

Fishery Data Series No. 10-07

Ayakulik River Visitor Use Census, 2003 and 2004

by

Donn A. Tracy

and

Julia S. Schmidt

March 2010

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Measures (fisheries)	
centimeter	cm	Alaska Administrative Code	AAC	fork length	FL
deciliter	dL			mid eye to fork	MEF
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	mid eye to tail fork	METF
hectare	ha			standard length	SL
kilogram	kg			total length	TL
kilometer	km	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.		
liter	L	at	@	Mathematics, statistics	
meter	m			<i>all standard mathematical signs, symbols and abbreviations</i>	
milliliter	mL	compass directions:		alternate hypothesis	H _A
millimeter	mm	east	E	base of natural logarithm	<i>e</i>
		north	N	catch per unit effort	CPUE
Weights and measures (English)		south	S	coefficient of variation	CV
cubic feet per second	ft ³ /s	west	W	common test statistics	(F, t, χ^2 , etc.)
foot	ft	copyright	©	confidence interval	CI
gallon	gal	corporate suffixes:		correlation coefficient	
inch	in	Company	Co.	(multiple)	R
mile	mi	Corporation	Corp.	correlation coefficient	
nautical mile	nmi	Incorporated	Inc.	(simple)	r
ounce	oz	Limited	Ltd.	covariance	cov
pound	lb	District of Columbia	D.C.	degree (angular)	°
quart	qt	et alii (and others)	et al.	degrees of freedom	df
yard	yd	et cetera (and so forth)	etc.	expected value	<i>E</i>
		exempli gratia	e.g.	greater than	>
Time and temperature		(for example)		greater than or equal to	≥
day	d	Federal Information Code	FIC	harvest per unit effort	HPUE
degrees Celsius	°C	id est (that is)	i.e.	less than	<
degrees Fahrenheit	°F	latitude or longitude	lat. or long.	less than or equal to	≤
degrees kelvin	K	monetary symbols		logarithm (natural)	ln
hour	h	(U.S.)	\$, ¢	logarithm (base 10)	log
minute	min	months (tables and figures): first three letters	Jan,...,Dec	logarithm (specify base)	log ₂ , etc.
second	s	registered trademark	®	minute (angular)	'
		trademark	™	not significant	NS
Physics and chemistry		United States (adjective)	U.S.	null hypothesis	H ₀
all atomic symbols		United States of America (noun)	USA	percent	%
alternating current	AC	U.S.C.	United States Code	probability	P
ampere	A	U.S. state	use two-letter abbreviations (e.g., AK, WA)	probability of a type I error (rejection of the null hypothesis when true)	α
calorie	cal			probability of a type II error (acceptance of the null hypothesis when false)	β
direct current	DC			second (angular)	"
hertz	Hz			standard deviation	SD
horsepower	hp			standard error	SE
hydrogen ion activity (negative log of)	pH			variance	
parts per million	ppm			population	Var
parts per thousand	ppt, ‰			sample	var
volts	V				
watts	W				

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by
Donn A. Tracy
Alaska Department of Fish and Game, Division of Sport Fish, Kodiak
and
Julia S. Schmidt
Alaska Department of Fish and Game, Division of Sport Fish, Kodiak

Alaska Department of Fish and Game
Division of Sport Fish, Research and Technical Services
333 Raspberry Road, Anchorage, Alaska, 99518-1565

March 2010

This investigation was partially financed by the Federal Aid in Sport Fish Restoration Act (16 U.S.C. 777-777K) under Projects F-10-19 and F-10-20, Job No. S-2-10.

ADF&G Fishery Data Series was established in 1987 for the publication of Division of Sport Fish technically oriented results for a single project or group of closely related projects, and in 2004 became a joint divisional series with the Division of Commercial Fisheries. Fishery Data Series reports are intended for fishery and other technical professionals and are available through the Alaska State Library and on the Internet: <http://www.sf.adfg.state.ak.us/statewide/divreports/html/intersearch.cfm> This publication has undergone editorial and peer review.

Donn A. Tracy,
Alaska Department of Fish and Game, Division of Sport Fish,
211 Mission Road, Kodiak, AK 99615-6399, USA
and
Julia S. Schmidt,
Alaska Department of Fish and Game, Division of Sport Fish
211 Mission Road, Kodiak, AK 99615-6399, USA

This document should be cited as:

Tracy, D. A., and J. S. Schmidt. 2010. Ayakulik River visitor use census, 2003 and 2004. Alaska Department of Fish and Game, Fishery Data Series No. 10-07, Anchorage.

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ADF&G, Division of Sport Fish, Research and Technical Services, 333 Raspberry Road, Anchorage AK 99518 907-267-2375.

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ABSTRACT

The Alaska Department of Fish and Game, Division of Sport Fish and the Kodiak National Wildlife Refuge conducted a visitor use census in 2003 and 2004 along the Ayakulik River, located on Kodiak Island, Alaska, between June 1 and July 7. The census was initiated in response to recent stakeholder concerns regarding visitor quality of experience pertaining to use of Kodiak National Wildlife Refuge uplands during the Chinook salmon fishery. The census study design documented use levels and locations during the 2003 and 2004 sport fishery as well as visitor opinions and preferences on development of future management policy. In 2003 a total of 1,705 visitor days were documented during the study period by 144 guided and 196 unguided visitors comprised of 40 Kodiak Island Borough residents, 39 other Alaska residents, 190 other U.S. residents, and 72 nonresident aliens. Visitor groups averaged six persons and visitor length of stay averaged 7 days. Peak daily visitation was 85 persons. Of the total visitors 340 were anglers who harvested 434 Chinook salmon and released 4,312. Overall visitor satisfaction was high (95%) and visitor preferences and opinions were mostly similar between guided and unguided visitors and residency groups. In 2004 a total of 1,372 visitor days were documented during the study period by 272 visitors consisting of 46 Kodiak Island Borough residents, 34 other Alaska residents, 150 other U.S. residents, 31 nonresident aliens, and 11 persons with unknown residency. A total of 114 visitors were guided while 158 were unguided. Visitor group size averaged four persons and visitor length of stay averaged 5 days. Peak total daily visitation was 79 persons. During the study period 401 Chinook salmon were harvested and 7,049 were released. Overall visitor satisfaction was high (95%) and visitor preferences and opinions were similar between guided and unguided visitors and by residency groups.

Key words: stakeholders, visitor use census, Ayakulik River, Kodiak Island, Chinook salmon, *Oncorhynchus tshawytscha*, Kodiak National Wildlife Refuge.

INTRODUCTION

AYAKULIK RIVER SPORT FISHERY

Ayakulik River, located on the south end of Kodiak Island approximately 85 air miles from Kodiak city, supports a popular Chinook salmon *Oncorhynchus tshawytscha* sport fishery as well as smaller fisheries targeting coho salmon *O. kisutch*, sockeye salmon *O. nerka*, and steelhead *O. mykiss*. Most angler effort for Chinook and sockeye salmon occurs during June, while effort on coho salmon and steelhead occurs in late August through September. All sport fisheries are currently concentrated in a river section approximately 9 miles long between the confluence of the Ayakulik and Red rivers and Ayakulik Lagoon (Figure 1). All but the last river mile in this section is located within the boundaries of Kodiak National Wildlife Refuge (KNWR). The lower mile is privately owned, predominately by Ayakulik Native Corporation.

The Alaska Department of Fish and Game (ADF&G) annually operates a fish counting weir near the mouth of Ayakulik River (see Appendix A1 map) to enumerate salmon species immigrating upriver as well as outmigrant steelhead and Dolly Varden. ADF&G uses these weir counts to monitor the health of fish stocks and manage local commercial, sport, and subsistence fisheries. During the most recent 10-year period, counts of Chinook salmon through the weir have annually ranged from approximately 12,000 to 25,000 fish and averaged nearly 16,000 fish. Estimates by ADF&G of sport caught Chinook salmon during the same period have averaged about 750 fish harvested annually with 5,000 fish released (Schwarz et al. *In prep*).

The ADF&G Division of Sport Fish classifies Ayakulik River Chinook salmon as a Level III sport fishery (Schwarz et al. 2002), which is characterized as producing a relatively low yield but having a high monetary cost for participation. Level III fisheries are typically remote, often in special management areas, and mostly utilized by guided anglers. Anglers who participate in this type of fishery often have expectations of high catch rates in uncrowded conditions.

SOCIAL MANAGEMENT ISSUES

Under the recently developed Division of Sport Fish Strategic Plan (ADF&G 2002), the Division strives to provide diverse fishing opportunities and to resolve the jurisdictional issues of fisheries management. One of seven core values listed in the plan is the “Diverse Utilization of Fishery Resources,” which is specifically addressed in one of the plan’s goals: “To sustain recreational fishing opportunities while optimizing social and economic benefits from these opportunities.”

This goal is complimented in the plan by five strategic objectives, one of which is to “assess and meet the demand for a variety of recreational fishing experiences.” Essential strategies also listed in the plan as necessary to accomplish this objective include but are not limited to the following:

1. Determining the fishing opportunities sought by the angling public with regard to resident, anadromous, and marine fishes.
2. Develop a wide range of fishing opportunities, recognizing the wide variation among anglers relative to income, age, experience, ability, and the kinds of opportunities they seek.
3. Manage for the range (regulatory structure, quantity and/or quality of fish, and social conditions of the fishery) of recreational fishing experiences authorized by regulators.
4. Provide regulators with management options that meet the demand for recreational fishing opportunities.

Over the past several years, both ADF&G and KNWR have received numerous comments from Ayakulik River visitors regarding their expected versus actual experience during the Chinook salmon fishery. These comments have included assertions of productive fishing areas being monopolized by adjacent visitor camps, large groups of visitors staying for extended periods of time, littering, and general overcrowding along the river. In response to these concerns, during 2002 the two agencies cooperatively initiated a public process to identify the types of experience visitors desired and develop future management options to accommodate those preferences. Between November and December 2002 more than 2,000 letters were sent soliciting input from past Ayakulik River visitors and a public meeting was held in the city of Kodiak, after which the comments received from each of these venues were summarized and presented to the Kodiak Fish and Game Advisory Committee (KAC). The KAC appointed a work group in January 2003 to study the Ayakulik River use issue and develop recommendations on formulation of a management plan or policy reflecting the interests of users.

The work group met on three occasions in January and February 2003 to review public comments and work with both agencies to develop plans to gather additional information during the 2003 Chinook salmon fishery. The following topics from public comments were discussed by the work group:

1. Anglers camping adjacent to productive fishing areas for prolonged periods results in lost fishing opportunity for others.
2. Numbers of non-guided anglers should be limited to alleviate overcrowding (guided anglers are currently limited within KNWR boundaries to 26 persons per day under terms of a special use permit issued to 6 authorized guides).

3. Limits should be placed on angler length of stay and party size with the goal of providing increased fishing opportunity for all users.
4. Littering during the fishery is a problem that should be addressed.

In order to address several of these issues the two agencies agreed to cooperatively implement the following measures during the 2003 fishery:

1. Designate seven of the more popular fishing areas along the river as voluntary camping closure zones.
2. Produce and distribute a public information brochure (Appendix A1), which (a) describes the initiative by the agencies and work group to address visitor use during the Chinook salmon fishery; (b) identifies the seven voluntary camping closure zones; (c) recommends limiting the length of stay to 7 days and party size to no more than six individuals; and (d) provide user tips, educational information, and current regulations on items such as disposal of garbage.
3. Similar to the facility provided by KNWR at Bare Creek (see Appendix A1 map) during the past several years, erect an electric perimeter fence and place bear-proof boxes at the public easement located next to the Ayakulik lagoon and, in cooperation with air taxi operators, allow use of this area to temporarily store garbage which can not be immediately hauled out.
4. Conduct an on-site visitor use census to collect information on angler effort and catch, document visitor attributes, evaluate the effectiveness of the voluntary camping restrictions, and determine user preferences to guide development of future management policies that will improve visitor experience.

Following completion of the 2003 census, the work group reconvened with agency staff in February 2004 and, after reviewing the study results, recommended repeating the census during the 2004 season. The second year of the study was virtually identical to the census conducted in 2003.

OBJECTIVES

The objectives for the Ayakulik River visitor census study were:

1. Document the attributes of daily visitor use between June 1 and July 7 by:
 - a) location – individual and group area(s) of daily use for camping and fishing.
 - b) activity –angling or other use;
 - c) residency; and
 - d) visitor status (unguided, guided, member of a fishing club).
2. Document individual angler catch and effort, including number of days fished and number of Chinook and sockeye salmon, steelhead, and Dolly Varden harvested and released;
3. Evaluate overall effectiveness of the voluntary camping closures by the following criteria:

- a) incidence of visitor displacement attributable to non-compliance;
 - b) visitor response on whether closures provided increased fishing opportunity; and
 - c) level of compliance at the three uppermost designated closure zones.
4. Identify user preferences on aspects of visitor experience and obtain recommendations for additional management actions to accommodate those preferences.

This report summarizes results of the 2003 and 2004 visitor use census. Statistics generated by tabulation of the census data provide: (1) the level, location, and patterns of visitor use of the Ayakulik River uplands during the 2003 and 2004 Chinook salmon sport fishery, (2) they show the impact of visitor use on angler harvest and catch in the fishery, and (3) categorized responses to census questions gauging visitors opinions and perspectives provide useful new information for stakeholders, policymakers, and the general public.

The census data contained in this report can only be used to make inferences regarding visitors to Ayakulik River in 2003 and 2004 during the time interval the census was conducted. Visitors to the river during this 2-year period may be similar to visitors during past years or during future years. However, the census results do not represent a probability-based sample of these past or potential-future visitors. Accordingly, visitors to the fishery during 2003 and 2004 only represent a subset of the overall important population(s) that may be of interest.

METHODS

Dates chosen for the study period were June 1 through July 7. These dates were selected based on user data previously collected during Ayakulik River Chinook salmon fisheries by ADF&G (Schwarz et al. 2002, *In prep*) and KNWR (Squibb 1992, 1995) which indicated that most visitation occurs during this time frame.

To achieve the study objectives, an operational plan was devised for implementing the census. Verbal interviews were conducted with visitors as they exited the fishery and visitors were also asked to complete a brief written questionnaire at the same time. Most visitors access the Ayakulik River via sea plane just above the Bare Creek confluence; some also exit from this location. Others float downstream and depart the river from Ayakulik Lagoon. During some years when aircraft cannot land on the lagoon due to low water conditions, most visitors exit the river above the Bare Creek confluence. In addition to guided and unguided visitors who remain along the upper river and those that subsequently travel downstream, two permanent lodge operations near the river mouth also accommodate visitors during the Chinook salmon fishing season.

In addition to the data gathered from verbal and written visitor responses, during the census period voluntary compliance at the three uppermost camping closure zones was assessed daily by on-site agency personnel who recorded the presence or absence of overnight visitors in these areas.

DATA COLLECTION AND SUMMARY ANALYSIS

Throughout the census, visitors were contacted by on-site agency personnel deployed at each exit location. At the start of their trip, most visitors (including both those accessing the river from Bare Creek as well as from the lower river lodge) were given an orientation on the census and

interim management measures so they were aware of the study and the types of questions they could expect from interviewers. Additionally, advance contact was made with one party of local resident visitors each year who indicated their intent (prior to the study) to access and exit the river in between these sites via personal aircraft.

Upon contact with agency personnel at the end of their trip, each visitor received a set of brief introductory remarks and was asked to participate in the census. Those that consented were then asked a series of questions to obtain the following information:

1. Date of arrival and length of stay (including the day of their departure);
2. Party size, excluding any guides;
3. Campsite location(s) and duration (defined as days spent camping along the river within corresponding United States Geological Survey DRG map section number boundaries);
4. Residency, categorized as (a) local (Kodiak Island Borough), (b) other Alaskan (non-local), (c) other U.S. (non-Alaska), or (d) alien non-resident;
5. Visitor status, (angler, subsistence user, other); and
6. Angler status (unguided, guided, fishing club).

Anglers were asked to provide additional information directly relating to their sport fishing activities, including each of the following items:

1. Total days fished,
2. Number of fish harvested by species, and
3. Number of fish released by species.

Following completion of the verbal interview, visitors were asked to complete a questionnaire designed to measure each visitor's experiences, opinions, motivations, and preferences relating to the voluntary camp closures and future management alternatives (Appendices B1 and B2)¹.

Respondents were asked to rank the following six management options² in terms of the perceived effect each would have on their enjoyment of a visit to Ayakulik River, and indicate how strongly they would support or oppose future implementation of one or more of these options.

1. Continuation of the voluntary camping closures,
2. Mandatory camping closures,
3. No camping restrictions (former status quo),
4. Limits on visitor group size,
5. Limits on visitor length of stay, and
6. Limits on daily numbers of visitors allowed on the river.

The questionnaire and verbal interview results for individual census participants were labeled with corresponding index numbers to allow cross-referencing of response data. Visitors

¹ Content and format of the written questionnaire varied slightly between years due to modifications made in response to the 2003 study results.

² The six management options included in the census questionnaire were selected based on public comments received by ADF&G and KNWR from stakeholder workgroup meetings prior to the census.

unwilling to be interviewed for some or all of specified information relating to their visit were recorded in the census data results along with any reason(s) given for the refusal.

As noted previously, during each day of the study period agency personnel deployed at Bare Creek surveyed the three uppermost voluntary camping closure zones (see Appendix A1) for the presence of overnight visitor camps. Recorded information included the survey date, specific camping closure zone, presence/absence of overnight visitor camps, and, whenever possible, also the number of camps and individuals situated within the closure zone.

Visitor responses for each question were summarized and reported either for all visitors contacted or for the proportion of contacted visitors that responded to a particular question. Additionally, separate summaries are reported for some questions by logical groupings of visitor types (i.e., residency).

Responses from verbal interviews at Ayakulik River weir and Bare Creek were summarized to determine visitor attributes and behaviors, the level and location of visitor use, and overall sport fishery catch and effort. All summarized angler status attributes presenting unguided anglers numerically or as a proportion of the overall group include individuals who identified themselves as belonging to fishing clubs.

Visitor preference and opinion responses were summarized by question as proportions for binomial (yes/no) and multiple choice answers in order to calculate overall results, and also to show results by visitor attribute, including angler status, and residency. Responses on campsite closure effectiveness and suggestions for future management action were summarized similarly.

Results from surveys by agency personnel for compliance with voluntary sport fish camping closures at the three uppermost sites were tallied and summarized as the number and proportion of days in the study period that non-compliance occurred at one or more of the three sites.

For the purposes of this report, procedures outlined in the project operational plan for conducting more in-depth analysis of the census data were not completed. Such procedures were prudently designed to account for important and standard data analysis parameters, including the effect of sampling variability on the precision of proportion estimates (i.e., percentages), and the potential bias of data results from non-responses to questions and responses influenced by extraneous factors (i.e., a guided visitor's sympathy toward the interests of their service provider). Accordingly, a more comprehensive analysis of the data according to guidelines provided in the operational plans should also be completed to test the relative accuracy of the census results presented here.

RESULTS

In 2003, a total of 341 Ayakulik River visitors were contacted during the June 1–July 7 study period (Table 1). These visitors accrued 1,705 visitor days during the Chinook salmon fishery. Exit statistics showed 188 visitors exited the fishery through the weir above Ayakulik Lagoon, 148 exited from Bare Creek, and one party of 5 visitors exited the fishery from a separate location via personal aircraft.

The following year (2004) a total of 272 individuals visited the Chinook salmon fishery between June 1 and July 7, 2004 accumulating an aggregate 1,372 days on Ayakulik River (Table 1).

During both years, all visitors agreed to verbal interviews with agency personnel at the conclusion of their trip. Just two visitors (in 2003) refused to provide responses to the written

questionnaire. However, fewer questionnaires than interviews were completed overall for several reasons. During each year of the census a number of guided visitors completed multiple daily fly-in trips to the river. Accordingly, the verbal interviews were completed for these visitors at the conclusion of each day trip; however, the written questionnaire was administered to each person only once to avoid duplicate visitor opinion and preference information from the same individual. Also, in a small number of cases, visitors departing the river immediately following the verbal interview were given a copy of the questionnaire and asked to return it to their guide or air taxi operator.

In 2003, a 7% non-response rate amongst the total visitor population consisted of the following circumstances: six questionnaires given to visitors departing the fishery were not returned; five individuals who exited the river in-between Bare Creek and Ayakulik Lagoon using private aircraft were interviewed but did not receive questionnaires; and five completed questionnaires were misplaced by agency personnel in the field.

In 2004, non-response rate of 10% (27 non-respondents) was principally due to visitors failing to return questionnaires received at the conclusion of their trip or mailed to them shortly thereafter. In each of the latter circumstances a follow-up letter was also sent requesting the completed questionnaire.

VISITOR ATTRIBUTES AND BEHAVIOR

All but one visitor in 2003 were anglers; the one exception identified himself as a subsistence user (Table 1). All visitors contacted during the 2004 census identified themselves as anglers. During both years a majority of visitors (>57%) were unguided, of which between 4% and 6% identified themselves as belonging to fishing clubs.

Most visitors were non-Alaskan U.S. residents (~55% during both years) followed by Alaska residents (~12%) and non-resident aliens (21% in 2003; 11% in 2004) (Table 1). In 2003, Alaska resident visitors were more evenly split between persons living within Kodiak Island Borough and those residing in other parts of the state; however in 2004 Kodiak residents outnumbered other Alaskans approximately by 25%.

Peak daily visitation during the 2003 study period of 85 persons occurred on June 18 and during 2004 the peak daily visitation of 79 persons was on June 15 (Table 2; Appendixes C1 and C2). The least number of visitors during a single day in 2003 was 15 persons on July 5, while in 2004 the lowest single day visitation of seven persons occurred on July 7. The 2003 daily average of 43 visitors on the river was achieved on 16 of 37 days in the census period; in 2004 a lower daily average of 36 persons was achieved on 18 of 37 days. A peak in visitation comprising approximately 50% of the total visitor days in 2003 occurred from June 17-22; in 2004 peak visitation occurred slightly earlier, from June 13-19 (Figure 2). Both years some guided and unguided anglers were present on the river most days (Figure 3). In 2003 unguided visitor numbers peaked on June 18 at 69 persons and visitation by guided anglers peaked at 27 persons on July 2 (Table 2). Unguided angler visitation also peaked at 69 persons in 2004, 3 days earlier than the preceding year. Peak visitation by guided anglers in 2004 (i.e., 26 persons) occurred on June 29 and July 1. The daily ratio of unguided to guided visitors was variable between years, ranging as high as 5:1 in 2003 and 10:1 during 2004. The overall difference in unguided to guided visitor ratios was divergent, at 2:1 in 2003 and 3:1, during the following year. Unguided visitors outnumbered those with guides on most days during both years of the study period, although guided visitors consecutively dominated the fishery after July 1. Visitors identifying

themselves as belonging to fishing clubs averaged six persons per day in 2003 and four per day the following year, and were most prevalent on a daily basis both years during the third week in June (Table 2). However, visitors in this category were absent from the river on 22 days in 2003 and on 15 days of the total study period in 2004 (Appendices C1 and C2).

Daily visitation by residency status was highly variable, although non-Alaskan U.S. residents made up the highest daily average proportion of visitors (~50%) during both years of the study and were the only group that consistently comprised at least 30% of all visitors on a given day (Figure 4; Appendices C1 and C2). This residency group also made up as many as 80% of all visitors on one or more days during the 2003 census and greater than 90% in 2004. Kodiak Island Borough residents generally were early visitors to the fishery, comprising as much as 45% of the daily visitation during the first week of June in 2003 and up to 35% during 2004. In 2003 maximum visitation by Kodiak residents occurred on June 19 at 14 persons, and peaked during 2004 at 18 persons on June 13 (Table 2). During both years Kodiak residents averaged approximately 15% of total visitors per day. Visitation by other Alaska residents averaged between 12 and 13% of daily totals both years, but peaked in 2003 during the second week of June at nearly 30% of all visitors per day, compared to a daily maximum of 35% recorded during 2004 on June 3-4. Other Alaskan residents were absent from the river on some days during both years, and peaked in 2003 at 11 persons on June 13 and at 13 persons on June 21 the next year. Visitation per census day by nonresident aliens averaged 14 persons (26% overall) and peaked at 37 persons on June 17-20 in 2003, compared to an average of just 8 persons per day and a peak of 17 persons during the same 4-day period in 2004. This residency group was also absent from the river on 6 days during the 2003 and on 9 days in 2004.

Overall residency composition between guided and unguided visitors was fairly consistent between census years, with the major demographic in both groups consisting of U.S. residents from the lower 48 states. In total more than 70% of all guided visitors and approximately 40% of unguided visitors claimed domestic residence outside of Alaska (Table 3). During both years less than 10% of guided visitors were Alaskan residents. Roughly 35-40% of unguided visitors resided in Alaska, one-half or more of whom were Kodiak Island Borough residents. Non-resident aliens averaged 41% of unguided visitors on a daily basis during 2003 but only 25% in 2004. Likewise, non-resident aliens comprised 27% of all unguided visitors in 2003 and less just 11% the following year. During both years approximately 14% of guided visitors were nonresident aliens.

Visitor group size and trip duration (length of stay) varied considerably within each census period, but was fairly consistent between years.

Group size averaged four persons both years (Table 4). In 2003 the most prevalent group size had two visitors (18 total groups) and ranged from one and 11 visitors (Figure 5). In 2004 the most prevalent group size had three visitors. Both census years a majority of groups were equal in size or smaller than the four-person average.

The average visitor trip in 2003 lasted 5 days and ranged from 1 to 26 days (Table 4, Figure 5). In 2004 visitor length of stay averaged 6 days and ranged between 1 and 16 days. Both years the length of stay for most visiting groups was equal to or less than the average.

LOCATION OF USE

Within the distance of approximately 9 river miles encompassed by the Chinook salmon sport fishery, boundaries of 11 United States Geological Survey (USGS) 1-square mile map sections intersect the river channel forming a continuous chain of grid squares from Red River confluence to Ayakulik Lagoon. During the verbal interviews visitors identified on a map which USGS section(s) they camped within during their stay and for how long.

Results from the interviews illustrating this aspect of visitor behavior are portrayed spatially in Figure 6. The three most frequently occupied sections (#5, #17 and #28) were the same during both years of the study, each having at least one visitor camp for 30 days or more of the 37-day study periods. However, two of these, Sections #5 and #28, each contain a fishing lodge which operated during the census and accounted for most visitors. All uplands adjacent to the river in Section #28 are currently under private ownership and visitors exiting the river from this location are allowed a maximum 24-hour stay at an established public easement site.

Section #17, had the greatest total number of visitor camps both years; 37 camps in 2003 and 24 camps in 2004. Both years the maximum number of visitors who camped in this section on any one day was 21 visitors. An average of 10 visitors per day camped in Section #17 in 2004 and seven visitors per day camped there in 2003.

Two other relatively popular visitor camping sites were Sections #19 and #24. Each had one or more visitor camps on most days; however, both had fewer visitor camps and visitors in 2004 than 2003. The peak single day in Section #19 was 29 camping visitors in 2003 and 23 visiting campers in 2004. The average daily number of visitors who camped in 2003 was 9 persons in 2003 and 12 persons in 2004. Section #24 had an average of 6 visitors camp there per day in 2003 with a peak daily total of 14 visitors. In 2004 an average of 7 visitors camped in Section #24 per day with a maximum daily number of 13 visitors.

Areas with relatively little camping activity during both census years included Sections #6 and #25 (Figure 6); both had four or less visitors during the peak day of camping use in 2003, and one of which had no visitor camps at all during 2004.

SPORT FISHING EFFORT AND CATCH

Sport fishing effort by the 340 anglers who visited Ayakulik River during the 2003 census period primarily targeted Chinook salmon (Table 5). A smaller number of anglers targeted sockeye salmon, and during early June a few others also targeted steelhead. The 2003 Ayakulik River Chinook salmon escapement was the third largest during the most recent 10-year period, totaling 17,557 fish (Spalinger et al. 2005). Of these, anglers reported a total catch of 4,746 Chinook salmon and harvest of 434 Chinook salmon (Table 5). On a daily basis, an average of 132 Chinook salmon were caught, of which 15 were harvested. During their trip anglers individually caught an average of approximately 15 Chinook salmon and harvested just one.

Catches of other sport fish reported during the 2003 census included: 4,094 sockeye salmon (807 were harvested), 360 steelhead, and 306 Dolly Varden.

In 2004, 272 anglers interviewed during the census reported a catch of 7,450 Chinook salmon (Table 5) from an all time record inriver return of 24,830 fish (Spalinger et al. 2005). Only 401 fish from the total catch were harvested.

Additional catches during the census period included 3,897 sockeye salmon, 411 steelhead, and 90 Dolly Varden; however, of these only 676 sockeye salmon and one steelhead were harvested.

EVALUATION OF VOLUNTARY CAMPING CLOSURES

Results from daily surveys conducted by agency personnel at three upriver voluntary camp closure zones plus observations made by respondents to the census questionnaire during their trip indicated that overall visitor compliance was high both years. Non-compliance was documented by agency personnel on one occasion in 2003, when a single camp occupied by one visitor was observed within the boundaries of the Bare Creek closure zone for several days during the first week of June (Table 6). During 2004 there were no camps observed within any of the three closure zones surveyed. Only 12% (31 total) of 257 questionnaire respondents in 2003 reported seeing other visitors camped within the closure zones on at least one occasion; during 2004 this number dropped to just 8% of all questionnaire respondents (Table 6). Visitors who indicated they avoided fishing within occupied closure areas comprised 27% of a total 128 respondents to this question in 2003, while only 14% of 160 respondents reported not fishing a closure area due to the presence of visitor camps.

VISITOR SATISFACTION LEVELS, PREFERENCES, AND OPINIONS

A similar proportion of visitation during both years of the study period was comprised of persons who had been to Ayakulik River on at least one prior occasion. Approximately 45% of 235 respondents in 2003 and 43% of 240 respondents during 2004 had visited the river previously (Table 7). When asked for their opinion on historic visitation levels, nearly 45% of 112 respondents in 2003 felt visitation was higher than during their most recent previous visit. However, the following year the number of return visitors sharing this opinion dropped to less than 20% of 118 total respondents.

While only 25% of 2003 questionnaire respondents believed visitation levels were lower than past years, in 2004 the proportion of respondents sharing this opinion increased to 31%. Both years between 10 and 15% of questionnaire respondents indicated that they knew persons who used to, but no longer visit Ayakulik River.

Littering was not perceived as a significant problem by most visitors; 92% of 260 total respondents in 2003 expressed this opinion and 97% of 239 respondents in 2004 agreed that litter was not a significant problem (Table 7). Similarly, when asked to identify the number of locations litter was observed during their trip, nearly 70% of all respondents indicated they did not observe litter. Of the remaining respondents, most indicated that they observed litter at four or less different locations.

Visitor experience priorities and visitor satisfaction levels varied amongst questionnaire respondents. The following pre-listed items consistently ranked as “very important” aspects of visitor experience by a substantial majority of respondents during both census periods (Table 8):

1. Not having to compete for a fishing spot (67% in 2003; 79% in 2004),
2. Viewing wildlife (67% in 2003; 71% in 2004),
3. Peace and quiet (67% in 2003; 75% in 2004).

Similarly, these items were identified as “somewhat important” by more than 92% of all respondents. ‘Catching lots of fish’ ranked lower amongst the “very important” choices but

highest of all as being “somewhat important” (Table 8). Relatively few respondents considered any visitor experience priorities listed in the questionnaire as “not important.” Visitor ‘solitude’ was the highest ranked item (26% in 2003; 21% in 2004) in this category, but was still ranked as at least “somewhat important” by nearly one-half of all respondents in both years.

Overall visitor satisfaction levels were very high both years, with 97% or more of respondents selecting the questionnaire categories “agree” or “strongly agree” to indicate whether they would like to visit Ayakulik River again (Table 8). Additionally, at least 95% selected “I would like to have another experience like the one I just had.” Overall, a substantial majority of respondents both years reacted positively to each of the six measures of visitor satisfaction listed in the questionnaires. In 2003 more than 85% concurred that they were able to fish where they wanted and 98% shared this sentiment in 2004. More than 80% of 2003 census respondents indicated that they caught as many fish as expected, compared to 95% the following year. A large majority of respondents (75% in 2003; 88% in 2004) did not feel the number of other people encountered during their trip had negatively impacted their visit.

To differentiate amongst users, visitor responses to questions soliciting their opinions and preferences about potential future public use management options were summarized for all questionnaire participants, for all guided and unguided visitors, and by visitor residency (Tables 9-15).

In 2003 a majority of respondents (66%) indicated that the status quo of no camping restrictions would reduce visitor enjoyment more than any other management option (Table 9). Accordingly, a substantial majority (66%) also opposed or strongly opposed no camping restrictions for future management of public use. Conversely, continuation of the voluntary camping closures was the option supported by the majority (66%) of respondents and also viewed as most favorable for increasing visitor enjoyment. Two other potential management tools, limits on group size and limiting the daily number of visitors, were also viewed by a majority of respondents as beneficial for increasing visitor enjoyment. Fifty percent or more of respondents supported future implementation of all management options except the status quo. Respondents who indicated that none of the six options (including the status quo) would influence visitor enjoyment comprised 25-30% of the total, while a slightly higher percentage remained neutral on implementation of these measures.

The 2004 census participants were not asked to rank the perceived impact of future management options due to comments from a number of respondents from 2003 that this question was redundant. However, the 2004 visitors were still asked whether they supported or opposed future implementation of the same suite of management options. Responses were generally similar to those from the 2003 census, with most visitors favoring continuation of the voluntary camping closures and opposing a future return to no camping restrictions (Table 9). One notable change between years was a measurable decrease in the number of visitors who strongly supported future limitations on group size (32% in 2003 vs. 22% in 2004), limiting visitor length of stay (27% in 2003 vs. 18% in 2004), and limits on daily numbers of visitors allowed on the river (29% in 2003 vs. 15% in 2004). Similarly, the percentage of respondents who opposed implementation of these three measures nearly doubled in 2004.

During both census years the opinions and preferences on management options expressed by guided visitors were somewhat different to those for all questionnaire respondents, but similar in regard to the former status quo of no camping restrictions ranking as the option that most

opposed for implementation and considered as reducing visitor enjoyment. Contrary to overall results indicating that continuation of the voluntary camping closures was the management option most favorable for increasing visitor enjoyment, in 2003 more guided respondents generally felt that limiting daily numbers of visitors (71%), limiting visitor group size (63%) and length of stay (57%), and mandatory camping closures (51%) would have a more beneficial effect (Table 10). Guided visitor respondents from the 2003 census also supported future implementation of these measures by similar proportions, although in 2004 fewer respondents indicated they strongly supported implementation of these measures.

Responses from unguided visitors in 2003 matched those of guided visitors within 10 percentage points for each of the six potential management options except limiting the daily number of visitors on the river (54% of unguided visitors vs. 71% of those with guides). A majority indicated the status quo of no camping restrictions reduced visitor enjoyment and 65% opposed implementation of this option. Both years more than 70% of unguided respondents identified continuation of the voluntary camping closures as the preferred future management option (Table 11). All other management options were supported by less than 50% of unguided respondents and, similar to the change in overall visitor response, in 2004 higher numbers of unguided visitors opposed implementation of limiting group size, length of stay or overall visitor numbers. Also similar to the overall group response, approximately 25-30% of unguided respondents were neutral on implementing any one of the six future management options.

Views on future management options expressed by residency groups during both census years very nearly matched those summarized for all questionnaire respondents. Most Kodiak Island Borough residents (78% in 2003, 81% in 2004) supported future continuation of the voluntary camping closures, with similar majorities indicating that not only would this measure increase visitor enjoyment, but also that the status quo of no camping restrictions would have the opposite effect (Table 12). Accordingly, 70% or more opposed returning to the former status quo.

Other Alaska residents favored continued voluntary camping closures (55%) and opposed no camping restrictions (57%) by slightly smaller majorities than Kodiak Island Borough residents in 2003 but generally in the same proportions during 2004. A similar number of respondents (51%) within this residency group also indicated that limits on visitor group size would increase visitor enjoyment and an equal percentage supported future implementation of limits on visitor length of stay (Table 13). In 2003, a greater proportion (36%) opposed implementation of mandatory camping closures than respondents representing any other subgroup, although during 2004 the percentage number of respondents with this sentiment dropped substantially.

During both census years a majority of U.S. residents from the lower 48 states (63% in 2003, 77% in 2004) supported a continuation of the voluntary camping closures, even though in 2003 limits on the daily number of visitors ranked as the next most popular potential future management option, while respondents in 2004 identified limits on groups size as the second preferred option. (Table 14). In addition, during 2003 and 2004 approximately 50% of respondents from this group also supported future implementation of mandatory camping closures. Like Kodiak Island Borough and other Alaskan residents, in 2003 a high proportion of these respondents also felt that no camping restrictions would reduce visitor enjoyment over any of the other options and 61% opposed implementation of this option.

During both census years the largest proportion of nonresident alien visitors (72%) also supported continuation of the voluntary camping closures, although more than 50% also favored

mandatory camping closures (Table 15). In 2003 a total of 55% favored limiting the daily number of users on the river and nearly 80% felt this measure would enhance visitor experience. During 2004 only 40% of respondents supported implementation of this option. Similar to the other subgroups, a return to no camping restrictions was the management option most nonresident alien visitor respondents opposed and felt would reduce visitor enjoyment.

In addition to indicating their preferences and opinions on future implementation of one or more management options, all questionnaire respondents were asked to provide further input on two options, limiting visitor group size and visitor length of stay, by specifying a preferred maximum value for each. (Participants opposed to implementation of either option were also asked to indicate this preference.) Suggestions for maximum visitor group size were received from 249 respondents in 2003 and 230 in 2004 (Table 16). Preferred values ranged from two to 20 persons. The largest single proportion of respondents (30% in 2003, 38% in 2004) favored a maximum group size of six persons, with the next two most popular values during both years at four persons and 8 persons. However, similar numbers (~19%) indicated they did not support limits on group size. Of all respondents who provided a preferred value for maximum visitor length of stay, the single largest proportion (19% in 2003, 38% in 2004) favored 7 days. Again though, a relatively large proportion of respondents (18-21%) indicated they did not support placing limits on visitor trip length.

Additional visitor preferences and opinions, expressed as written comments on the questionnaire forms, included a wide variety of ideas, suggestions, compliments, and criticisms. Comments directly relating to management of the Chinook salmon sport fishery mostly consisted of suggestions for preferred fishing methods, such as establishment of fly-fishing-only waters and prohibiting the use of bait. A few visitors suggested the latter restriction would also eliminate the incentive for on-grounds roe stripping, a practice which they reported having observed during the 2003 season. Several visitor comments addressing the use of powered boats as a means of on-site access to the sport fishery included preferences both in favor of and in opposition to this practice. A few others proposed removal of the signs used to delineate boundaries of the voluntary campground closure zones, as well as removing the closures in view of the perception that overcrowding was not at issue during the fishery. Many comments reiterated or expanded on views previously expressed by individual visitors in their responses to specific topics addressed in the questionnaire, while other comments reflected personal values in regard to expectations of visitor experience. All comments provided by individual visitors are reprinted in Appendices D1 and D2.

DISCUSSION

The 2003 and 2004 censuses were an overall success. During the study period, all Ayakulik River visitors were contacted and nearly all agreed to participate. All of the specified study objectives were achieved. Visitor attributes and sport fishing effort were well documented, visitor satisfaction levels measured, and their preferences and opinions quantified. The census results indicated that operational planning by the agencies was effective, and the strategic deployment of agency staff at the KNWR Bare Creek camp and ADF&G weir was sufficient for conducting visitor interviews and administering questionnaires. The logistical success of the census was aided by the cooperation and assistance of the guided sport fishing service providers in making their clients accessible to the interviewers.

Several problems occurred conducting the census. (1) census takers failed to administer questionnaires to a small number of participants, (2) they also did not obtain responses from several who completed questionnaires after exiting the river, (3) five completed questionnaires were misplaced in 2003, and (4) a number of incomplete questionnaire responses were not discovered by field personnel until after the interview. Staff who administered the questionnaires attributed the relatively small percentage of non-responses to poor formatting of the questionnaire document (i.e., unclear or confusing) and a language barrier for some nonresident alien visitors. They did not observe any deliberate attempts by participants to avoid answering questions. This non-response problem was more prevalent when multiple visitor groups arrived at their exit location simultaneously. Pressed for time in these situations, interviewers weren't always able to check questionnaires for completeness prior to multiple group departures.

Summary analysis of census results indicated that overall visitor satisfaction during both years was very high. The perceptions of congestion and overcrowding were a minority view by census participants. In 2004, a lower proportion of respondents favored future implementation of more restrictive management options (i.e., limiting the total daily number of visitors allowed on the river, etc.) designed to address congestion and overcrowding. During both study years the most important factors to visitors were: peace and quiet, not having to compete for a fishing spot, and viewing wildlife. Many visitors supported a number of different management options, but most felt that continuation of the voluntary camping closures would increase visitor enjoyment and, accordingly, a majority supported implementation of this measure. Likewise, the least preferred management option was a return to no camping restrictions. Preferences and opinions generally varied little by residency or guide status. Guided visitors were the only subgroup to consistently show majority support for limiting the daily number of visitors on the river, although a majority of nonresident aliens in 2003 also felt this option would increase visitor enjoyment. During both years, suggestions for maximum group size and length of stay limits varied widely. However, a six person group size and a 7-day stay were recommended most frequently both years.

Summarized statistics from 1998-2002 air transporter and guide service reports to KNWR, previous KNWR Ayakulik River visitor use assessment studies, and annual ADF&G sport fishery creel surveys indicate that historical annual visitation to Ayakulik River has been variable. Similarly, visitor demographics and ratios of unguided to guided visitors appear to be dynamic as well (Appendices E1 and F1). Two factors which may contribute to fluctuations in visitor levels between years are the variations in the annual abundance of Chinook salmon in the sport fishery and the pre-season perceptions (based on personal experiences and reports from other visitors during the preceding season) of the potential for visitor crowding and congestion. Some factors that may have affected visitation in 2003 and 2004 include the following:

1. Recent changes in Karluk River uplands land status – A conservation easement agreement implemented in 2003 prescribes limited daily visitor numbers during the peak of the Karluk River Chinook salmon fishery (previously there were no numerical restrictions on visitor use). Some visitors initially considering a trip to Karluk River but unfamiliar with the new policy on public access may have subsequently opted for Ayakulik River, where there are currently no restrictions on the daily number of visitors.
2. Recent trends in abundance of Karluk River Chinook salmon – Since 2001, inriver returns of Karluk River Chinook salmon have been relatively low, to the extent that inseason restrictions to the sport fishery (including complete closure) were implemented

in 2001 and again in 2003 (Len Schwarz, ADF&G, Kodiak, personal communication). Anecdotal evidence suggests that the 2003 inseason management actions resulted in some visitors making previously unplanned trips to Ayakulik River, which may account for the higher number of single day visitor trips that year. Additionally, an overall perception of poor fishing at Karluk River resulting from recent years with low returns may have prompted more anglers to visit Ayakulik River.

3. Impacts of external factors on Alaska tourism – The recent economic downturn in the U.S. and other countries as well as events following the September 11, 2001 terrorist attacks may have negatively impacted Ayakulik River visitation during 2003. Statistics maintained by Kodiak Visitor and Convention Bureau indicate visitor arrivals to Kodiak Island during June decreased between 2002 and 2003, and both years were well below pre-September 2001 levels. (P. Forman, Kodiak Visitor and Convention Bureau, Kodiak, *personal communication*). Additionally, the Alaska Department of Commerce, Community and Economic Development, Office of Tourism³, reported that visitor arrivals to major airports in Alaska during June 2003 were down approximately 5% from 2002 levels. Statistics from the U.S. Government Office of Travel and Tourism Industries⁴ show that between 2002 and 2003 visitor arrivals to the U.S. from Western Europe declined during June by more than 12%.

Considering these factors and the dynamic nature of the Chinook salmon fishery, we expect future visitation to Ayakulik River may differ from 2003 and 2004. Future shifts in visitor numbers or characteristics may produce changes in visitor behaviors, which may influence overall visitor satisfaction levels and preferences. Had higher visitor densities during the 2003 and 2004 study resulted in lower compliance with the voluntary camping closures, a consistent majority of visitors may not have viewed this measure as a preferred future management option. Although increased visitor numbers may diminish the overall visitor experience (i.e., peace and quiet, and competition for fishing locations) for some, others may be sustained regardless of visitation levels. Continued assessment of visitor use over several years may help determine which factors are more closely related to changes in visitation levels, which in turn will aid stakeholders and policy makers in development of a long-term plan for public use management.

ACKNOWLEDGMENTS

The authors would like to thank ADF&G census crew members Matt Nagler, Julie Mitchell, Chris Bonds, Nathan Olsen, Nathan Marianski and Jeff Shryer for collecting the field data. Ayakulik River sport fishing guides Davy Jones, Dennis Harms, Mike Carlson, Sam Fejes, and others, provided invaluable assistance in facilitating data collections from their clients. Thanks to Biometrician Allen Bingham for assisting us with the study design and to Project Biometrician Randall Mullen for data analysis and biometric review of this study. Special thanks to Kodiak Area Management Biologist Len Schwarz, Leslie Kerr, Beth Pattinson, and Greg Wilker for contributing to all stages of this project.

³ Alaska Department of Commerce, Community and Economic Development, Office of Tourism data, website <http://www.dced.state.ak.us> (Accessed Month Year)

⁴ U. S. Department of Commerce, Office of Travel and Tourism Industries, International Trade Administration data, website <http://tinet.ita.doc.gov> (Accessed Month Year).

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TABLES

Table 1.-Total number of visitors, groups, visitor days, plus exit locations, and overall visitor attributes for Ayakulik River, June 1 through July 7, 2003 and 2004.

	Total		
	No. of visitors	No. of groups	Visitor days ^a
2003	341	84	1,705
2004	272	66	1,372
(+) % change	-20%	-21%	-20%

	Visitor exit locations		
	Bare Creek	Lagoon	Other
2003	148	188	5
2004	102	170	0
(+) % change	-31%	-10%	-

	Visitor status		
	Angler	Subsistence	Other
2003	340	1	0
2004	272	0	0
(±) % change	0%	-	-

	Angler status			
	Guided	Unguided ^b	Fishing Club	Unknown
2003	144	196	21	1
2004	114	158	11	0
(±) % change	0%	0%	-2%	-

	Visitor residency				
	Kodiak	Other Alaska	Other U.S.	Non-resident alien	Unknown
2003	40	39	190	72	0
2004	46	34	150	31	11
(±) % change	5%	1%	-1%	0%	-

Note: units for all 2003 and 2004 visitor exit locations, visitor status, angler status, and visitor residency data = number of visitors.

^a Visitor days defined as the sum of individual visitor trips (length of stay), including the day visitors were interviewed.

^b Includes visitors identifying themselves as members of a fishing club.

Table 2.-Minimum, maximum, and average daily values for visitor attributes, group size, and length of stay at Ayakulik River, June 1 through July 7, 2003 and 2004.

	Minimum						Maximum				Average	
	2003			2004			2003		2004		(no. of visitors)	
	No. of visitors	Date(s)	No. of days	No. of visitors	Date(s)	No. of days	No. of visitors	Date(s)	No. of visitors	Date(s)	2003	2004
Total Visitors:	15	(Jul 5)		7	(Jul 7)		85	(Jun 18)	79	(Jun 15)	43	36
<u>Angler Status:</u>												
Guided	7	(Jun 14)		2	(Jun 1-2)		27	(Jul 2)	26	(Jun 29, Jul 1)	15	12
Unguided ^a	4	(Jul 8)		0	(Jul 6-7)		69	(Jun 18)	69	(Jun 15)	29	25
Fishing Club	0		23	0		15	21	(Jun 17-23)		(Jun 14-21)	6	4
<u>Residency:</u>												
Kodiak	0	(Jul 4-5)		0		10	14	(Jun 19)	18	(Jun 13)	6	5
Other AK	0	(Jul 1-2)		0		8	11	(Jun 13)	13	(Jun 21)	5	5
Other U.S.	11	(Jul 5)		3	(June 9)		28	(Jun 18)	39	(Jun 15)	19	18
Non-resident alien	0		6	0		10	37	(Jun 17-20)	17	(June 15)	14	8

^a Includes visitors who identified themselves as members of a fishing club.

Table 3.-Residency composition of guided and unguided visitors to Ayakulik River, June 1 through July 7, 2003 and 2004.

	Total				Daily Average			
	2003		2004		2003		2004	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
<u>Guided Visitors^a:</u>								
Kodiak resident	5	3%	4	4%	1	5%	<1	4%
Other AK resident	5	3%	13	12%	<1	3%	1	9%
Other U.S. resident	114	79%	82	73%	12	78%	8	73%
Non-resident alien	20	14%	13	12%	2	14%	1	14%
<u>Unguided Visitors^b:</u>								
Kodiak resident	33	17%	42	26%	5	17%	4	20%
Other AK resident	34	17%	21	13%	7	24%	3	15%
Other U.S. resident	76	38%	68	43%	4	14%	8	40%
Non-resident alien	52	27%	17	11%	12	41%	5	25%

^a Does not include 1 guided visitor in 2003 of unknown residency.

^b Does not include 11 unguided visitors in 2004 of unknown residency.

Table 4.-Minimum, maximum, mode, and average visitor group size and length of stay at Ayakulik River, June 1 through July 7, 2003 and 2004.

	Visitor group size		Visitor length of stay ^a	
	2003	2004	2003	2004
Minimum	1 (6 groups)	1 (2 groups)	1 (24 groups)	1 (9 groups)
Maximum	11 (2 groups)	17 (1 group)	26 (1 group)	16 (1 group)
Mode ^b	2 (18 groups)	3 (19 groups)	1 (24 groups)	5 (17 groups)
Average	4 (13 groups)	4 (7 groups)	5 (11 groups)	6 (7 groups)
% < Average ^c	63% (53 groups)	76% (50 groups)	54% (45 groups)	76% (50 groups)
% > Average ^d	37% (31 groups)	24% (16 groups)	46% (39 groups)	24% (16 groups)

^a Total days.

^b Defined as the value occurring most frequently within the total range of values.

^c Percent of total values less than the average value.

^d Percent of total values greater than the average value.

Table 5.-Ayakulik River sport fish effort, catch and harvest, June 1 through July 7, 2003 and 2004.

Species	Year	Anglers	Catch	Release	Harvest	Average harvest	
						per day	per angler
Chinook salmon	2003	340	4,746	4,312	434	15	1.3
	2004	272	7,450	7,049	401	15	1.5
Sockeye salmon	2003	340	4,094	3287	807	-	-
	2004	272	3,897	3221	676	-	-
Steelhead	2003	340	360	360	0	-	-
	2004	272	411	410	1	-	-
Dolly Varden	2003	340	306	296	10	-	-
	2004	272	90	90	0	-	-

Note: "harvest" = fish kept; "catch" = fish harvested plus fish released; "-" = value can't be computed due to limitations of the data.

Table 6.-Effectiveness of voluntary camping closures at Ayakulik River, June 1 through July 7, 2003 and 2004.

Percentage of visitors who reported seeing others camped inside the voluntary camping closure zones:

2003	2004
12% (31 of 260 respondents)	8% (21 of 263 respondents)

Percentage of visitors who avoided fishing at holes within voluntary camping closure zones due to the presence of other visitor camps:

<u>2003</u>	<u>2004</u>
27% (34 of 128 respondents)	14% (22 of 160 respondents)

Number of individual visitor camps observed in the Bare Creek, Red River, and Guide Hole voluntary camping closure zones during daily monitoring by agency personnel between June 1 and July 7:

<u>2003</u>	<u>2004</u>
<u>Bare Creek</u> - 1 (4 days)	<u>Bare Creek</u> - 0
Red River - 0	Red River - 0
Guide Hole - 0	Guide Hole - 0

Table 7.-Observations and opinions on past and present visitation levels and visitor tendencies expressed by visitors at Ayakulik River, June 1 through July 7, 2003 and 2004.

Percent of visitors who have visited Ayakulik River on at least one prior occasion:

<u>2003</u>	<u>2004</u>
45% (235 respondents)	43% (240 respondents)

Percent of visitors who feel there were more, less, or about the same number of other visitors on Ayakulik River during their 2003 trip as during their most recent previous trip:

<u>2003</u> (112 respondents)	<u>2004</u> (118 respondents)
more - 44% about the same - 28%	more - 19% about the same - 40%
less - 25% don't recall - 4%	less - 31% don't recall - 8%

Percent of visitors who know others that no longer visit Ayakulik River:

<u>2003</u>	<u>2004</u>
14% (243 respondents)	11% (238 respondents)

Total number of persons that no longer visit Ayakulik River known by current visitors:

<u>2003</u>	<u>2004</u>
145	111

Percent of 2003 visitors who feel littering is a significant problem on Ayakulik River:

<u>2003</u>	<u>2004</u>
significant - 8%	significant - 3%
not significant - 92%	not significant - 97%
(260 respondents)	(239 respondents)

Percent of visitors who observed litter along Ayakulik River during their 2003 trip :

<u>2003</u>	<u>2004</u>
did not observe litter - 69%	did not observe litter - 67%
observed litter 1-4 locations - 28%	observed litter 1-4 locations - 30%
observed litter 5-12 locations - 3%	observed litter 5-12 locations - 2%
observed litter more than 12 locations - <1%	observed litter more than 12 locations - 1%
(263 respondents)	(239 respondents)

Table 8.-Visitor experience priorities and visitor satisfaction survey results, Ayakulik River, June 1 through July 7, 2003 and 2004.

	Percent of total response								Number of other categories				
	Not important		Somewhat important		Very important		Total response		Not applicable		Did not respond		
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	
Visitor experience priorities:													
Catching lots of fish	6%	3%	52%	35%	42%	61%	100%	99%	1	0	2	6	
Not having to compete for a fishing spot	8%	3%	25%	18%	67%	79%	100%	100%	2	0	2	6	
Viewing wildlife	5%	3%	28%	25%	67%	71%	100%	99%	3	1	4	6	
Solitude (not seeing others)	26%	21%	46%	47%	28%	31%	100%	99%	6	3	5	6	
Comfortable/Convenient camping site	15%	14%	38%	48%	47%	38%	100%	100%	36	17	5	8	
Peace and quiet	3%	3%	30%	21%	67%	75%	100%	99%	3	1	2	7	

	Percent of total response								Number of other categories					
	Strongly disagree		Disagree		Agree		Strongly agree		Total response		Not applicable		Did not respond	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
Visitor satisfaction:														
Would like to visit Ayakulik River again	0%	1%	1%	2%	28%	16%	71%	81%	100%	100%	0	0	5	6
Would like to have another experience like the one I just had	1%	2%	4%	2%	29%	17%	66%	79%	100%	100%	0	0	6	5
Was able to fish were I wanted	2%	1%	11%	1%	35%	35%	52%	63%	100%	100%	3	1	4	5
Caught about as many fish as I expected	5%	3%	13%	11%	44%	27%	38%	58%	100%	99%	2	0	5	5
No problem to find a satisfactory campsite	2%	<1%	6%	3%	45%	44%	48%	53%	100%	100%	86	86	9	7
Number of other people I encountered did not negatively impact my visit	9%	2%	17%	5%	37%	43%	37%	50%	100%	100%	9	14	5	8

Table 9.-Visitor opinions and preferences regarding potential future public use management options for Ayakulik River,

Effect of Potential Future Management Options on Visitor Enjoyment (asked during 2003 only):

	Survey response										Total response		Did not respond (no. of visitors)
	Greatly reduce enjoyment		Moderately reduce enjoyment		No influence on enjoyment		Moderately increase enjoyment		Greatly increase enjoyment				
	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	
Continued voluntary camping closures	11	4%	20	8%	79	31%	61	24%	86	33%	257	100%	8
Mandatory camping closures	22	9%	19	7%	94	37%	52	20%	67	26%	254	100%	11
No camping restrictions	112	44%	31	12%	61	24%	31	12%	18	7%	253	100%	12
Limits on visitor group size	31	12%	27	11%	68	27%	53	21%	77	30%	256	100%	9
Limits on visitor length of stay	33	13%	24	9%	81	32%	52	21%	63	25%	253	100%	12
Limits on daily number of visitors on the river	29	11%	23	9%	57	22%	67	26%	81	32%	257	100%	8

Visitor Preferences on Implementation of Potential Future Management Options:

	Percent of total response										Total response		Did not respond (no. of visitors)	
	Strongly oppose		Oppose		Neutral		Support		Strongly support					
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
Continued voluntary camping closures	5%	1%	4%	3%	25%	17%	30%	31%	36%	48%	100%	100%	11	6
Mandatory camping closures	7%	8%	14%	16%	32%	31%	23%	25%	25%	22%	100%	102%	12	10
No camping restrictions	42%	43%	24%	26%	26%	25%	6%	4%	3%	3%	100%	101%	12	8
Limits on visitor group size	7%	11%	8%	14%	30%	28%	23%	25%	32%	22%	100%	100%	11	6
Limits on visitor length of stay	13%	15%	7%	14%	30%	28%	23%	24%	27%	18%	100%	99%	12	5
Limits on daily number of visitors on the river	10%	16%	8%	15%	27%	32%	25%	22%	29%	15%	100%	100%	15	5

Note: Results tabulated from visitor census conducted at Ayakulik River, June 1 through July 2, 2003 and 2004.

Table 10.-Guided visitor opinions and preferences regarding potential future public use management options for Ayakulik River.

Effect of Potential Future Management Options on Visitor Enjoyment (asked during 2003 only):													
	Survey response										Total response		Did not respond (no. of visitors)
	Greatly reduce enjoyment		Moderately reduce enjoyment		No influence on enjoyment		Moderately increase enjoyment		Greatly increase enjoyment				
	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	
Continued voluntary camping closures	6	6%	12	12%	37	36%	22	22%	25	25%	102	100%	5
Mandatory camping closures	4	4%	6	6%	30	29%	25	24%	38	37%	103	100%	4
No camping restrictions	51	50%	15	15%	22	22%	10	10%	3	3%	101	100%	6
Limits on visitor group size	5	5%	7	7%	26	26%	23	23%	40	40%	101	100%	6
Limits on visitor length of stay	4	4%	6	6%	34	34%	23	23%	34	34%	101	100%	6
Limits on daily number of visitors on the river	5	5%	7	7%	19	19%	24	24%	47	46%	102	100%	5

Visitor Preferences on Implementation of Potential Future Management Options:															
	Percent of total response										Total response		Did not respond (no. of visitors)		
	Strongly oppose		Oppose		Neutral		Support		Strongly support						
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	
Continued voluntary camping closures	2%	1%	6%	5%	31%	19%	33%	27%	27%	48%	100%	100%	8	2	
Mandatory camping closures	2%	2%	6%	5%	29%	27%	31%	32%	31%	35%	100%	101%	5	1	
No camping restrictions	50%	48%	16%	22%	27%	26%	6%	1%	2%	3%	100%	100%	6	2	
Limits on visitor group size	2%	2%	2%	4%	31%	27%	26%	32%	38%	35%	100%	100%	5	2	
Limits on visitor length of stay	3%	6%	3%	7%	33%	28%	21%	34%	41%	26%	100%	101%	6	1	
Limits on daily number of visitors on the river	1%	3%	4%	7%	25%	26%	25%	35%	46%	30%	100%	101%	5	1	

Note: Results tabulated from visitor census conducted at Ayakulik River, June 1 through July 2, 2003 and 2004.

Table 11.-Unguided visitor opinions and preferences regarding potential future public use management options for Ayakulik River.

Effect of Potential Future Management Options on Visitor Enjoyment (asked during 2003 only):													
	Survey response										Total response	Did not respond (no. of visitors)	
	Greatly reduce enjoyment		Moderately reduce enjoyment		No influence on enjoyment		Moderately increase enjoyment		Greatly increase enjoyment				
	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total			
Continued voluntary camping closures	5	3%	8	5%	42	27%	39	25%	61	39%	155	100%	3
Mandatory camping closures	18	12%	13	9%	64	42%	27	18%	29	19%	151	100%	7
No camping restrictions	61	40%	16	11%	39	26%	21	14%	15	10%	152	100%	6
Limits on visitor group size	26	17%	20	13%	42	27%	30	19%	37	24%	155	100%	3
Limits on visitor length of stay	29	19%	18	12%	47	31%	29	19%	29	19%	152	100%	6
Limits on daily number of visitors on the river	24	15%	16	10%	38	25%	43	28%	34	22%	155	100%	3

Visitor Preferences on Implementation of Potential Future Management Options:														
	Percent of total response										Total response		Did not respond (no. of visitors)	
	Strongly oppose		Oppose		Neutral		Support		Strongly support					
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
Continued voluntary camping closures	6%	1%	3%	1%	21%	15%	28%	34%	42%	48%	100%	99%	3	3
Mandatory camping closures	11%	12%	19%	24%	33%	34%	17%	19%	20%	11%	100%	100%	7	8
No camping restrictions	36%	39%	29%	28%	25%	25%	6%	6%	4%	2%	100%	100%	6	5
Limits on visitor group size	11%	18%	13%	22%	29%	28%	20%	20%	28%	12%	100%	100%	6	3
Limits on visitor length of stay	19%	22%	10%	20%	29%	28%	24%	17%	18%	13%	100%	100%	6	3
Limits on daily number of visitors on the river	16%	26%	11%	21%	29%	36%	26%	13%	18%	4%	100%	100%	10	3

Note: Results tabulated from visitor census conducted at Ayakulik River, June 1 through July 2, 2003 and 2004.

Table 12.-Kodiak Island Borough visitor opinions and preferences regarding potential future public use management options for Ayakulik River.

Effect of Potential Future Management Options on Visitor Enjoyment (asked during 2003 only):													
	Survey response										Total response		Did not respond (no. of visitors)
	Greatly reduce enjoyment		Moderately reduce enjoyment		No influence on enjoyment		Moderately increase enjoyment		Greatly increase enjoyment				
	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	
Continued voluntary camping closures	2	7%	1	4%	8	30%	6	22%	10	37%	27	100%	0
Mandatory camping closures	3	11%	3	11%	10	37%	7	26%	4	15%	27	100%	0
No camping restrictions	13	48%	3	11%	7	26%	4	15%	0	0%	27	100%	0
Limits on visitor group size	3	11%	3	11%	7	26%	5	19%	9	33%	27	100%	0
Limits on visitor length of stay	5	19%	3	12%	5	19%	6	23%	7	27%	26	100%	1
Limits on daily number of visitors on the river	3	11%	2	7%	8	30%	8	30%	6	22%	27	100%	0

Visitor Preferences on Implementation of Potential Future Management Options:														
	Percent of total response										Total response		Did not respond (no. of visitors)	
	Strongly oppose		Oppose		Neutral		Support		Strongly support					
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
Continued voluntary camping closures	4%	0%	0%	3%	19%	16%	30%	38%	48%	43%	100%	100%	0	0
Mandatory camping closures	7%	16%	19%	24%	37%	32%	22%	16%	15%	11%	100%	99%	0	0
No camping restrictions	37%	44%	33%	28%	22%	17%	4%	8%	4%	3%	100%	100%	0	1
Limits on visitor group size	15%	14%	7%	22%	26%	33%	19%	8%	33%	22%	100%	99%	0	1
Limits on visitor length of stay	22%	14%	7%	21%	19%	30%	26%	14%	26%	21%	100%	100%	0	0
Limits on daily number of visitors on the river	15%	24%	11%	22%	26%	43%	30%	5%	19%	5%	100%	99%	0	0

Note: Results tabulated from visitor census conducted at Ayakulik River, June 1 through July 2, 2003 and 2004. Does not include any Kodiak Island Borough residents amongst 13 questionnaire respondents of unknown residency.

Table 13.-Other Alaskan resident visitor opinions and preferences regarding potential future public use management options for Ayakulik River.

Effect of Potential Future Management Options on Visitor Enjoyment (asked during 2003 only):														
	Survey response										Total response		Did not respond (no. of visitors)	
	Greatly reduce enjoyment		Moderately reduce enjoyment		No influence on enjoyment		Moderately increase enjoyment		Greatly increase enjoyment					
	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total		
Continued voluntary camping closures	4	13%	2	7%	8	27%	9	30%	7	23%	30	100%	2	
Mandatory camping closures	7	23%	2	6%	13	42%	4	13%	5	16%	31	100%	1	
No camping restrictions	8	27%	4	13%	6	20%	7	23%	5	17%	30	100%	2	
Limits on visitor group size	4	13%	3	10%	9	29%	7	23%	8	26%	31	100%	1	
Limits on visitor length of stay	8	27%	2	7%	7	23%	7	23%	6	20%	30	100%	2	
Limits on daily number of visitors on the river	7	23%	1	3%	7	23%	12	39%	4	13%	31	100%	1	

Visitor Preferences on Implementation of Potential Future Management Options:														
	Percent of total response										Total response		Did not respond (no. of visitors)	
	Strongly oppose		Oppose		Neutral		Support		Strongly support					
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004		
Continued voluntary camping closures	21%	5%	3%	3%	21%	11%	24%	24%	31%	57%	100%	100%	3	0
Mandatory camping closures	26%	11%	10%	13%	29%	26%	19%	24%	16%	26%	100%	100%	1	0
No camping restrictions	30%	49%	27%	16%	23%	21%	7%	11%	13%	3%	100%	100%	2	0
Limits on visitor group size	13%	13%	18%	24%	24%	24%	16%	21%	29%	18%	100%	100%	1	0
Limits on visitor length of stay	23%	18%	6%	18%	23%	32%	23%	16%	26%	16%	100%	100%	1	0
Limits on daily number of visitors on the river	20%	23%	7%	21%	23%	24%	37%	24%	13%	8%	100%	100%	2	0

Note: Results tabulated from visitor census conducted at Ayakulik River, June 1 through July 2, 2003 and 2004. Does not include any other Alaska residents amongst 13 questionnaire respondents of unknown residency.

Table 14.-Other U. S. resident visitor opinions and preferences regarding potential future public use management options for Ayakulik River.

Effect of Potential Future Management Options on Visitor Enjoyment (asked during 2003 only):													
	Survey response										Total response		Did not respond (no. of visitors)
	Greatly reduce enjoyment		Moderately reduce enjoyment		No influence on enjoyment		Moderately increase enjoyment		Greatly increase enjoyment				
	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	
Continued voluntary camping closures	4	3%	8	7%	42	34%	32	26%	36	30%	122	100%	2
Mandatory camping closures	3	2%	9	7%	44	35%	28	23%	40	32%	124	100%	2
No camping restrictions	60	49%	21	17%	28	23%	8	7%	5	4%	122	100%	4
Limits on visitor group size	12	10%	12	10%	34	28%	27	22%	37	30%	122	100%	4
Limits on visitor length of stay	11	9%	13	11%	44	36%	20	16%	35	28%	123	100%	3
Limits on daily number of visitors on the river	13	11%	13	11%	28	23%	28	23%	40	33%	122	100%	4

Visitor Preferences on Implementation of Potential Future Management Options:														
	Percent of total response										Total response		Did not respond (no. of visitors)	
	Strongly oppose		Oppose		Neutral		Support		Strongly support					
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
Continued voluntary camping closures	2%	1%	5%	3%	30%	20%	32%	36%	31%	40%	100%	100%	4	4
Mandatory camping closures	2%	2%	16%	16%	31%	33%	22%	24%	30%	25%	100%	100%	4	5
No camping restrictions	44%	35%	25%	31%	26%	29%	4%	2%	1%	3%	100%	100%	4	5
Limits on visitor group size	4%	9%	7%	12%	29%	25%	30%	32%	30%	22%	100%	100%	4	3
Limits on visitor length of stay	8%	9%	5%	13%	34%	30%	25%	31%	28%	17%	100%	100%	5	3
Limits on daily number of visitors on the river	6%	8%	7%	13%	30%	34%	26%	26%	31%	18%	100%	99%	5	3

Note: Results tabulated from visitor census conducted at Ayakulik River, June 1 through July 2, 2003 and 2004. Does not include any other U.S. resident amongst 13 questionnaire respondents of unknown residency.

Table 15.-Nonresident alien visitor opinions and preferences regarding potential future public use management options for Ayakulik River.

Effect of Potential Future Management Options on Visitor Enjoyment (asked during 2003 only):													
	Survey response										Total response		Did not respond (no. of visitors)
	Greatly reduce enjoyment		Moderately reduce enjoyment		No influence on enjoyment		Moderately increase enjoyment		Greatly increase enjoyment				
	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	
Continued voluntary camping closures	2	3%	8	13%	12	19%	11	17%	31	48%	64	100%	3
Mandatory camping closures	9	15%	5	8%	19	31%	10	16%	18	30%	61	100%	6
No camping restrictions	27	44%	2	3%	13	21%	12	19%	8	13%	62	100%	5
Limits on visitor group size	11	17%	6	9%	14	22%	11	17%	22	34%	64	100%	3
Limits on visitor length of stay	9	15%	5	8%	19	31%	16	26%	13	21%	62	100%	5
Limits on daily number of visitors on the river	4	6%	6	9%	11	17%	16	25%	28	43%	65	100%	2

Visitor Preferences on Implementation of Potential Future Management Options:														
	Percent of total response										Total response		Did not respond (no. of visitors)	
	Strongly oppose		Oppose		Neutral		Support		Strongly support					
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
Continued voluntary camping closures	3%	3%	6%	3%	19%	12%	30%	17%	42%	65%	100%	100%	3	0
Mandatory camping closures	10%	14%	11%	10%	27%	25%	26%	30%	26%	21%	100%	100%	5	3
No camping restrictions	48%	55%	13%	14%	26%	23%	10%	6%	3%	2%	100%	100%	5	0
Limits on visitor group size	6%	15%	10%	15%	31%	30%	13%	20%	40%	20%	100%	100%	5	0
Limits on visitor length of stay	13%	29%	11%	14%	32%	24%	18%	15%	26%	18%	100%	100%	5	0
Limits on daily number of visitors on the river	10%	27%	8%	14%	27%	20%	17%	24%	38%	15%	100%	100%	7	0

Note: Results tabulated from visitor census conducted at Ayakulik River, June 1 through July 2, 2003 and 2004. Does not include any nonresident amongst 13 questionnaire respondents of unknown residency.

Table 16.-Visitor recommendations regarding potential future limitation of visitor groups' size and length of stay at Ayakulik River.

	2003		2004		(\pm) % change
	No. of responses	% of total	No. of responses	% of total	
Preferred maximum group size ^a :	(249 respondents)		(230 respondents)		
2 persons	3	1%	0	-	-1%
3 persons	5	2%	5	2%	0%
4 persons	47	19%	31	13%	-5%
5 persons	16	6%	16	7%	1%
6 persons	75	30%	88	38%	8%
7 persons	0	-	1	<1%	<1%
6 - 8 persons	5	2%	0	-	-2%
8 persons	36	14%	41	18%	3%
9 persons	0	-	1	<1%	<1%
10 persons	5	2%	3	1%	-1%
15 persons	0	-	2	1%	1%
20 persons	5	2%	0	-	-2%
No limit	47	19%	42	18%	-1%
Preferred maximum length of stay ^b :	(251 respondents)		(238 respondents)		
2 days	4	1%	1	<1%	<-1%
3 days	17	5%	2	1%	-4%
4 days	16	5%	2	1%	-4%
5 days	29	9%	41	17%	8%
6 days	21	7%	24	10%	4%
6 - 7 days	3	1%	0	-	-1%
7 days	62	19%	74	31%	12%
8 days	8	3%	0	-	-3%
9 days	5	2%	0	-	-2%
10 days	21	7%	42	18%	11%
12 days	3	1%	0	-	-1%
14 days	9	3%	1	<1%	<-3%
No limit	58	18%	49	21%	2%

Note: Results tabulated from visitor census conducted at Ayakulik River, June 1 through July 2, 2003 and 2004.

^a Visitor group size categories preferred by less than 3 respondents in 2003 not listed; total respondents include 24 visitors who do not support group size limits but also offered a preference on an appropriate/ideal group size.

^b Length of stay categories preferred by less than 3 respondents in 2003 not listed; total respondents include 15 visitors who do not support length of stay limits but also offered a preference on an appropriate/ideal trip length.

FIGURES

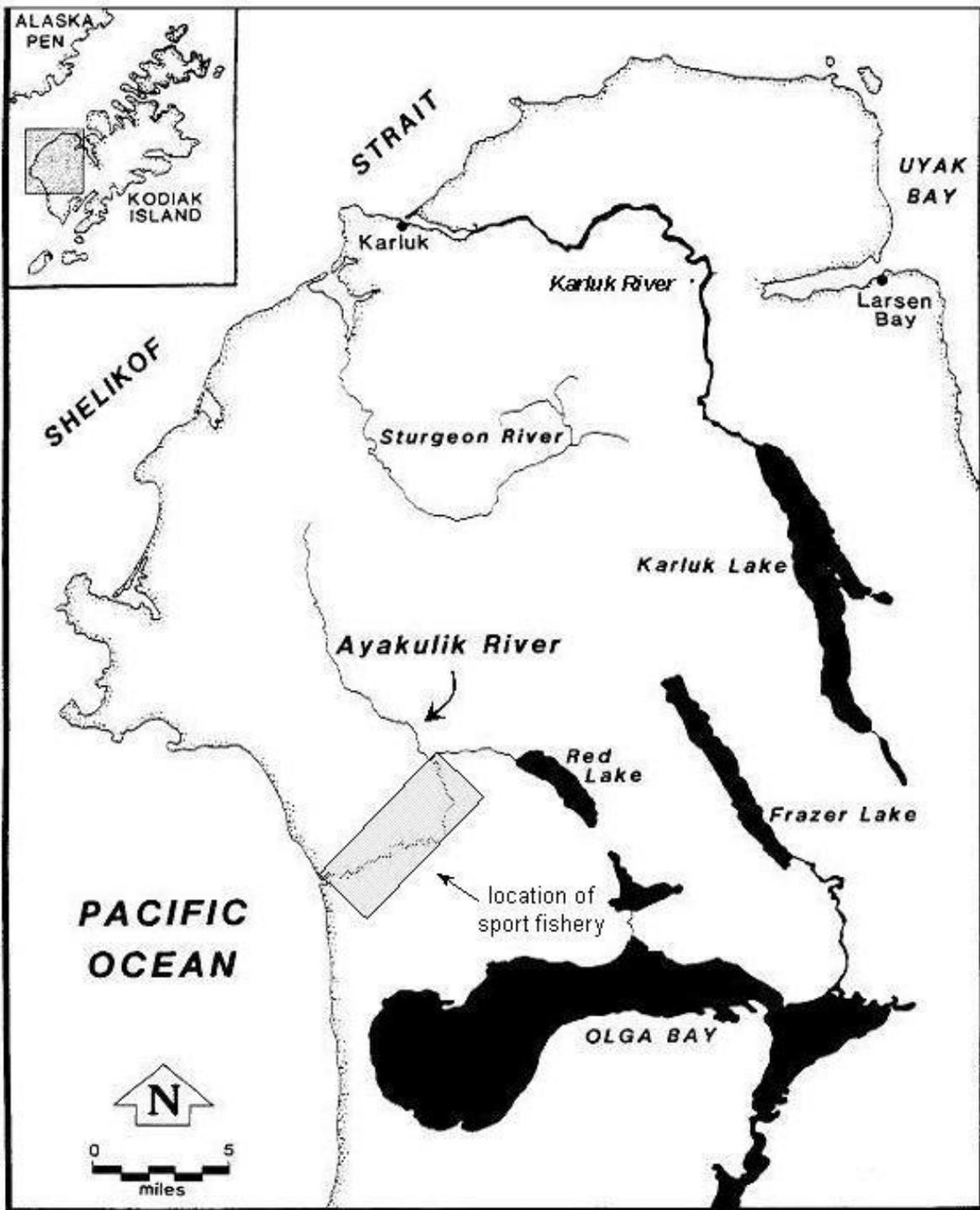


Figure 1.-Location of Ayakulik River Chinook salmon sport fishery on Kodiak Island.

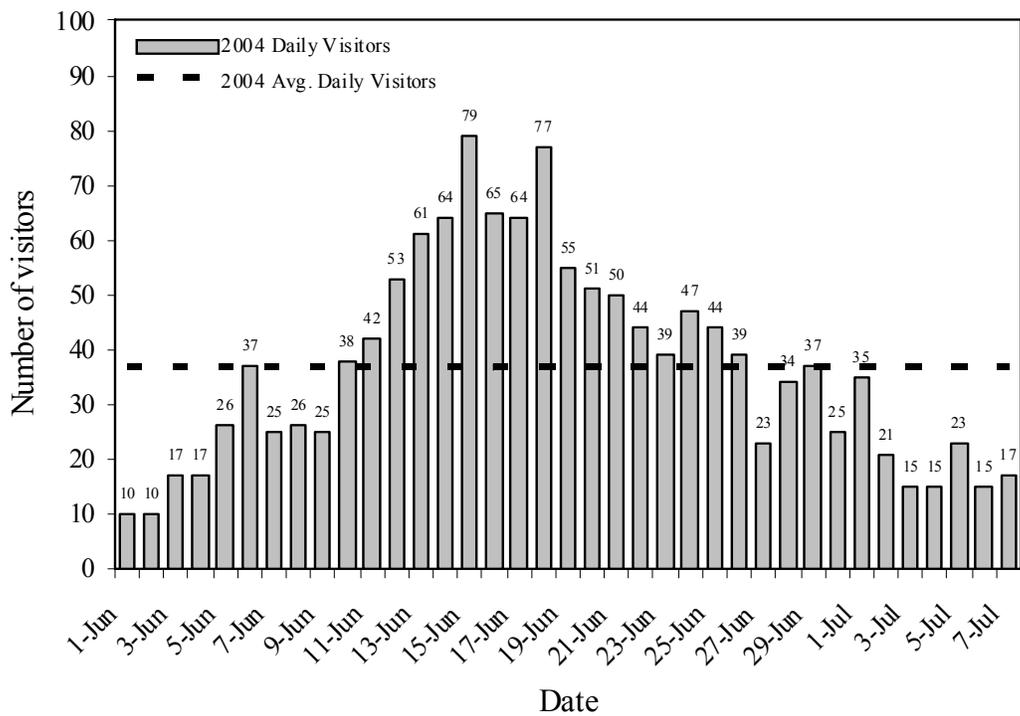
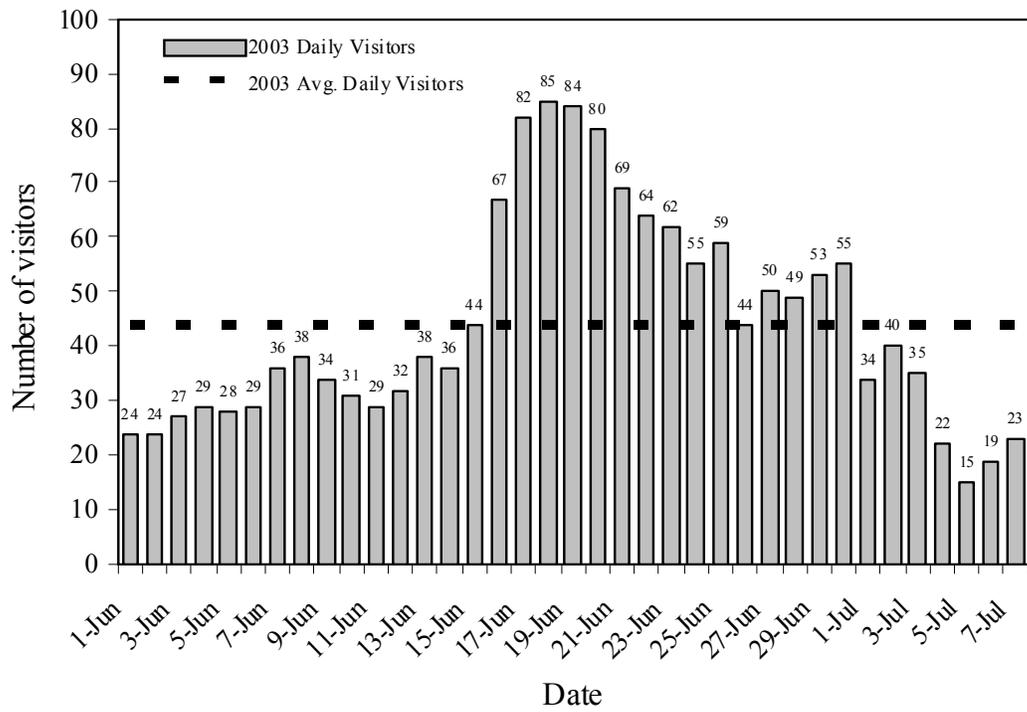


Figure 2.-Total daily visitors to Ayakulik River, June 1 through July 7, 2003 and 2004.

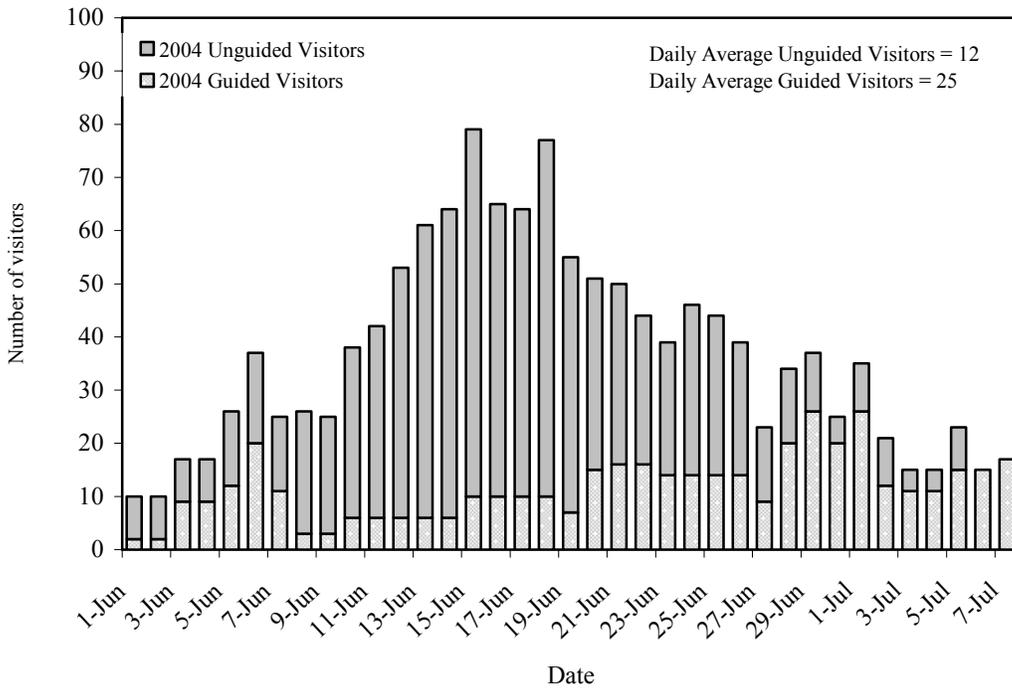
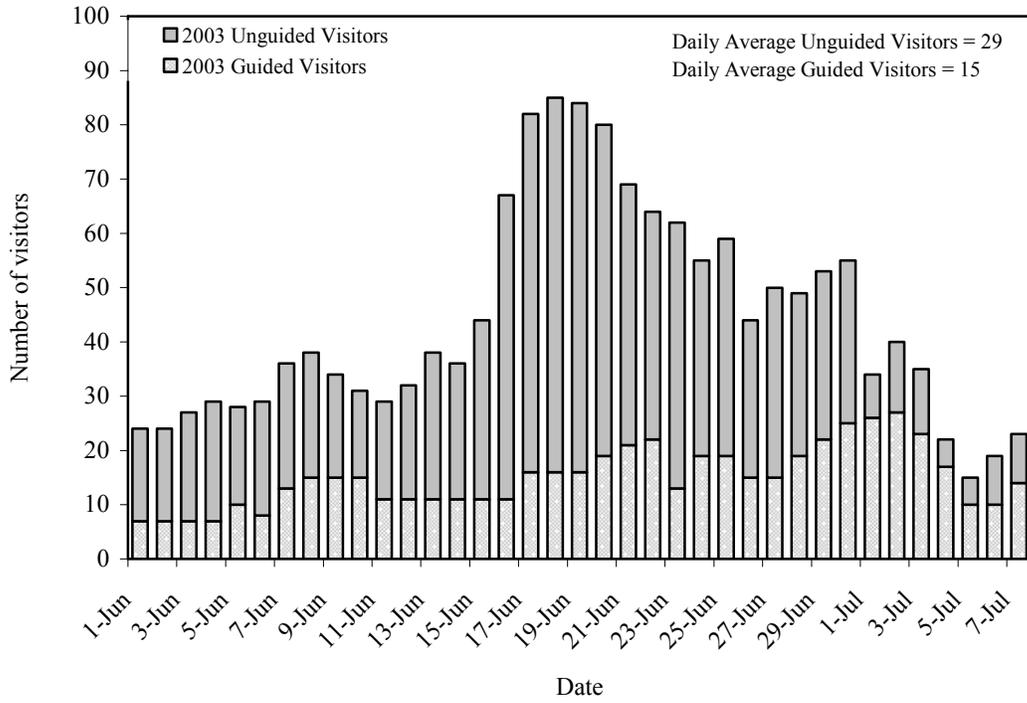


Figure 3.-Total daily guided and unguided visitors to Ayakulik River, June 1 through July 7, 2003 and 2004.

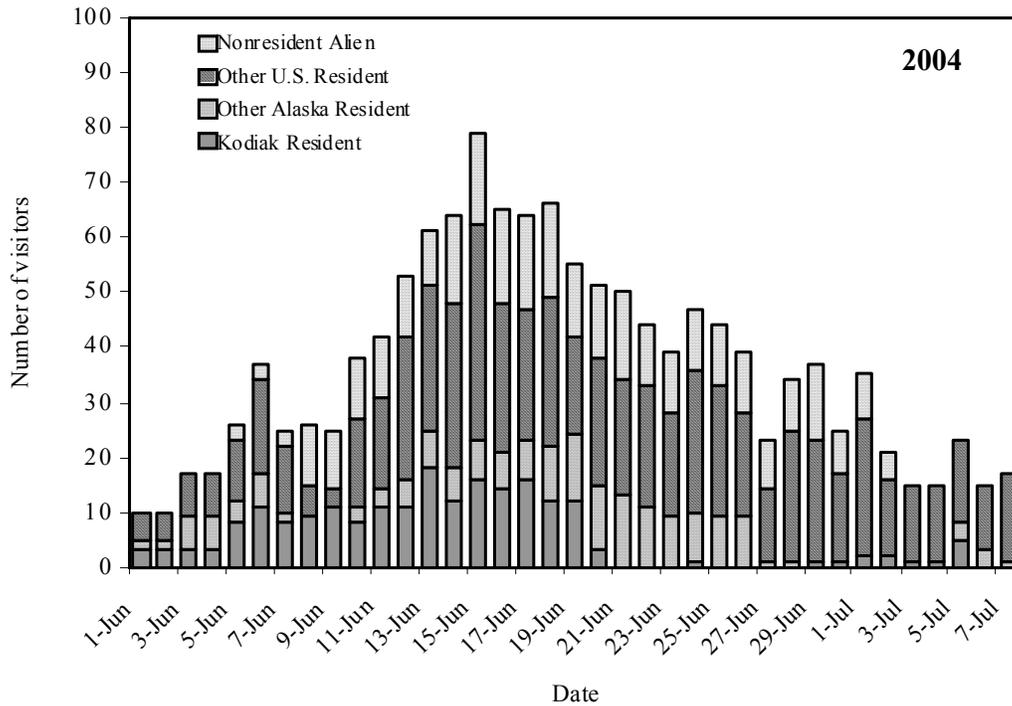
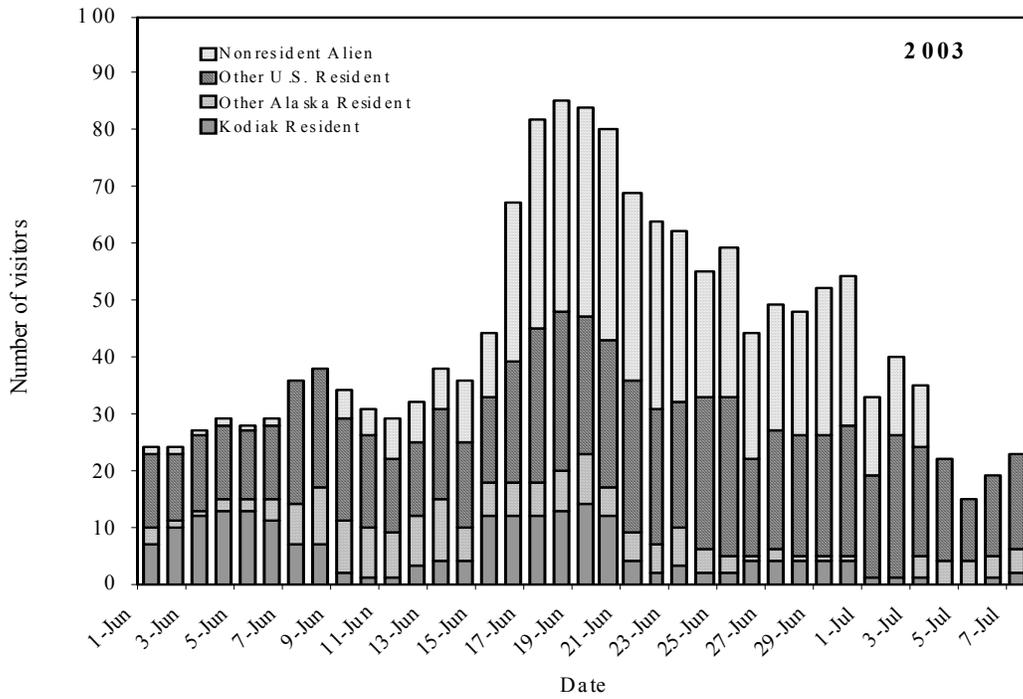


Figure 4.-Total daily resident and non-resident visitors to Ayakulik River, June 1 and July 7, 2003 and 2004.

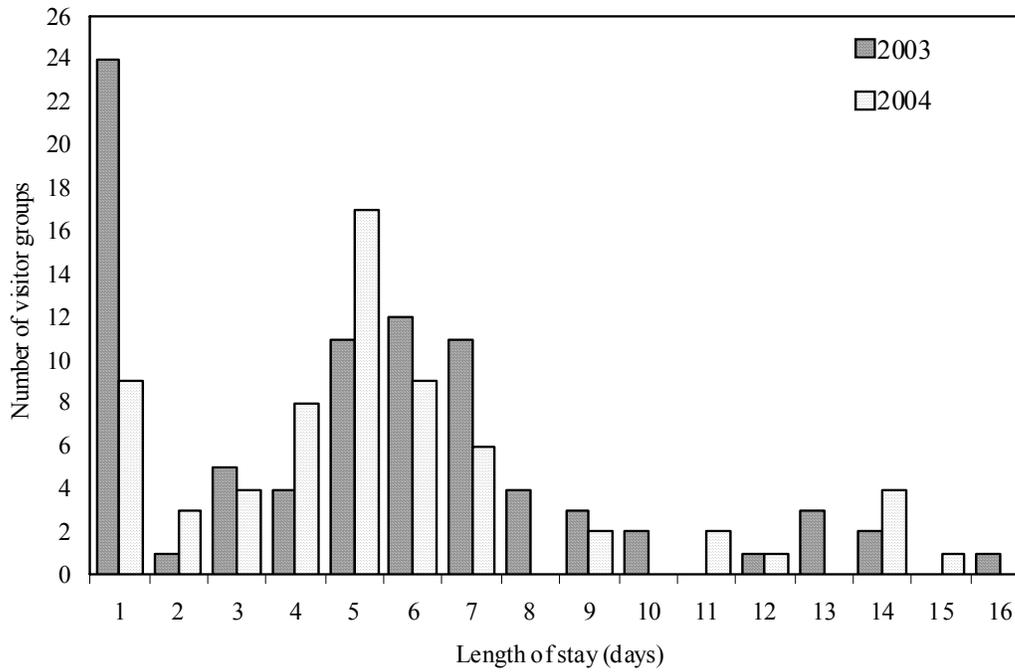
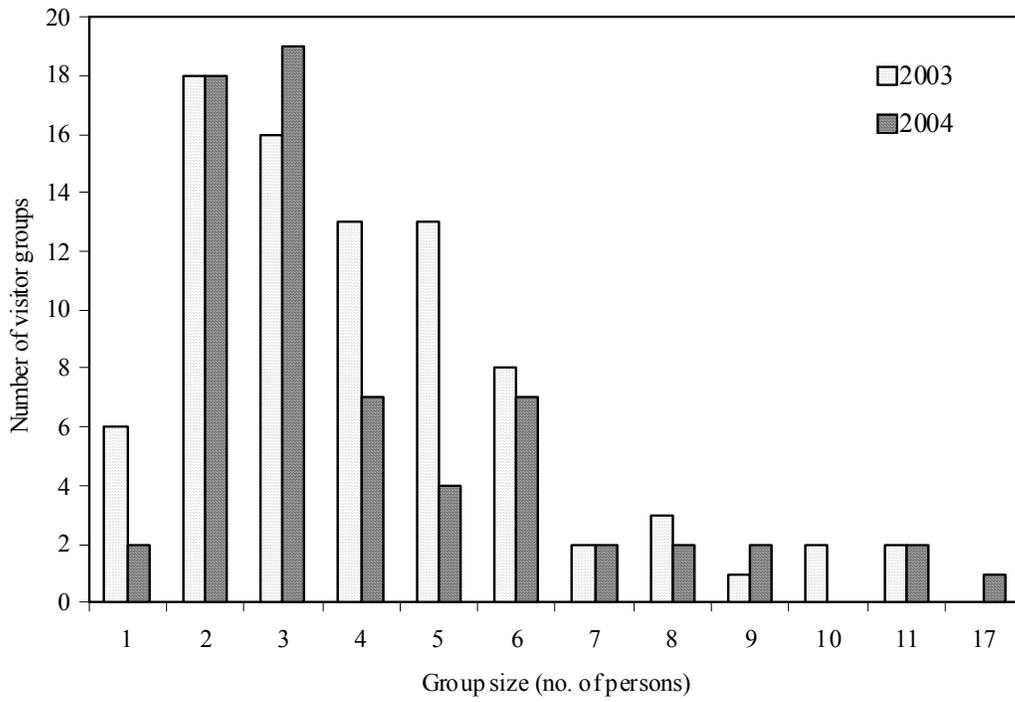


Figure 5.-Number, size, and length of stay for visitor groups at Ayakulik River, June 1 through July 7, 2003 and 2004.

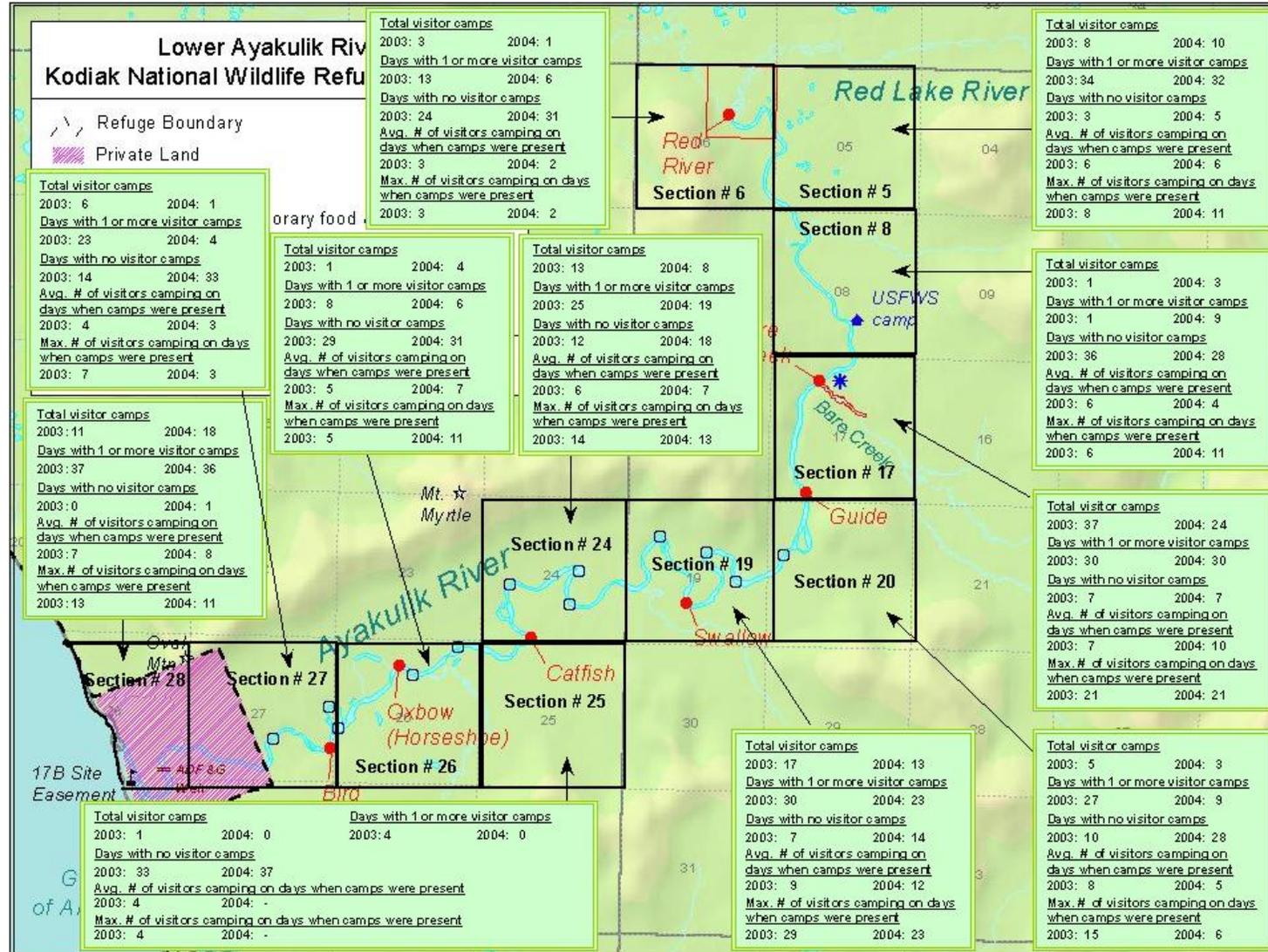


Figure 6.-Summary of Ayakulik River visitor camping by location, June 1 through July 7, 2003 and 2004.

**APPENDIX A. AYAKULIK RIVER VISITOR USE
BROCHURE**

AYAKULIK RIVER

KODIAK NATIONAL WILDLIFE REFUGE

The Ayakulik River is one of two rivers on Kodiak Island that offer remote king salmon fishing and it has become very popular. Over the past several years, staff from both the Alaska Department of Fish and Game (responsible for managing the sport fishery) and the U.S. Fish and Wildlife Service (responsible for managing Kodiak National Wildlife Refuge) have heard concerns from visitors about the quality of experience during the fishery. Visitors experienced concern about prime fishing holes being monopolized by anglers camping directly at the holes, people in large groups staying for extended periods of time, garbage being left or buried along the river, and general overcrowding.

In response to these concerns, both agencies began a public process to determine what type of fishing experience visitors wanted and how these preferences could be accommodated. Letters soliciting input were mailed to past visitors, public meetings were held, and the local fish and game advisory committee was consulted. The fish and game committee appointed a work group to study the issues and recommend ways to develop a management policy reflecting the interests of users.

For the 2003 fishery, the work group will review data collected during the season to determine what, if any, further management actions are needed. If a plan is developed that recommends managing certain aspects of visitor use, that plan may subsequently be proposed for regulation.

As you leave the fishery this year, you will be asked for your ideas on future management. What you and other visitors say will be summarized and presented to the work group. The work group will use the summary as the basis for any management actions they recommend.

To address the concerns voiced during the public process so far, the agencies and work group have decided to implement the following measures for the 2003 fishery:

- 1.) **Voluntary camping closures** around 7 popular fishing holes, including 2 areas frequented by brown bears. These holes are identified on the reverse side of this brochure. Area closures will be posted at the up- and down-stream limits. Please comply with these **voluntary camping closures**.
- 2.) During the peak of the king salmon fishery, June 1 – June 30, ADF&G and Kodiak Refuge recommend keeping your group size to 6 or fewer and your stay to 7 days or less.
- 3.) An exit survey will be conducted ADF&G to help evaluate effectiveness of the voluntary camping restrictions and other aspects of this year's fishery, including whether or not you were satisfied with your experience in 2003; and, if you were not satisfied, what management measures you would recommend for future seasons.

The map on the reverse side of this page shows locations of the **voluntary camping closure areas**. Also shown is the ADF&G weir, which has a boat gate for passage of kayaks, rafts, etc. There is a marked 17b easement which allows camping, loading, and unloading (limited to 24 hours) near the mouth of the river. Aircraft pickups in the lagoon are made from this spot when conditions allow.

Visitor Guidelines:

- 1.) Disturbance of archaeological and historical sites is prohibited (16 USC 470aa) and is punishable by fines up to \$100,000 and a year in jail.
- 2.) Monopolizing fishing areas is discouraged.
- 3.) Discharge of firearms is valid only for hunting or for defense of life or property. State of Alaska defense of life or property provisions (5AAC 92.410) must be followed when dealing with nuisance or threatening bears.
- 4.) All camping and fishing sites must be maintained in a neat and sanitary manner.

PACK IT IN – PACK IT OUT!

- 1.) All items transported to the Ayakulik River must be removed when you leave, including equipment, food and all garbage (**burying garbage is prohibited**). Burning trash is allowed, but not recommended. The marine climate and lack of firewood make burning difficult. Remember to pick through the ashes for unburned metals, foil and plastic. Pack these out on the plane with you. Leaving your trash behind is considered littering and you will be cited.
- 2.) Store food and garbage in bear proof containers available from the Kodiak Refuge on a first come first serve basis.
- 3.) Dispose of fish offal in the river.
- 4.) Electric fences to protect food and personal property are helpful in deterring bears and foxes.
- 5.) Toilet paper is trash too. Bring baggies so you can pack it out or burn it.
- 6.) To avoid bear problems or unintentional waste, we recommend you not retain fish until the last day of your departure.

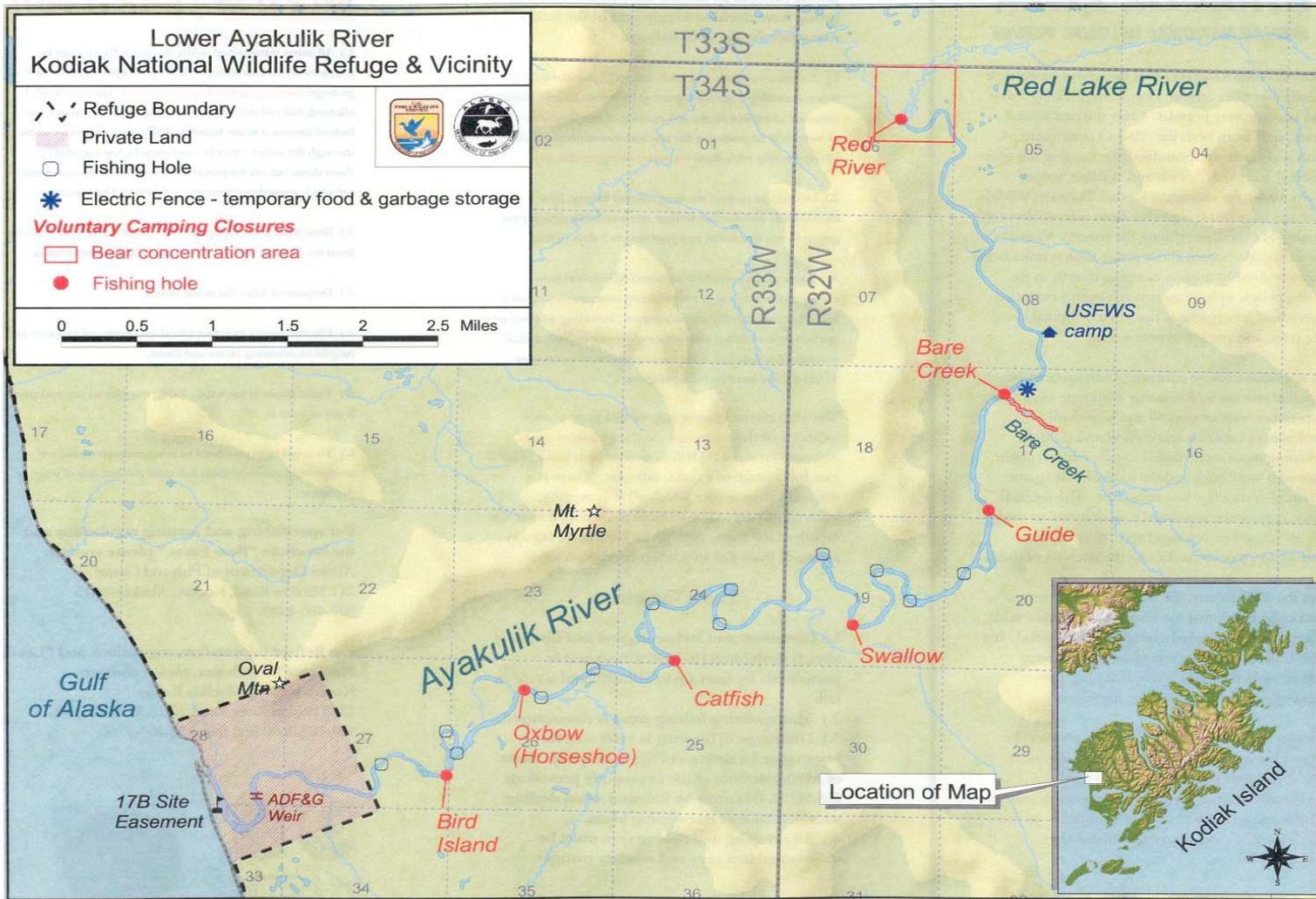
For sportfishing and hunting regulations and the brochure “Bear Facts,” please contact:

Alaska Department of Fish and Game
211 Mission Road, Kodiak, Alaska, 99615
907-486-1880

For Refuge information, regulations and “Leave No Trace” brochures, please contact:

Kodiak National Wildlife Refuge
1390 Buskin River Road, Kodiak, Alaska, 99615
907-487-2600 (toll free, 888-408-3514)





**APPENDIX B. AYAKULIK RIVER VISITOR USE CENSUS
QUESTIONNAIRES**

Appendix B1.-Ayakulik River visitor use census questionnaire, 2003.

field interview form # _____

#of visitors in group _____

**Ayakulik River
2003 Visitor Use Census
Questionnaire**

Summer 2003

Thank you for taking the time to complete this survey. Please answer every question to ensure the accuracy and value of the study results. Participation in this study is voluntary and you may be assured that your answers will remain anonymous. Except where instructed otherwise, please answer each question in the context of this particular trip to the Ayakulik River.

Q1. Which of the following categories describe your group? (check as many categories that apply)

- (1) Friends or family
 (2) I am by myself (specify) _____
 (3) Guided (commercial)
 (4) Non-guided
 (5) Fishing club
 (6) Other

Q2. Please indicate your residency status.

- (1) Kodiak resident
 (2) Alaska resident (non-Kodiak)
 (3) U.S. citizen (non-Alaska)
 (4) Non-U.S. Citizen

Q3. Including this trip, how many visits have you ever made to the Ayakulik River during the king salmon fishery? _____ visits (If this is your 1st visit, go to Question 6).

Q4. What was the year of your first visit to the Ayakulik River? _____

Q5. Considering this particular trip, do you think there are more, fewer or about the same number of visitors on the Ayakulik River than during your last trip?

- (1) More visitors
 (2) About the same number
 (3) Fewer visitors
 (4) Don't recall

Q6. Do you know any people who have previously visited the Ayakulik River during the king salmon fishery but have chosen not to visit anymore?

- (1) yes (answer Questions 6a)
 (2) no (skip to Question 7)

Q6a. How many people do you know that no longer visit the Ayakulik River? _____ people

Q7. There are a number of factors that can contribute to an enjoyable fishing experience. Please tell us how important each of the following factors were to you on this particular visit to the Ayakulik River. (Circle one response for each factor. If there are other factors, please write them in the blanks provided).

	Not Important	Somewhat Important	Very Important	Not applicable
a. Catching lots of fish.	-1	1	2	0
b. Not having to compete with others for a fishing spot.	-1	1	2	0
c. Having opportunities to view wildlife.	-1	1	2	0
d. Not seeing others while camping or fishing.	-1	1	2	0
e. Having a comfortable or convenient camping spot.	-1	1	2	0
f. Experiencing peace and quiet	-1	1	2	0
g. Other (specify) _____)		1	2	
h. Other (specify) _____)		1	2	

Q8. Do you think littering is a significant problem on the Ayakulik River?

- (1) yes
 (2) no

Appendix B2.-Ayakulik River visitor use census questionnaire, 2004.

field interview form # _____

of visitors in group _____

**Ayakulik River
2004 Visitor Use Census
Questionnaire**

Summer 2004

Thank you for taking the time to complete this survey. Please answer every question to ensure the accuracy and value of the study results. Participation in this study is voluntary and you may be assured that your answers will remain anonymous. Except where instructed otherwise, please answer each question in the context of this particular trip to the Ayakulik River.

Q1. Including this trip, how many visits have you ever made to the Ayakulik River during the king salmon fishery? ____ *visits*
(If this is your 1st visit, go to Question 4).

Q2. What was the year of your first visit to the Ayakulik River? _____

Q3. Considering this particular trip, do you think there are more, fewer or about the same number of visitors on the Ayakulik River than during your last trip?

- (1) More visitors
 (2) About the same number
 (3) Fewer visitors
 (4) Don't recall

Q4. Do you know any people who have previously visited the Ayakulik River during the king salmon fishery but have chosen not to visit anymore?

- (1) yes (**answer Questions 4a**) (2) no (**skip to Question 5**)

Q4a. How many people do you know that no longer visit the Ayakulik River? _____ *people*

Q5. There are a number of factors that can contribute to an enjoyable fishing experience. Please tell us how important each of the following factors were to you on this particular visit to the Ayakulik River. (Circle one response for each factor. If there are other factors, please write them in the blanks provided)..

	Not Important	Somewhat Important	Very Important	Not applicable
a. Catching lots of fish.	1	2	3	0
b. Not having to compete with others for a fishing spot.	1	2	3	0
c. Having opportunities to view wildlife.	1	2	3	0
d. Not seeing others while camping or fishing.	1	2	3	0
e. Having a comfortable or convenient camping spot.	1	2	3	0
f. Experiencing peace and quiet	1	2	3	0
g. Other (<i>specify</i>) _____)		2	3	
h. Other (<i>specify</i>) _____)		2	3	

Q6. Do you think littering is a significant problem on the Ayakulik River?

- (1) yes (2) no

Appendix B2.-Page 3 of 4.

Q7. During this particular trip, at how many locations along the river did you observe litter?

- (1) ¹ I did not observe any litter (3) ¹ some locations (approx. 5-12)
 (2) ¹ few locations (approx. 1-4) (4) ¹ numerous locations (more than 12)

Q8. During this particular trip, did you observe other visitors camped inside any of the voluntary camping closure zones?

- (1) ¹ yes (2) ¹ no (skip to Question 11)

Q9. During this particular trip, did you decide not to fish at holes inside any of the voluntary camping closure zones due to the presence of other visitor camps in these areas?

- (1) ¹ yes (2) ¹ no

Q10. Considering this particular visit to the Ayakulik River, please indicate how strongly you agree or disagree with each of the following statements by circling the appropriate response.

	Strongly disagree	Disagree	Agree	Strongly agree	Not applicable
a. I would like to visit again in the future.	1	2	3	4	0
b. I would like to have another experience like the one I just had.	1	2	3	4	0
c. In general, I was able to fish where I wanted.	1	2	3	4	0
d. I caught about as many fish as I expected.	1	2	3	4	0
e. I had no problem finding a satisfactory campsite.	1	2	3	4	0
f. The number of people I encountered on the river did not have a negative impact on my visit	1	2	3	4	0

Addressing or minimizing impacts may involve some trade-offs. The following questions ask for your opinion toward management strategies that might be used to help reduce impacts. Please answer Question 12 by circling the appropriate response for each item. These items are public use management techniques sometimes used in other river systems. **IMPORTANT:** The previous sections of this survey asked you to answer questions in the context of your most recent visit to the Ayakulik River; **In this section, please answer the questions based on how you think the listed management techniques would influence your future visitor experience on a trip to the Ayakulik River during the Chinook salmon fishery.**

Q11. Do you support or oppose implementation of the following management actions for improving the visitor experience on the Ayakulik River during the king salmon fishery?

	Strongly oppose	Oppose	Neutral	Support	Strongly support
a. Continued voluntary camping area restrictions.	1	2	0	3	4
b. Mandatory instead of voluntary camping area restrictions.	1	2	0	3	4
c. Elimination of all camping area restrictions.	1	2	0	3	4
d. Limiting group size.	1	2	0	3	4
e. Limit length of stay.	1	2	0	3	4
f. Limit the total number of visitors allowed on the river daily.	1	2	0	3	4

**APPENDIX C. AYAKULIK RIVER DAILY VISITOR
ATTRIBUTES**

Appendix C1.-Ayakulik River daily visitor attributes between June 1 and July 7, 2003.

Date	Guided Visitors		Unguided Visitors ^a		Fishing Club Members		Kodiak Residents		Other AK Residents		Other U.S. Residents		Nonresident Aliens	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1-Jun	7	29%	17	71%	0	0%	7	29%	3	13%	13	54%	1	4%
2-Jun	7	29%	17	71%	0	0%	10	42%	1	4%	12	50%	1	4%
3-Jun	7	26%	20	74%	0	0%	12	44%	1	4%	13	48%	1	4%
4-Jun	7	24%	22	76%	0	0%	13	45%	2	7%	13	45%	1	3%
5-Jun	10	36%	18	64%	0	0%	13	46%	2	7%	12	43%	1	4%
6-Jun	8	28%	21	72%	0	0%	11	38%	4	14%	13	45%	1	3%
7-Jun	13	36%	23	64%	0	0%	7	19%	7	19%	22	61%	0	0%
8-Jun	15	39%	23	61%	0	0%	7	18%	10	26%	21	55%	0	0%
9-Jun	15	44%	19	56%	0	0%	2	6%	9	26%	18	53%	5	15%
10-Jun	15	48%	16	52%	0	0%	1	3%	9	29%	16	52%	5	16%
11-Jun	11	38%	18	62%	0	0%	1	3%	8	28%	13	45%	7	24%
12-Jun	11	34%	21	66%	0	0%	3	9%	9	28%	13	41%	7	22%
13-Jun	11	29%	27	71%	0	0%	4	11%	11	29%	16	42%	7	18%
14-Jun	11	31%	25	69%	0	0%	4	11%	6	17%	15	42%	11	31%
15-Jun	11	25%	33	75%	0	0%	12	27%	6	14%	15	34%	11	25%
16-Jun	11	16%	56	84%	13	19%	12	18%	6	9%	21	31%	28	42%
17-Jun	16	20%	66	80%	21	26%	12	15%	6	7%	27	33%	37	45%
18-Jun	16	19%	69	81%	21	25%	13	15%	7	8%	28	33%	37	44%
19-Jun	16	19%	68	81%	21	25%	14	17%	9	11%	24	29%	37	44%
20-Jun	19	24%	61	76%	21	26%	12	15%	5	6%	26	33%	37	46%
21-Jun	21	30%	48	70%	21	30%	4	6%	5	7%	27	39%	33	48%
22-Jun	22	34%	42	66%	21	33%	2	3%	5	8%	24	38%	33	52%
23-Jun	13	21%	49	79%	21	34%	3	5%	7	11%	22	35%	30	48%
24-Jun	19	35%	36	65%	13	24%	2	4%	4	7%	27	49%	22	40%
25-Jun	19	32%	40	68%	13	22%	2	3%	3	5%	28	47%	26	44%
26-Jun	15	34%	29	66%	9	20%	4	9%	1	2%	17	39%	22	50%
27-Jun	15	31%	34	69%	9	18%	5	10%	2	4%	21	43%	22	45%
28-Jun	19	40%	29	60%	9	19%	5	10%	1	2%	21	44%	22	46%
29-Jun	22	42%	30	58%	9	17%	5	10%	1	2%	21	40%	26	50%
30-Jun	25	46%	29	54%	9	17%	5	9%	1	2%	23	43%	26	48%
1-Jul	26	79%	7	21%	0	0%	2	6%	0	0%	18	55%	14	42%
2-Jul	27	68%	13	33%	0	0%	1	3%	0	0%	25	63%	14	35%
3-Jul	23	66%	12	34%	0	0%	1	3%	4	11%	19	54%	11	31%
4-Jul	17	77%	5	23%	0	0%	0	0%	4	18%	18	82%	0	0%
5-Jul	10	67%	5	33%	0	0%	0	0%	4	27%	11	73%	0	0%
6-Jul	10	53%	9	47%	0	0%	1	5%	4	21%	14	74%	0	0%
7-Jul	14	61%	9	39%	0	0%	2	9%	4	17%	17	74%	0	0%
Daily Average	15	38%	29	62%	6	10%	6	14%	5	12%	19	48%	14	26%

^a Includes visitors identifying themselves members of a fishing club.

Appendix C2.-Ayakulik River daily visitor attributes between June 1 and July 7, 2004.

Date	Guided Visitors		Unguided Visitors ^a		Fishing Club		Kodiak Resident		Other Alaska Resident		Other U.S. Resident		Nonresident Alien	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1-Jun	2	20%	8	80%	0	0%	3	30%	2	20%	5	50%	0	0%
2-Jun	2	20%	8	80%	0	0%	3	30%	2	20%	5	50%	0	0%
3-Jun	9	53%	8	47%	0	0%	3	18%	6	35%	8	47%	0	0%
4-Jun	9	53%	8	47%	0	0%	3	18%	6	35%	8	47%	0	0%
5-Jun	12	46%	14	54%	0	0%	8	31%	4	15%	11	42%	3	12%
6-Jun	20	54%	17	46%	0	0%	11	30%	6	16%	17	46%	3	8%
7-Jun	11	44%	14	56%	4	16%	8	32%	2	8%	12	48%	3	12%
8-Jun	3	12%	23	88%	4	15%	9	35%	0	0%	6	23%	11	42%
9-Jun	3	12%	22	88%	4	16%	11	44%	0	0%	3	12%	11	44%
10-Jun	6	16%	32	84%	4	11%	8	21%	3	8%	16	42%	11	29%
11-Jun	6	14%	36	86%	4	10%	11	26%	3	7%	17	40%	11	26%
12-Jun	6	11%	47	89%	4	8%	11	21%	5	9%	26	49%	11	21%
13-Jun	6	10%	55	90%	4	7%	18	30%	7	11%	26	43%	10	16%
14-Jun	6	9%	58	91%	10	16%	12	19%	6	9%	30	47%	16	25%
15-Jun	10	13%	69	87%	10	13%	16	20%	7	9%	39	49%	17	22%
16-Jun	10	15%	55	85%	10	15%	14	22%	7	11%	27	42%	17	26%
17-Jun	10	16%	54	84%	10	16%	16	25%	7	11%	24	38%	17	27%
18-Jun	10	13%	67	87%	10	13%	12	16%	10	13%	27	35%	17	22%
19-Jun	7	13%	48	87%	10	18%	12	22%	12	22%	18	33%	13	24%
20-Jun	15	29%	36	71%	10	20%	3	6%	12	24%	23	45%	13	25%
21-Jun	16	32%	34	68%	10	20%	0	0%	13	26%	21	42%	16	32%
22-Jun	16	36%	28	64%	6	14%	0	0%	11	25%	22	50%	11	25%
23-Jun	14	36%	25	64%	6	15%	0	0%	9	23%	19	49%	11	28%
24-Jun	14	30%	32	68%	6	13%	1	2%	9	19%	26	55%	11	23%
25-Jun	14	32%	30	68%	6	14%	0	0%	9	20%	24	55%	11	25%
26-Jun	14	36%	25	64%	6	15%	0	0%	9	23%	19	49%	11	28%
27-Jun	9	39%	14	61%	6	26%	0	0%	1	4%	13	57%	9	39%
28-Jun	20	59%	14	41%	6	18%	0	0%	1	3%	24	71%	9	26%
29-Jun	26	70%	11	30%	0	0%	1	3%	0	0%	22	59%	14	38%
30-Jun	20	80%	5	20%	0	0%	1	4%	0	0%	16	64%	8	32%
1-Jul	26	74%	9	26%	0	0%	2	6%	0	0%	25	71%	8	23%
2-Jul	12	57%	9	43%	0	0%	2	10%	0	0%	14	67%	5	24%
3-Jul	11	73%	4	27%	0	0%	1	7%	0	0%	14	93%	0	0%
4-Jul	11	73%	4	27%	0	0%	1	7%	0	0%	14	93%	0	0%
5-Jul	15	65%	8	35%	0	0%	5	22%	3	13%	15	65%	0	0%
6-Jul	15	100%	0	0%	0	0%	0	0%	3	20%	12	80%	0	0%
7-Jul	17	100%	0	0%	0	0%	0	0%	1	6%	16	94%	0	0%
Daily Average	12	40%	25	60%	4	9%	6	15%	5	13%	18	52%	8	20%

^a Includes visitors identifying themselves members of a fishing club.

**APPENDIX D. AYAKULIK RIVER VISITORS
SUPPLEMENTAL WRITTEN COMMENTS**

Appendix D1.-Supplemental written comments from visitors to the Ayakulik River between June 1 and July 7, 2003

Interview #

Comment(s)

020 Do whatever it takes to protect this fishery. We don't need another depleted river.

021 Very Good!

021 We are opposed to bait fishing in the Ayakulik.

021 Ha estat una experiencia molt bona. Esperen retornar una altra vegada no pesca con huevas. (English translation: "We had an excellent experience and would like to return, but do not favor fishing with bait.")

021 We are opposed to bait fishing in the Ayakulik.

021 Una experiencia muy positiva. (English translation: "I had a very good experience.")

012 Limit or eliminate unguided floaters. This should be treated like a park where permits limit the people in an area. Last time I was here there were too many people on the river. This time we didn't go up river. When we did go up river I noticed some of the campsites had some trash left behind.

012 Tell visitors not to drop cigarette butts on river.

015 I saw a group of four Italians land a king and cut it open, take the eggs out and discard the rest of the king into the water. We later photographed 10 fish cut open and discarded. This practice needs to be stopped.

018 Bait should be prohibited. Closures at top and bottom eliminated - only done for Harms and Jones financial interests.

018 Disallow use of roe(eggs). That would by itself take care of overpopulation.

018 Ban bait, salmon eggs. Closures at Bird Island and Red River serve only the commercial operators.

011 Ok, thank you.

011 Merci, thank you.

011 Merci, beautiful formidable.

012 Don't open gate while we are fishing in the weir.

169 Electric fence - very nice to keep food!

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<u>Interview #</u>	<u>Comment(s)</u>
169	Question 13 and 14 were redundant. This is pristine wilderness and good fishing unencumbered by fishing pressure or commercial slaughter of fish; it should remain so.
169	Spent all day in electric fence due to "frolic" our favorite little bear. Saved by Nate and Nate. Metal boxes great - when trying to have non-rigid containers in floatplanes gave us places to put things! Thank you for a great 5 days!
171	Enjoyed the trip very much. Hope it will be the same in later years for somebody else.
171	I visited the river about the same time in 2002 and I believe the camping restrictions have improved the river this year. We were able to fish more locations and not feel like we were violating someone camp area. I believe the new voluntary restrictions have made a big improvement.
171	I would happily adhere to more regulation in order to maintain this wonderful resource. This includes reducing usage or fish retention. I suggest eliminating the euphemism "harvest" to describe the killing of wild fish. "Harvest" connotes the picking of a planted crop. We're killing wild animals here. I see a big difference. I suggest that all groups visiting the river should be at least as restricted as guided groups, maybe more so. A thoughtful guide might be the resource's best defense. Thank you.
157	You should limit the number of planes and passengers in any given day.
157	I highly recommend utilizing the model used on the Chilkoot Trail. "Metering" the flow of people through the river, limiting the numbers, will enhance the experience. One-day fly-ins from lodges should be limited to one planeload a day, in addition to Fejes & Jones operations.
160	I didn't answer the end of the survey because this is the first time I've been here and I don't know how to answer the questions.
160	Sam Fejes runs a great camp - so enjoyable and very informative and fun.
160	It will be difficult to improve on our visit!
161	I strongly support group size limitations, length of stay, 28 people at Bear Creek is way too many. I think the total number of people should be assigned a spot to camp and limited to those spots only.

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<u>Interview #</u>	<u>Comment(s)</u>
161	A permit system that would help control the numbers of people on the river at a given time would be helpful. There is a system on the Salmon River such as this (in Idaho) that helps maximize a person's experience in the wilderness. A minimum boundary for camps from the river to keep campsites from being too close to the river including the designated camp spots.
235	Need to put guide camps in neutral areas. The large camp up stream from Bear Creek is right on a great corner hole - I fished here many times, now I can't.
236	Nathan should be hired permanently. Very courteous.
238	Limit stay June 1 through June 30, other times do not seem to be a problem. Nathan and Greg did a great job and are very helpful and professional.
238	We enjoy a 14-day trip. We generally come in the last week in May and stay through the first week in June. We like to fish steelhead and kings. We also like the solitary experience.
239	(Part owner of Alpine View Lodge): The Ayakulik River is a very special place especially for the bears. It's a wonderful experience to sit above the confluence of the Red & Ayakulik River and watch the bears chase fish. The bears are lucky they have a food source such as this area. I do hope people will respect this area and not camp there. Thanks.
002	Beautiful area - must be preserved at all costs. It cannot be replaced. To "enhance" visitor experience, to me, suggests more commercial activity. I think that would be a mistake. I believe it would be much better to limit activities on the river - to preserve it for many generations to come. I will never forget my first visit - not my last!
002	I believe that the use of current Ayakulik River facilities is at peak (present limitations). I have visited the Ayakulik River (Dennis Harms) on 4 previous occasions. I would suggest that the current use levels are not increased. More people will press the area, and bring problems or develop problems, which will reduce wildlife, increase waste and limit wildlife development. Please do not press (expand) the use of this important area.
002	The more people on the river, the more trash, the more camping for long periods in close proximity to the holes. I suspect voluntary restrictions are a hopeful start but fear that mandatory restrictions will be necessary.
004	Limit float trips. They should be limited by permit only.
243	Do whatever it takes to preserve this incredible resource, please.

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<u>Interview #</u>	<u>Comment(s)</u>
243	Accessing the river for most people is an expensive proposition, there in my opinion it is critical that the river remain a remote and unpopulated experience. Too many fishermen will spoil the area as has been the case of other rivers and parks in Alaska and the lower 48.
244	Bait fishing closure.
245	Need to enforce litter pick up - saw broken lures, line, etc., along bank. Also discourage feeding animals.
245	Had a great time!
246	I think that guides cause a problem in two ways - people and the camping and sending the large number of boats down stream. #2 motors and motor boats on the river, oars would be just fine and keep quality wilderness experience.
246	Voluntary camping restrictions good idea, and people seem to be complying. Probably no reason not to make this a mandatory requirement. Probably also should include the boulder hole (hole below guide hole) in the camping restrictions.
246	Limit use of motorboats. Always a memorable experience.
246	I don't think the use of boats and motors should be eliminated.
024	Litter included whole discarded salmon carcasses.
024	US citizens should be given priorities for all river privileges.
024	Too many foreigners that don't respect natural things and rules.
024	Guiding friends.
025	Permitted use is needed to limit number of people on river. Also limit camping areas/sites and control length of time of stay. Great river and wonderful area but without controls and restrictions the river will be trashed. This is too small of a river to not have restrictions. Thank you for letting me help.
025	Reduce or regulate floating, similar to middle fork of the Salmon River.
025	The sizeable flight traffic at the lodge (Alaska Fish Safari) is not only a sad scene in a remote wilderness area, but also very dangerous.
025	The floatplanes taking off and landing at the mouth of the river is a disaster waiting to happen.

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<u>Interview #</u>	<u>Comment(s)</u>
025	Littering: charcoal for fire pits. Too many bootleg guided groups. e.g., groups more than four people usually must be considered as guided, especially coming from the "lower 48" or other continents.
025	We are at the Ayakulik lodge. Although I support campers on the river, there needs to be a limited number and a prescribed number of days allowed to stay. In addition, there needs to be a clear understanding of the use of the river. Campers can not put their camp on a fishing hole and claim it to be solely "theirs." Lodge guests must be able to fish too. Camping away from the river and off the trail would contribute to this greatly. USFWS must also have a good/excellent education program to help lodge owners/campers understand their privileges. Keep the Ayakulik as wild experience as possible!
004	The Ayakulik is my most favorite fishing hole. The total experience - nature, fishing, wildlife, Tom's lodge and unique in every sense of the word! My 4th trip. The Alaska Dept. Fish and Game staffs are hospital and they carry on effective fish management and bear program.
005	Remove large signs at closed camping areas.
007	There are too many guided or perhaps unguided floaters. The lower river should be fly-fishing only. There are lots of fish but few good fishing sites - Limit the groups floating the river!
007	1) Fly-fishing only on Ayakulik 2) Aliens only with Alaska guides.
007	Support: 1) fly fishing only 2) guided trips only 3) strongly limit camping and # of float parties.
025	This river could be used to death: I would recommend the following: 1) limit number of campsites 2) have total pack in/pack out rules including portable toilet needs 3) limit group size 4) limit outfitter use of the area with many of the sanctions that are currently in place by Dennis Harms Alaska Trophy Safaris 5) Develop a compromise of floating and power boat use that meets the needs of the Kodiak Natural Wildlife Refuge and its responsibility of r bear management and the public. 6) Have more enforcement of fishing/camping rules and a presence of law enforcement at least during king season. 7) work to eliminate rogue outfitters through stiff penalties

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<u>Interview #</u>	<u>Comment(s)</u>
025	Encountered way too many people. First time visitor. I expected a remote pristine location with lots of fish. Instead I encountered dozens(hundreds) of people, limited fish (holes heavily fished), dozens of planes 50 yards from the lodge I stayed, I could have fished at the end of the runway at Los Angeles International Airport with the same experience. I spent \$5000+ to stand shoulder to shoulder with dozens of rafters competing for space on the river. Not an overall great experience. The potential is incredible but has been allowed to be degraded beyond common sense. Please manage this wonderful resource better.
025	Guided fishing by a group such as Alaska Trophy Safaris respect the resource because they have an investment. The floaters do not. Severely limit floaters.
027	2003 measures are heavily weighed to support the commercial enterprises. The closures of the lower areas are for the benefit of the lodge. The lodge would put up to 8 rods on a hole and monopolize the fishing. The generator noise should be eliminated. Eliminate the use of bait to stop wanton waste.
027	The number of people I encountered on the river did not have a negative impact on my visit except for the guided fishermen from the lodge. No limit on stay. No camping closures. If certain areas are more impacted than others make a 3-4 limit on stay, then move. I hated hearing airboats. I hated seeing signs. I hated hearing generators. No bait use--artificial lure only.
029	Have had a great trip with Alaska Trophy Safaris. Protect the Refuge and river from any further development.
029	Both my brother and I are handicapped and it would be nice if, with a handicapped sticker, you could use the airboat to get to higher up fishing holes. Also, my brother was severely injured by walking to the "first" fishing hole.
164	Guides left some litter on riverbank (very little). Guides flew in every day and crowded the fishing hole at Bear Creek. All used eggs, making fly fishing more difficult. -Have fishing holes where no bait can be used. -Keep male kings only. -Allow guides to fly large groups in only once or twice per week, not five days in a row!
248	Awesome river.
248	One of the best fishing days of my life.
250	1. Avoid an overcrowded river. This would completely ruin this paradise - and would be very difficult to reverse. Better to wait for a permit e.g. every second year, and experience wilderness, very good fishing and wildlife. 2. Noise problem. Possible to have limit for engine noise from outboards? 3. Learn from all the mistakes we have done in the Norwegian salmon rivers.

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<u>Interview #</u>	<u>Comment(s)</u>
250	The trip at Dave's Camp was fabulous for a Norwegian experiencing how the national resources and wildlife and sports fishing are ruined due to lack of regulation. The amount of fishermen being flown in is the biggest threat to this paradise. Please, limit the number of licenses sold for this river. I would rather line up for 2-3 years.
030	I have (<i>am</i>) not catch(<i>ing</i>) the king, just sockeyes (catch and release)
030	Keep female king salmon safe (<i>no retention</i>) any time keep 1 male each day. Some limited zone for fly-fishing - and change them every year.
032	ADF&G personnel helpful, knowledgeable, and courteous. Excellent experience!
032	I had an excellent experience. However, we were on the river during a relatively low use period. I would encourage further monitoring of the situation before making significant changes.
036	No more eggs.
036	No more fishing with eggs.
038	It would appear that foreign (non-US residents) visitors make up the vast majority of fishermen and guides. Is that because they are not following regulations? Very curious!
007	I have been here in June for 6 or 7 trips between 1990 and 2003. The numbers of people have increased every year, although not sure of this year as we haven't flown the river yet. I support the following means to restrict use: 1) fly fishing only 2) limit # of guided and non-guided visitors (guided to 12; non-guided to 8-12 at one time during the king season) 3) foreign visitors should be guided 4) Institute permit fee.
007	I strongly urge the Fish and Game Department to close the Ayakulik to fly-fishing only. This will help preserve the fisheries for future use.
008	Great year!
008	7 days, 6 people, limit campsites, permits if necessary.
009	Take down the bullshit signs.
009	Take down the signs on the river, This is not California!
009	8 days maximum stay is very important!

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Interview # Comment(s)

158 The Karluk was shut down so everyone went to Ayakulik. Reminded me of combat fishing on the Russian. Multiple camps at most good king salmon holes; i.e., 2 camps on island at head of guide hole (to reserve hole and not allow others to fish) and one camp at tail of guide - just outside the voluntary closure area. 20-30 fisherman on both sides of river at floatplane docking area. Terrible! Would not fish it again if conditions were the same.

160 It would be difficult to improve on our visit!

Appendix D2.-Supplemental written comments from visitors to the Ayakulik River between June 1 and July 7, 2004.

<u>Interview #</u>	<u>Comment(s)</u>
002	No Treble hooks, single hooks only
002	My trip was rewarding. My concern is not to allow overfishing, overcrowding and extended stays. Limitation is best!
003	Literature on catch and release"
003	Fly fishing only would be a good idea. There are very few places in AK where the fly fishing is as good as here.
003	Definitely limit the number of permanent camps or lodges to those who are only present now. Do not allow any more permanent growth.
024	The river area is very clean, very beautiful and very enjoyable. Seems you are doing an amazing job. Thanks!
003	I loved my stay here.
004	Let's cut down on foreign fishermen so there's more quality fishing for U.S. people.
005	Maximum group size 3.
007	If number of people on system is implemented, local preference is a must. I do not favor length of stay restriction.
008	No rain
009	Fishing and the experience was superb. Far above my expectations.
011	Maximum group size 3.
011	Maximum group size 3. Please let the lodge use only raft or little jet boats, but not on the upper river.
011	Maximum group size 3.
012	In 25 years of traveling, this is one of the most natural places I've been.
012	Great fishing experience! Great river!
012	I thought the voluntary camping restrictions on certain holes was fine. I would oppose any further regulations.
012	Weir counts at Bear creek was nice!
013	Wonderful fishing.
013	Maximum group size 10. What an awesome trip!
015	A great place. The people I met while there were "very" nice to us. I had a great time and would love to come back. Kodiak residents should always be allowed to have the opportunity to fish this river over all other users.
015	Nice place.

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<u>Interview #</u>	<u>Comment(s)</u>
015	I really enjoyed fishing. Thanks for the opportunity to fish.
016	Maximum length of stay 14 days.
018	Promote catch and release. This fishing area belongs to our grandchildren.
019	I stayed at Dennis Harms' camp.
019	There needs to be a differentiation between spin and fly casters. I observed the spin casters "killing the kings," while fly casting people can catch maybe five kings on a good day. From what I saw on my only visit here, spin casting needs to be watched.
020	Ayakulik is a great place!
020	In general, great nature, great place on earth. Take care of this life out here- thinking of bears fish and plants, and of course all the other animals.
021	Camping restrictions are overboard. Limit stays to 3 or 4 days for popular holes is better than not allowing any. Catfish and Swallow are the 2 most protected holes- 55 kts winds made it criminal not to allow camping there.
023	Awesome beauty and fishing. Thanks
024	Eliminate air boat and all power boats. Dave's lodge should not have exclusive camping rights between them and mouth of Red River.
024	No motorized boats.
024	Maximum group size 12. I think air boats should not be allowed and there should be no motorized boat traffic allowed.
024	Maximum group size 12. No airboats
024	Outstanding fishery, I strongly support maintenance and management of this valuable resource.
024	Oppose restrictions on float plane drop-off up river above Dave's camp. Make very inconvenient to fish Red river.
024	"No motors should be allowed- Jet, Airboat, etc. Cabins for reservation/ drawing should be built. Floatplane operations should be allowed to land nearer Red river confluence."
024	"Maximum group size 12. Limiting motors/ airboat usage. Continuing to solicit feedback from visitors on the quality of the experience. Congratulations to the F&G and the Refuge staff for being so courteous, helpful and friendly."
024	"Please eliminate motorized boats on this river. It is unnecessary. Not a huge problem now but could become intolerable. Thanks! F&G staff was kind and informative."
025	"Ayakulik river is unique, please try to conserve it as it is today. Better instructions for the salmon release procedure. Bleeding be reason for keeping. Keep 100m free zone from river for campers."

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<u>Interview #</u>	<u>Comment(s)</u>
025	Please allow the air boat to go up river. I cannot walk to the upper holes-handicap.
025	Maximum group size: capacity of the two lodges.
025	"My 7th visit to this river (Dave Jones-4x and Dennis Harms- 3x). A most beautiful, remote part of this globe with beautiful scenery and extraordinary fishing and wildlife. Please take care of this pearl of this planet! I live in Norway and we have destroyed so much- take lessons of our stupidity- do not repeat it! I hope to get back to Ayakulik as long as I live, every year. If restrictions, I would prefer every 2nd year as it is today, and want 1 year for the next catch."
026	Found no litter which was a plus! Enjoyed the whole trip
027	Very good river
028	Great trip
030	Make it a fly-fishing river only!
030	Make it a fly-fishing only river.
031	Maximum group size 15.
031	Maximum group size 10.
031	Maximum group size 9. Make this river fly fishing only, this is a perfect river for this activity!
031	Make this a fly fishing only river. It has a perfect habitat!
031	We had 14 people for 3 miles of more or less private water. Rafters are still allowed to fish these private waters and at this place in time, they were not a problem. I fished the Salmon River in N.Y. state where "crowded" is not good enough of a word. I don't want to go back. Alaska is a special place and at this point in time is not crowded, and I hope it stays that way.
031	Great experience!
031	The outdoor experience exceeded all expectations. The maximum exposure to nature and the minimum exposure to humans and fishing pressure makes this a wonderful learning experience and vacation. People of all ages (our group 24-64 yr.) can equally enjoy. Keep up the good work.
032	Ayakulik is the most pristine river for fly fishing king salmon in the world. To keep it this way visitors need to be limited to 5 days and no camping at the fishing holes. No camping on river, camp off 200ft from river.
032	Groups should need to camp off the fishing holes to allow other fishermen who have traveled all this way to enjoy all of the best fishing Ayakulik has to offer. Campers should also have a time limit stay of 5-7 days to allow everyone to have their chance.
033	"Fabulous experience! F&G people were personable and helpful!"

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<u>Interview #</u>	<u>Comment(s)</u>
034	Maximum group size 12.Limitations are about adequate. Do not understand the voluntary camping, please do not over fish and change the experience.
034	most amazing fishing trip of my life; wildlife, fishing and landscape is beautiful and pleasantly uncivilized
076	Maximum group size 7.
077	Refuge personnel provided us with valuable information. A most pleasant association. Very knowledgeable with local history and wildlife.
077	"Keep as many regulations as possible voluntary. But strive to keep it as pristine as possible. I think that any trip stay limits be enforced from June 1. When we come in May we do not see any other campers. Refuge personnel were wonderful and added to the enjoyment of my trip."
077	High marks to the Refuge personnel who handled the interview professionally. They were courteous and respectful and their enthusiasm for their work was obvious and infectious.
078	"1- No motorized vehicle-boat
079	Overall the river is managed very well. The guide operation on the upper river is outstanding, very environmentally conscious, resource conservation and great at education people about the river, bears and the area in general.
080	The genuine knowledge, and friendly attitude of the Refuge personnel was a great added benefit.
080	"I think you should be limiting the number of fish taken out. For novices in bear country, it would be good to hand a leaflet out on Do's and Don'ts for camping in bear country.
080	Keep it protected and keep it wild."
081	It would be nice to have a shitter so you don't have to squat down all the time, it's hard on the legs. And maybe flatter ground, just a suggestion.
081	The trip was incredible, amazing fishing and a great wilderness experience. It wouldn't hurt to put up a restroom. No bear problems whatsoever, although watching them was entertaining and I wish there were more opportunities. The weather could have been better but the fishing more than made up for it.
081	Supply some outhouses.
081	This is a great river and we love to come up here to fish. Don't ever shut it down or limit the out-of-state fishing people who come here.
081	Bathroom or outhouse

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<u>Interview #</u>	<u>Comment(s)</u>
081	It was a great fishing experience. Few camps, few people. The least amount of people I have ever seen. If the people are spread out along the river enough, I think there is no problem.
083	Limit use of eggs either totally (ideally), or even-odd days. Ban treble hooks on all lures, barbless single hook only.
084	Perfect!
084	Kings were amazing!
085	Had a great time. Appreciate the electric fence.
086	"No catch and release fishing using barbed bait hooks or treble hooks (including lures). Single hook only. Would support reducing to even or odd days for bait fishing using barbless hooks only. Great experience. Most fisherman were courteous and enjoying themselves whether fishing ""fast or slow"." Observed 6 dead fish down stream from a group of 7 using bait catch and release tactics for several days at Bear Creek."
086	I found this trip to be very pleasurable, and I would have no problem supporting the present management system. I would like to see a partial restriction on use of eggs. No problem using eggs if fish are caught for harvest, but not for catch and release.
088	Maximum group size 15.
089	Need to limit amount of people on river, less is best.
090	Ban the use of bait. No treble hooks.
090	Limit egg fishing and motors.
093	Staff here was great! Thank you!
093	Very nice and friendly, keep it this way. Thank you.
094	I subsistence fish every year here and it is very important to me.
095	Maximum group size 10.
096	The only negative part of this trip was the visitation of Fish and Wildlife observers. We were only on a day visit and the majority of the time we were on the river we were observed. The only people we saw were the two US Fish and Wildlife observers. They were nice people and non-threatening, however we visit the river for peace and quiet and good fishing. It was annoying to have 2 people drive there raft and outboard to where you are fishing and stay with you talking, talking, talking the entire time we were there.
096	Maximum length of stay 4 days.
097	Rangers did excellent job of shotgun cracker shells to keep bears away.
097	"If unlimited numbers of visitors continue, need to establish some kind of latrine. Thanks"

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<u>Interview #</u>	<u>Comment(s)</u>
097	I would like to see some type of lottery, like the cabins, to help insure a wilderness experience! Also the "money" generated could be used for outdoor toilet and improvement of camping areas. Also money for stream or river work/ improvements and etc.
098	"I did not appreciate competing with a jet skiff to compete for fishing holes. It would seem that there should be some way to level the playing field. Having to compete with commercial interest did not leave a positive memory. I would suggest rather than limiting size per say, possibly schedule certain sections."
098	Davy Jones is too close to the Bare Creek camping area. His guests take over all the holes closest to the camping area.
099	I love coming here and appreciate the efforts to maintain its pristine nature.
099	"I have been on the Ayakulik prior to the voluntary camping policy. The present system has improved my enjoyment. Previously people camped right on some of the best fishing locations, limiting access to others. I think the present voluntary system should be made mandatory. No camping within 50ft of the river edge. Move the camping at the Boulder hole far enough back from the river to allow fly fishing. Keep the area on the stream bank clear."
099	"By making the access to the Ayakulik area by air limits the traveling to the area. Hiking and roads to the area limit the number of people. Consideration for bear access to the water edge. Camps should be at least 75ft from water."
100	No eggs! Except on last day of trip.
100	Lots of fun.
100	"I can't see changing anything. Everything was just as I expected. The game people were kind, helpful and went out of there way to help us and give us knowledge on the bears, fish and other wildlife. Thank you, keep it the same."
101	Maximum length of stay 2 days.
101	Maximum length of stay 3 days. Outstanding location. Do not let it be overrun. Control access to those who demonstrate responsibility.
102	Sockeye fishing on the fly was great. Although first very apprehensive about close encounters with bears, I found the experience one of the highlights of my life. I also gained great respect for our guide and his interactions with the bears.
103	Maximum group size 3.Maximum length of stay 3 days. The use of airboats and motorized boats/ rafts is highly objectionable. It impacts "peace & quiet," physically disrupts fishing particular holes, and seems totally unnecessary given the ease of walking along the banks of this river. The turbulence and wakes produced by such conveyance disrupts the fish in holes and some quiet water. I realize that the takeoff and landings of aircraft produce the same effect, but the area is limited.

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<u>Interview #</u>	<u>Comment(s)</u>
146	The total experience was wonderful. If this area could be preserved as is, I would be very pleased for future trips.
146	Few people would provide the appropriate level of balance between environmental concerns and fishing that Dave Jones provides. He is adamant about respecting the environment, almost to the point of being irritating, which is probably perfect. Seldom have I been as conscientious as I have been on this stream! Dave Jones respects and demands others respect for this environment. This is our 6th trip to Kodiak, or first to visit here.
146	Wonderful place to visit. Regulations have made this a great experience of wilderness camping.
146	"I have always felt like a spectator amongst wildlife. Here I feel like a person experiencing wildlife. The most striking difference is the lack of people and the dedication of the people here to experience what I do; they want to view wildlife as much as I do. Here is a very, very special place."
200	Our trip to the Ayakulik is for subsistence purposes, not sport. When the weather and our schedules allow for us to get down there, we want to be able to go. If there are date restrictions like now on the Karluk, we can not always get down there at our appointed dates, so a year, or years may go by without getting any kings put up. I am strongly in favor of no limitations.
200	I would like to see you not do to the Ayakulik what you have done to the Karluk. I want to be able to go when I am able to go - not to be limited to particular dates. I would like to see no limits set on any aspect of time spent on any of our rivers.

**APPENDIX E. ATTRIBUTES OF AYAKULIK RIVER
VISITORS, 1986-2002**

Appendix E1.-Attributes of Ayakulik River visitors documented by the staff from the Kodiak National Wildlife Refuge between 1986 and 1995 and interviewed at the ADF&G weir between 1995 and 2002.

Year	Visitors				Visitor residency								Total visitors	
	Guided		Unguided		Alaskan				Non-Alaskan					
	Number	Percent	Number	Percent	Kodiak		Other Alaska		United States		Aliens		Number	Percent
					Number	Percent	Number	Percent	Number	Percent	Number	Percent		
1986 ^a	39	39	60	#REF!	NA	-	38 ^b	38	61	62	0	-	99	100
1987 ^c	NA	-	NA	-	NA	-	47 ^d	46	41	40	14	14	102	100
1988														
1989														
1990														
1991 ^c	26	22	93	78	50	42	15	13	54	45	0	-	119	100
1992 ^f	222	62	136	38	NA	-	NA	-	NA	-	NA	-	NA	-
1993 ^g	~75	~20	~301	~80	NA	-	NA	-	NA	-	NA	-	NA	-
1994 ^h	~75	~16	~405	~84	NA	-	NA	-	NA	-	NA	-	NA	-
1995 ⁱ	~76	~26	~217	~74	NA	-	NA	-	NA	-	NA	-	NA	-
1996														
1997														
1998 ^j	55 ^k	92	5 ^k	8	NA	-	16 ^l	20	63 ^m	80	NA	-	79	100
1999 ⁿ	47	64	26	36	NA	-	48	66	25 ^m	34	NA	-	73	100
2000 ^o	67	46	78	54	12	8	28	19	92	63	13	9	145	100
2001 ^p	55	36	97	64	27	17	16	10	91	58	23	15	157	100
2002 ^q	86	43	112	57	24	12	24	12	122	62	28	14	198	100

Note: Visitor attribute data do not necessarily represent all visitors for the Chinook salmon fishery each year; the data only reflect visitors who were surveyed. “n/a” = not available. “-“ = value can’t be computed due to limitations of the data.

^a Jones and Selinger (1986) reported results of KNWR visitor census which included verbal interviews conducted at Bare Creek between June 9 and July 7 and tabulated results from written interview forms collected postseason or at the ADF&G weir from downriver visitors.

^b Includes all Alaska residents contacted.

^c Handler and Selinger (1987) reported results of KNWR visitor census which included verbal interviews conducted at Bare Creek between June 9 and July 7 and tabulated results from written interview forms collected postseason or at the ADF&G weir from downriver visitors.

^d Includes all Alaska residents contacted during the study period.

^e Johnson (1991) reported results of KNWR visitor census which included verbal interviews conducted at Bare Creek between June 10 and July 1.

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- ^f Squibb (1992) reported results of KNWR visitor study which included daily observations of users and verbal interviews conducted at Bare Creek and the ADF&G weir between June 8 and July 6.
- ^g Squibb (1995) reported results of KNWR visitor study which included daily observations of users and verbal interviews conducted at Bare Creek and the ADF&G weir between June 8 and July 6; numbers of guided and unguided visitors estimated from total visitor days
- ^h Squibb (1995) reported results of KNWR visitor study which included daily observations of users and verbal interviews conducted at Bare Creek and the ADF&G weir between May 27 and July 11; numbers of guided and unguided visitors estimated from total visitor days.
- ⁱ Squibb (1995) reported results of KNWR visitor study which included daily observations of users and verbal interviews conducted at Bare Creek from June 9-30; numbers of guided and unguided visitors estimated from total visitor days.
- ^j Source ADF&G Division of Sport Fish RTS angler interview database; results of verbal interviews conducted at the ADF&G weir between May 28 and July 7, 1998.
- ^k Visitor status not recorded at weir. Represents only visitors to Ayakulik Lodge.
- ^l Includes all Alaska residents contacted.
- ^m Includes all non-Alaska residents contacted.
- ⁿ Source ADF&G Division of Sport Fish RTS angler interview database; results of verbal interviews conducted at the ADF&G weir between May 26 and July 8, 1999.
- ^o Source ADF&G Division of Sport Fish RTS angler interview database; results of verbal interviews conducted at the ADF&G weir between June 2 and July 20, 2000.
- ^p Source ADF&G Division of Sport Fish RTS angler interview database; results of verbal interviews conducted at the ADF&G weir between May 29 and July 19, 2001.
- ^q Source ADF&G Division of Sport Fish RTS angler interview database; results of verbal interviews conducted at the ADF&G weir between May 31 and July 12, 2002.

**APPENDIX F. KODIAK NATIONAL WILDLIFE REFUGE
AIR TRANSPORTATION RECORDS AND GUIDE REPORTS
FOR AYAKULIK RIVER, 1998-2002**

Appendix F1.-Kodiak National Wildlife Refuge air transporter records and guide reports for the Ayakulik River between June 1 and July 7, 1998–2002.

Date	1998			1999			2000			2001			2002			5 Yr. Avg. Total Visitors
	Unguided Visitors	Guided Visitors	Total Visitors													
1-Jun	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
2-Jun	0	4	4	0	0	0	4	0	4	3	0	3	0	0	0	2
3-Jun	0	7	7	0	0	0	4	0	4	3	1	4	4	5	9	5
4-Jun	0	5	5	2	0	2	7	2	9	3	1	4	6	5	11	6
5-Jun	4	4	8	0	4	4	5	0	5	4	1	5	8	0	8	6
6-Jun	4	9	13	0	10	10	5	0	5	8	0	8	39	0	39	15
7-Jun	8	3	11	0	10	10	5	0	5	17	6	23	65	0	65	23
8-Jun	4	3	7	0	10	10	10	0	10	30	6	36	74	6	80	29
9-Jun	12	3	15	0	18	18	21	7	28	37	10	47	75	3	78	37
10-Jun	25	3	28	8	12	20	43	10	53	45	8	53	80	4	84	48
11-Jun	37	3	40	18	12	30	47	11	58	40	4	44	85	0	85	51
12-Jun	42	7	49	29	12	41	56	11	67	44	4	48	69	2	71	55
13-Jun	53	4	57	29	12	41	69	11	80	34	10	44	65	6	71	59
14-Jun	45	13	58	29	12	41	75	11	86	39	12	51	51	10	61	59
15-Jun	34	13	47	33	12	45	81	11	92	36	12	48	53	10	63	59
16-Jun	37	13	50	38	22	60	76	14	90	35	14	49	33	10	43	58
17-Jun	39	18	57	38	22	60	69	14	83	24	14	38	26	14	40	56
18-Jun	22	13	35	29	21	50	59	14	73	24	9	33	37	14	51	48
19-Jun	18	9	27	28	21	49	54	17	71	12	12	24	30	14	44	43
20-Jun	11	13	24	25	21	46	42	14	56	12	13	25	30	10	40	38
21-Jun	16	13	29	28	12	40	38	19	57	11	9	20	30	9	39	37
22-Jun	22	14	36	20	12	32	23	13	36	5	9	14	31	15	46	33
23-Jun	24	13	37	24	12	36	26	13	39	5	15	20	25	9	34	33
24-Jun	22	13	35	25	12	37	20	19	39	18	14	32	29	3	32	35
25-Jun	20	9	29	28	16	44	24	19	43	8	18	26	29	9	38	36
26-Jun	13	9	22	24	20	44	17	12	29	5	19	24	29	9	38	31
27-Jun	11	14	25	26	18	44	17	20	37	5	17	22	23	9	32	32
28-Jun	14	14	28	16	16	32	8	25	33	5	10	15	15	10	25	27
29-Jun	8	10	18	16	15	31	10	25	35	4	10	14	7	10	17	23
30-Jun	11	10	21	7	16	23	2	23	25	8	13	21	3	10	13	21
1-Jul	14	10	24	7	11	18	6	12	18	8	14	22	3	14	17	20
2-Jul	8	12	20	3	11	14	6	18	24	12	17	29	3	14	17	21
3-Jul	7	12	19	3	15	18	6	14	20	6	14	20	3	14	17	19
4-Jul	7	13	20	3	17	20	4	14	18	6	17	23	0	10	10	18
5-Jul	9	13	22	3	17	20	9	14	23	6	11	17	0	10	10	18
6-Jul	5	13	18	3	17	20	5	14	19	4	10	14	0	10	10	16
7-Jul	2	13	15	0	12	12	5	14	19	0	11	11	3	10	13	14
Daily Avg.	16	10	26	15	13	28	26	12	38	15	10	25	29	8	37	31

Note: Includes only guided and unguided visitors within the boundaries of the Kodiak National Wildlife Refuge; does not include unguided visitors within the Refuge boundaries who accessed the river via private aircraft, and unguided and guided visitors who remained on private property near the lagoon while accessing and exiting the fishery.