their favorite site. The location of these sites has been digitized, allowing analysis of geographical data in relation to other things known about these places (e.g., physical and biological attributes). For each site that respondents identified as their most often visited or favorite place, information was obtained identifying activities engaged in, travel mode, and seasons in which the sites were visited. For favorite sites, the potential consequences of various resource management activities on continued use were also examined.

There are undoubtedly many places used by Alaska residents that were not mentioned. This situation is a particular concern in trying to judge the importance of areas for recreation where sites were not indicated. The fact that an area was not indicated or visited does not mean that it is not used or that it does not have important recreation qualities. Through the analysis we are conducting, attributes associated with favorite recreation sites and various activities will be identified. Then the areas throughout coastal Alaska can be examined to ascertain if they have these qualities. We believe the information about actual sites will be valuable in helping to better understand the relationships between recreation activities,

site qualities, and other resource uses. Some of these data are briefly summarized in the next section.

SELECTED RESULTS RELATED TO RECREATION

Preliminary analysis of the data allows us to make the following generalizations about some recreation activities and issues in southeast and south-central Alaska. The conclusions we draw here are tentative and subject to revision. More intensive analysis is currently underway.

1. Alaska is noted for its wilderness, abundant coastline (particularly in southeastern Alaska), and array of recreational attractions and opportunities. It is not surprising that most people list these reasons for coming to Alaska. Living near water, being close to a wilderness environment, good hunting and fishing, and recreation opportunities were identified by most residents as important reasons for their decision to live in Alaska.

2. Use of public lands by residents is extensive. About a third of all respondents visited one or more National Parks in Alaska during the year preceding the survey, with use much higher in locations close to areas managed by the National Park Service. For example, in Sitka 92 percent had visited Sitka National Historical Park. Most respondents (95 percent in southeast Alaska, 73 percent in south-central) have visited a National Forest in Alaska at some time. While in the National Forests, many types of areas have been used by residents:

Recreation areas used	Southeast Alaska (Percent)	South-cental Alaska
Trails	76	42
Picnic sites	74	49
Hunting and fishing areas	63	27
Logging roads for recreation	43	12
Public recreation cabins	41	12

Differences between the two regions reflect, in part, unequal access to the types of opportunities mentioned.

3. Use of flora and fauna for food is a major activity. About three-quarters of all respondents indicated they engaged in food-gathering activities of some kind, with fishing and berry picking the most popular. In light of subsistence versus recreation concerns, the results show that many people classified their favorite foodgathering activity as subsistence or mostly subsistence (30 percent in southeast Alaska, 19 percent in south-central). To what extent subsistence activities are a part of resident recreation and vice versa is an issue for further analysis.

4. Coastal recreation is a major activity. Slightly less than half the respondents went on an overnight trip to coastal areas the preceding year. Given the relatively more intimate association of southeastern communities with marine environments, it is not surprising that a higher proportion of those residents reportedly engage in marine activities (particularly on day trips) compared with residents in south-central Alaska.

5. The same types of activity patterns occur at places people identify as their "favorite" and "most often visited" places. However, the reasons they give for why a site is favorite differ in subtle but important ways from reasons given for places visited most often. Although the whole range of possible reasons show up for both types of sites, reasons for favorite place are remoteness, and various land characteristics, such as beaches. Reasons given for most often visited place are distinguished by qualities of access, convenience, facilities, and particular activities.

6. A variety of influences would make residents favorite sites less attractive:

Possible influences at favorite site	Southeast Alaska (Percent indicating less attractive)	South-central Alaska
Clearcuts	80	77
New houses or buildings	80	56
New logging	77	67
Mine tailings	77	69
New roads	77	44
Log storage	76	54
More recreationists	73	70
Offshore drilling	72	55
Airplanes and helicopters	45	34
Shipping traffic	43	35
Commercial fishing boats and gear	22	19

But there are also people who do not perceive negative effects, and even some who believe that such changes would make their favorite sites more attractive.

7. Although many people indicate that their favorite sites would be less attractive with certain changes, a smaller percentage indicated they would stop going there if those things occurred. Just what the "threshold of disruption" has to be before people choose not to use a site cannot readily be determined. But for many people it seems that although they may lose the "icing on the cake" if changes occur,

they still will have the cake. Others would find the "cake without the icing" unpalatable. It is the latter group that will be most disenfranchised if appropriate substitutes are not readily available. Further analysis should provide guidance for managers about how to recognize such problems and plan for an equitable resolution in light of the diversity inherent in the use patterns and preferences of residents.

These data and other data not mentioned here point out that planning for and choosing between various types of recreation opportunities in Alaska is not an either/or situation. Although at the political level there has been a polarization of views about use of Alaska's resources (that is, preservation versus development), results from the APS indicate a desire for recreational diversity across a wide range of opportunities and settings, a situation little different from that found in the "lower 48" States (Clark and Stankey 1979).

RELEVANCE OF FINDINGS FOR RESOURCE PLANNING AND MANAGEMENT

Most of the information the APS provides is useful to federal and state agencies and to private land owners in Alaska whose programs may affect recreation opportunities or other values related to lifestyle. The survey data allow comparison of different segments of the population and different geographic regions. As a baseline, assuming proper monitoring, these data will allow the determination of trends and the projection of possible shifts in recreation patterns, jobs, etc., as the population in Alaska changes and as resource management programs are implemented. Some of the specific uses of the APS findings related to recreation are briefly described below.

1. The baseline data will allow resource managers to better determine possible consequences of alternative management strategies and will allow researchers to link results of future studies to a comprehensive data base. Furthermore, because the APS was conducted near the 1980 census, future adjustment can be made to key variables in the survey in conjunction with census updates.

2. The APS data base allows resource managers the opportunity to evaluate the possible effects of resource management and ownership changes on existing recreation sites and activities. Planners and managers will be able to ascertain the consequences of changes on recreationists early in the planning process.

3. Managers of coastal recreation resources can benefit from knowing which types of locations receive greater or less recreational use, which receive differing types of recreation activities, and which are particularly sensitive to various human-caused impacts. Important characteristics of sites an activities that are related to choices people make about where to recreate will be identified Geographical areas not included in the survey can then be examined to determine if they have any of these attributes. Managers will then be in a better position to determine locations tha might require special management consideration to protect important physical, biological, or social qualities of concern to users.

4. The ability to ascertain place-specifi changes caused by resource management actions will allow managers to: predict changes in use patterns and user satisfaction as a result of management; identify reasonable substitutes if and when important sites and destroyed; plan fo a range of recreation opportunities (Clark and Stankey 1979) to facilitate residents' recreation choices within reasonable distances from communities; and locate, schedule, and design timber harvest activities (as well as mining, oil development, etc.) with better knowledge of the consequences on recreation settings, activities, and users. The important "favorite" and "most often visited" sites may require special attention, and although effects of resource management on such places are not necessarily bad, having information available makes it possible to mitigate negative and maximize positive effects of multiple use management programs.

5. Much of the information in the APS wil be useful in sensitizing managers about recreation issues and areas of concern: facilitating users' choices about where to recreate to fulfill their needs; designing public involvement and information programs tha are sensitive to certain uses or issues of loca or regional populations; developing visitor profiles (who are the clientele for specific areas? where do they come from and why do they choose one place instead of another?); assessing the relative importance respondents place on foodgathering activities and whether they perceive such use as recreation, subsistence, or a combination of both.

6. The survey results will be useful in planning and management of wilderness (or other special areas). Specifically, the place-specific nature of the study will allow managers to: assess existing uses and users just prior to designation of areas under the Alaska National Interest Lands Conservation Act; ascertain attitudes toward various management issues from area users; determine likely consequences of area designation and proposed actions both within and outside the area, and whatever internal or external influences may

exist or emerge that may affect use of an area. For example, will plans result in displacing certain uses from one location to another?

REPORTS IN PROGRESS

Efforts continue to prepare a variety of reports on specific recreation issues and data from the Alaska Public Survey--an examination of the interrelationship between outer continental shelf oil development and marine recreation; a detailed analysis of the relationship between marine recreation activities and timber management activities; an analysis of the variability of marine recreation activities within communities, agency management areas, and specific geographic regions; a description of recreation activities along the Inside Passage, with special emphasis on how existing recreational uses may be affected by resource extraction activities such as logging and mining; an analysis of recreational use patterns in specific National Monuments or wilderness areas in southeast Alaska; a description of attributes of favorite recreation sites in coastal forests of Alaska including availability of suitable substitutes; and an assessment of site-specific upland and marine recreation activities for the Chugach National Forest and the Kenai National Moose Range.

We would like to encourage our research and management colleagues to contact us about areas of interest related to the survey. This data base presents an opportunity to conduct comparative analyses where other similar data sets are available. We will be happy to discuss possible studies.

This report is based on the study of residents and resources in southeast, southcentral, and interior Alaska, A comprehensive interagency analysis of recreation quality of life, and related issues. Cooperating agencies are: USDA Forest Service, Alaska Region and Pacific Northwest Forest and Range Experiment Station; USDI Bureau of Land Management, Outer Continental Shelf Office: USDA National Park Service, Pacific Northwest Region and Cooperative Park Studies Unit, University of Washington; State of Alaska, Division of Parks; University of Alaska, Institute of Social and Economic Research; and University of Washington College of Forest Resources.

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