

Final
Report.

**UNDERSTANDING THE HUMAN DIMENSIONS OF RECREATIONAL
FISHING IN BIG CREEK, FRANK CHURCH WILDERNESS OF IDAHO.**

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ABSTRACT

Intensive fishing by independent and/or outfitted anglers is increasingly seen on Big Creek, a tributary of the MFSR in Idaho. Most likely, heightened recreational use in this region is creating economic effects that are largely unreported as fishing research on Big Creek is limited and outdated. This report provides baseline information on the profile and motivations of Big Creek anglers and their subsequent economic impact on the area. The research methods consisted of (1) data collection through on-site interviews of 112 anglers. This research is built upon previous work and uses consistent question wording and response formats with known reliability and validity in order to be comparable to both past and future research.

INTRODUCTION AND BACKGROUND

Providing outdoor recreation opportunities is an important goal of rural development coordinators and resource managers. Furthermore, it is a fisheries manager's objective to provide anglers with quality recreation opportunities. However, understanding the diverse motivations of the angling public and monitoring public demand for diverse fish and wildlife services are among the greatest challenges facing fisheries and wildlife managers. Consequently, it has also been difficult for development coordinators and resource managers to gauge the effect angling has on local economies (Wright 1997).

It has long been established that a quality fishing experience involves many dimensions other than just catching fish (Hendee 1974, Driver 1977, Moeller and Enkelker, 1972). Others, notably Fedler and Ditton (1994), Kaltenborn & Aas (1995) and Sanyal and McLaughlin (1992) argue for identifying relevant subgroups of anglers by classifying them according to their consumptive orientation. A synopsis of over 100 motivation/satisfaction related studies (Sanyal and McLaughlin, 1992) shows that the needs for "escape" and for "experiencing nature" have consistently been rated as the most important motivational factors for anglers. A similar compilation of angler motivational research was presented by Fedler and Ditton (1994) who arrived at similar conclusions, and went on to suggest that future researchers need to use standard motive statements with consistent question wording and response formats in order to build upon previous work. They also stated that little more can be learned about angler motivations at a population level. Instead future research should focus on angling sub-populations on the basis of fishing mode and preferences.

Recognizing that the average angler does not exist, it makes little sense to continue to generate summary profiles of anglers when management policies must be tailored for particular fisheries and specific anglers (Graefe 1981). Future research must be focused on determining angler motivations of specific segments of anglers. Researching specific angler segments to determine

regional or site specific motivations will allow fishery managers and rural development coordinators to anticipate angler responses to specific changes in management plans and ensure fishing opportunities are provided to meet angler needs.

Study Area

Big Creek lies in the center of the Frank Church-River of No Return Wilderness in Central Idaho, the largest contiguous wilderness segment in the lower forty-eight states. Its wilderness section starts at the end of Forest Service Road 340 (FSR 340) after the town of Big Creek (pop. 60) and ends at its confluence in the Middle Fork of the Salmon River (MFSR). Big Creek is a refreshing escape from the pressures and tensions of life.

Recently, an influx of outfitted and independent fishermen has been noted in Big Creek, and their numbers have been steadily rising for a number of years, but not much is known about the anglers' background or motivations for fishing. For certain, the majority of anglers, either independent or guided, arrive to the area by plane from McCall, Cascade, Salmon, and Boise' hiking in from the Big Creek trailhead; or floating down the MFSR.

Problem being Addressed and Justification

Fisheries and wildlife managers, rural development coordinators, and undoubtedly the Wilderness management agency (USFS) need to be aware of and have baseline information on the Big Creek angling public. Recreationists are not a static segment. Demographics, motivations and expectations behind fishing are in constant fluctuation; therefore information on today's anglers is more relevant to decision-making than yesterday's information.

During the past thirty years many studies have been conducted on the concepts of multiple motivations/satisfactions and how they relate to anglers. Early research illustrated how the motivations of anglers were extremely diverse (Knopf, et al 1973; Hendee 1974) and established that much research was needed to fully understand this heterogeneous group of recreationists. The general finding of all the research that followed recognized that anglers are motivated by a "package" of dimensions other than traditional catch success. In order to determine the future economic and ecological effects created by Big Creek anglers, it was crucial to first understand and analyze their motivations in reaching isolated locations as well as their profile.

RESEARCH OBJECTIVES

This study (1) identified the profile and specific motivations of Big Creek anglers in order to understand the economic potential of the activity, enabling (2) Taylor Ranch and USFS to utilize the findings in future ecosystem and recreational management.

Specific research tasks accomplished to achieve this objective are:

1. Identification of key demographic information on Big Creek anglers.
2. Location of the origins (home residence) and main access points (trailheads and airstrips) from which anglers reach Big Creek.

3. Identification and measurement of key dimensions of motivations important to Big Creek anglers.
4. Estimation of revenues going into the area thru the outfitting of fishing guides and equipment.

RESEARCH METHODS

Data Collection

This research is built upon previous work (Driver & Knopf 1976; Sanyal and McLaughlin, 1992) and uses consistent question wording and response formats with known reliability and validity in order to be comparable to both past and future research.

To perform the specific tasks (1-4) listed above; surveys of 112 anglers in the Big Creek drainage were taken using on-site interviews (Appendix A). The survey had 24 questions and was designed to obtain answers to the following research questions:

1. What are the demographics of Big Creek anglers?
2. In regards to how much money is spent by the anglers; what is the economic impact on the area?
3. What are the primary motivations behind fishing in Big Creek?
4. What is the turnover rate of anglers in Big Creek, i.e. how likely will they be coming back and how often?
5. How important is catching fish for Big Creek anglers?
6. What are their origins and what are the major travel modes to and within Big Creek?

Questionnaires were designed using the Total Design Method (Dillman 1978; Dillman 2001; Salant & Dillman, 1984). The questionnaire includes several different types of response formats (close-ended with ordered and unordered choices, partially closed ended, and open ended). Response formats for all interval scales constructed using proven magnitude estimators (Bass et al 1974). This ensured that all interval measures are true equal interval scales and that the data can be analyzed quantitatively, and the findings compared across sub-populations or with the findings of other studies such as Wright's (1997) using similar scale development procedures.

Data was continuously collected during the summer of 2004 from July 2nd through August 16th and on September 12th through the 15th. Anglers were surveyed at their campsites, either prior to or immediately after fishing, no angler was disturbed while fishing. Because of the scarcity of anglers, no formal randomization scheme was implemented.

All groups were interviewed with identical instruments. Data was collected concerning social characteristics, consumption orientation, and motivations for fishing at Big Creek. Social characteristics such as age, income, place of residency, educational background, and days fished per year, along with dimensions of motivation such as social skills, equipment, personal values, consumption, and solitude were used to describe anglers in the sample and to help explain differences within the sample. Income and involvement (number of days fished per year, number of modes and forms of fishing participated in, and participation in fishing related activities) were measured as categorical variables.

Data Analysis

To quantify the consumptive orientation of anglers, agreement responses to statements on the importance of catching, keeping and eating fish will be combined to form a scale (Fedler and Ditton, 1986). These three items are patterned after motivational work by Driver (1976) and Driver and Knopf (1976), and further refined by Graefe (1981). The three items elicit responses on a five point scale ranging from strongly disagree to strongly agree and a summated score will be calculated from the responses to the three items. Summated consumptive scores will range from 3 to 15, and anglers with scores ranging from 3 through 7 will be classified as having low-consumptive orientation. Anglers with scores ranging from 8 through 11 will be classified as having mid-consumptive orientation, and anglers with scores from 12 through 15 will be classified with high consumptive orientation. Regardless of the denomination of the stream (i.e. catch and release, or possession limits) these motivations are still of high value in determining angler recreational satisfaction.

To quantify motivational dimensions, items patterned after motivation work by Driver and Brown (1975) will be used. These specific dimensions were selected because they consistently varied in past research. Rosenthal et al (1982) explored the construct validity of instruments used in measuring recreationists' preferences and determined that the Recreation Experience Scales designed by Driver (1977) were valid for measuring recreationists' preferences and suitable for continued use in recreation management and planning. The motivational items will be rated by each respondent using a 5-point interval scale ranging from "not important" to "extremely important" as a reason for fishing that day.

The responses formulated in the survey are presented immediately after their respective question. For instance, question one as it appeared in the original survey administered (See Appendix A) will be followed by its key findings, data tables, and graphs where applicable. Then question two will be presented with its own set of key findings, data tables, etc.

It was found necessary to report the results as they apply to each of the creek's main locations:

Location 1: Starts at Big Creek trailhead and ends at Copper Camp. This stretch includes the sampling locations of Beaver Creek and Gold Creek. In this stretch 29 surveys were conducted and anglers either arrived by private automobile driving on FSR 340 to the trailhead or were flown into Big Creek landing strip and hiked from there.

Location 2: Starts after Copper Camp and ends at the eastern-most side of Cabin Creek Meadow. This stretch includes the sampling locations of Vines Airstrip, Doe Creek, Cave Creek, Cabin Airstrip, and Canyon Creek. In this stretch 50 surveys were conducted and anglers mostly arrived either by private or commercial plane to the Vine or Cabin airstrips. Two exceptions to this rule were: 1) a group of three anglers that had driven to the trailhead, hiked down and were picked up at Cabin airstrip where they were sampled and 2) a group of four kayakers put in before Beaver Creek and were sampled in Cabin Creek Meadow.

Location 3: Starts after Cabin Creek Meadow and ends at the confluence of Big Creek and the MFSR. This stretch includes the sampling locations of Taylor Ranch and Bighorn Bridge. In this stretch 30 surveys were conducted and anglers either arrived by private or commercial plane or by private or commercial raft, kayak, cataraft, or dory as they floated down the MFSR.

For a graphical representation of locations 1, 2, 3 please refer to Appendix B

RESULTS AND DISCUSSION

1. What kind of fishing do you usually engage in? *(Please check as many as apply)*

- | | |
|---------------------------------------|--|
| <input type="checkbox"/> SPIN FISHING | <input type="checkbox"/> FISHING FROM A BOAT OR RAFT |
| <input type="checkbox"/> FLY-FISHING | <input type="checkbox"/> SHORE FISHING |
| <input type="checkbox"/> BAIT FISHING | <input type="checkbox"/> FLOAT TUBE |

Key Findings: Anglers in Location 1 practiced more shore-fishing than in the other two locations. The modalities least practiced were bait-fishing (Locations 1 and 2) and float-fishing (Location 2). Bait-fishing and boat-fishing were considerably more prevalent in anglers from Location 3. Over 80% of anglers across all locations usually engage in fly-fishing. Note that percentages in a column do not add up to 100% given that the question allowed for checking as many responses as it was applicable.

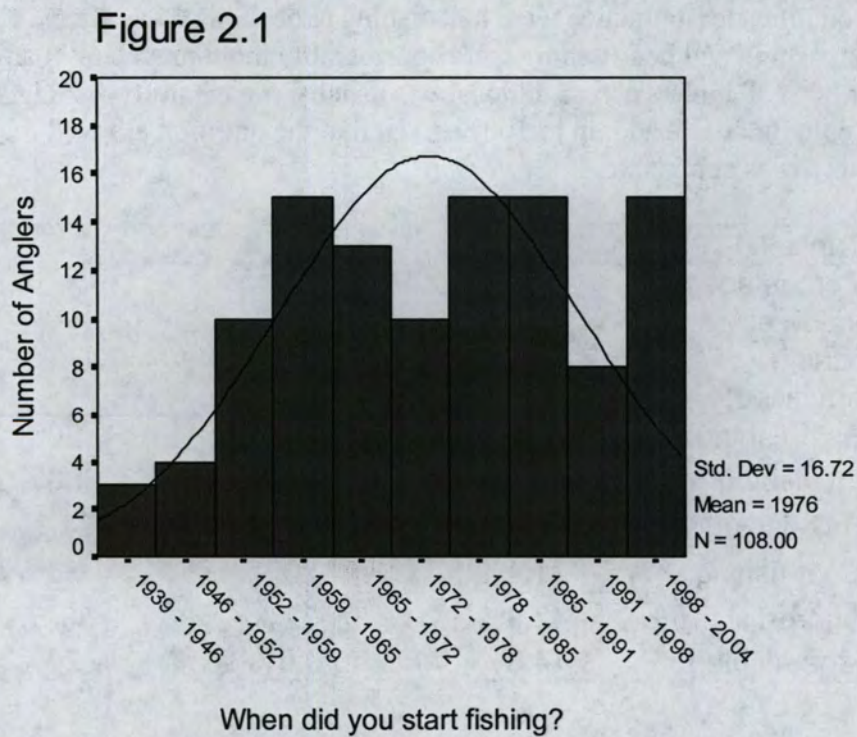
Percentage of mode of fishing practiced:	Location 1	Location 2	Location 3
Spin-fishing	28.6%	20%	20%
Fly-fishing	89.3%	82%	80%
Bait-fishing	3.6%	8.0%	23.3%
Boat-fishing	21.4%	20%	53%
Shore-fishing	42.9%	32%	33.3%
Float-fishing	14.3%	8.0%	20%

2. When did you first start fishing? (Please write in the year)

YEAR I STARTED FISHING _____

Key findings: Location 1 and 3 anglers started fishing later than Location 2 anglers. The mean year in which Big Creek anglers started fishing is 1976 (n=108). One-fourth of the sample started fishing before 1960 while only 6% started fishing after the year 2000.

	Location 1	Location 2	Location 3
Mean Year I started fishing	1982	1974	1984
Minimum year	1950	1939	1940
Maximum year	2002	2004	2004



3. About how many days do you spend fishing each year? (*Please check one*)

1 — 3 DAYS A YEAR

21 — 30 DAYS A YEAR

4 — 10 DAYS A YEAR

31 OR MORE DAYS A YEAR

11 — 20 DAYS A YEAR

Key Findings: The majority of Location 1 and 3 anglers (27.6% and 32.3% respectively) fished between 11-20 days per year. In Location 2 the majority (32%) fished less than in Location 1, between 4-10 days per year. Across the three locations, anglers fished an average of 11-20 days per year. Only 6.3% of the total sample fished 1-3 days per year and a substantial 21.6% fished 31 or more days per year

Table 3.1

Mode of days fished per year	3	2	3
	n=29	n=50	n=32
	2=4-10 days per year 3=11-20 days per year, 4=21-30 days per year		

4. How did you get to Big Creek for this trip? (*Please check all that apply*)

PRIVATE PLANE

HORSEBACK

PRIVATE VEHICLE

HIKE

COMMERCIAL PLANE

RAFT/KAYAK

Key findings: In Location 1, the main transportation mode into Big Creek was by private automobile, accounting for 75.9% of the sample, followed by 37.9% that hiked at some point of their trip to reach the trailhead. In Location 2, 94% arrived by flying at one point in time, 44% with their own plane and 50% through a commercial flier. In Location 3 the predominant transportation mode to access Big Creek was through rafts, accounting for almost two-thirds of the sample. Across locations, the main transportation mode was the use of commercial and privately owned planes, then followed by private vehicles, and lastly through rafts. Using horses as a mode of access to Big Creek was minimal (n=2). Note that percentages in a column do not add up to 100% given that the question allowed for checking as many responses as it was applicable.

Table 4.1

Percentage of those who arrived by:	Location 1	Location 2	Location 3	Whole Sample (n=112)
Private Plane	3.4%	44%	6.3%	23.2%
Private Vehicle	75.9%	14%	6.3%	27.7%
Commercial Plane	0%	50%	28.1%	30.4%
Horse	0%	2%	3.1%	1.8%
Hike	37.9%	8%	15.6%	17.9%
Raft	0%	6%	65.6%	21.4%

5. If you arrived by plane, what airstrip did you fly in from? *(Please write in the name)*
 I flew in from _____

Key findings: This question sought as an answer the last airstrip anglers took off from before landing in Big Creek. In Location 1, private flyers flew in from Cottonwood, ID and Yakima, WA to land at Big Creek airstrip. In Location 2, half of the anglers arrived via McCall, and 12.8% via Cascade. In Location 3, 50% of anglers arriving at Taylor Ranch airstrip came via Cascade, one flew from Salmon, another from Boise, and another from Stanley. Of the anglers that floated to the mouth of Big Creek, six had had their rafting equipment flown in from Indian Creek (n=3), Stanley (n=1), and Cascade (n=2). Across locations, the majority of anglers arrived from McCall at 38.1%, followed by Cascade at 20.6%.

Table 5.1

Percentage of those flying from:	Location 1 (n=2)	Location 2 (n=47)	Location 3 (n=14)	Whole Sample (n=63)
Big Creek	0	2.1	0	1.6
Boise	0	0	7.1%	1.6
Cascade	0	12.8%	50%	20.6
Cottonwood	50%	0	0	1.6
Flying B	0	8.5%	0	6.4
Indian Creek	0	0	21.4%	4.8
Johnson Creek	0	2.1%	0	1.6
McCall	0	51%	0	38.1
Salmon	0	15%	7.1%	12.7
Seattle	0	6.4%	0	4.8
Stanley	0	0	14.3%	3.2
Yakima	50%	0	0	1.6

6. Excluding travel from your home to the Big Creek, how did you travel around within this area?

TRAVEL MODE

How often did you use each travel mode in the Big Creek area?
(Please circle one response for each travel mode)

On foot	ALWAYS	VERY OFTEN	FAIRLY OFTEN	OCCASIONALLY	NEVER
On horse back	ALWAYS	VERY OFTEN	FAIRLY OFTEN	OCCASIONALLY	NEVER
Boat/float tube	ALWAYS	VERY OFTEN	FAIRLY OFTEN	OCCASIONALLY	NEVER
Backcountry plane	Always	VERY OFTEN	FAIRLY OFTEN	OCCASIONALLY	NEVER

Key findings: In Location 1, the sole travel mode was on foot. In Location 2, the primary travel mode was on foot, followed by plane, in which 34% of respondents circling "always," "very often," or "fairly often" as an answer. The only groups of boaters interviewed in Location 2 were four kayakers fishing down Big Creek. Their answers showed that they floated "always" to "fairly often." In Location 3, the predominant mode of travel was by boat, followed by on foot. Across locations, the main mode of travel was on foot, with 77% of anglers answering at least "fairly often."

Table 6.1

Mean of travel mode in Big Creek:	Location 1	Location 2	Location 3	Whole Sample (n=112)
Foot	1.1	1.9	3.4	2.1
Horse	5	4.8	4.6	4.8
Boat	5	4.8	2.5	4.3
Plane	5	3.5	4.6	4.3

1=always, 2=very often, 3=fairly often, 4=occasionally, 5=never

7. About how far from your entry point (base camp) did you travel up and down Big Creek as you fished? (*Please write in your answer*)

_____ MILES

8. How long did you or do you plan to fish on Big Creek this trip? (*Please write in the number of days*)

_____ Days

Key findings for questions 7 and 8: In Location 1, the mean numbers of miles walked as anglers fished up and down Big Creek were 8.7 miles, with a median of 5.5 miles. The majority of anglers in Location 1 (65%) walked at least 8 miles while their fished, the round-trip distance it takes to get from the trailhead to Beaver Creek. In Location 2, the mean number was 9.2 and the median 5 miles. In Location 3, 75% of the sample walked a mile or less, roughly the distance it takes to walk from the mouth up to Bighorn Bridge and back. Across all three locations only 8% had walked more than 30 miles.

The most amount of time spent fishing without counting Location's 2 Canyon Creek outfitters and Taylor Ranch interns was 10 days in Location 1. The least amount of time was spent in Location 3—0.5 day, occurring 34.4% of the time. In all, anglers fished a median of three days in Big Creek.

Table 8.1

	Location 1	Location 2	Location 3	Whole Sample (n=112)
Mean number miles walked:	8.7	9.2	2.8	7.1
Median number miles walked:	5.5	5	1	5
Mean fishing days in Big Creek:	3.6	8.74 ¹	8.39 ²	3.2
Median fishing days in Big Creek:	3.5	3	0.5	3

¹ influenced by Canyon Creek outfitters, ² influenced by Taylor Ranch interns

9. Below is a list of possible reasons for fishing. Please tell us how important each one is to you as a reason to fish here today.

11. People fish for many reasons. **IN GENERAL**, how important are catching, keeping and eating fish to you? For each of the following statements about catching fish please tell us how strongly you agree or disagree?

Note 1: For the associated lists of questions 9 and 11, please refer to the survey instrument in Appendix A.

Note 2: Given that much of the analysis for questions 9 and 11 was similar, their results will be presented in conjunction.

Key Findings for questions 9 and 11:

MOTIVATIONS (DESIRED EXPERIENCES)

A growing literature suggests that angler motivation and satisfaction are objective constructs and influenced by more variables than catch success and characteristics. These studies explicitly recognize that people are motivated to act by the desire to fulfill several needs - tacit recognition of the multiple motivations/satisfactions notion. In terms of angling, these motivations are best represented by nine general dimensions of motivations that have been widely reported in the literature (Sanyal and McLaughlin 1992a):

1. Escape; relaxation; change
2. Nature; natural; wild
3. Solitude; introspection; privacy
4. Social opportunities
5. Skills; achievement
6. Challenge; thrill; excitement
7. Consumption; trophy

8. Explore; learn
9. Teach; control

The degree to which people are motivated to seek and find specific elements of the experience/environment has been the underlying paradigm of much angler behavior and market segmentation work. While it is tempting to isolate and focus on a single dimension, it is the unique packages made up of differing combinations of each dimension that best describes what motivates individual anglers, and what allows us to identify groups of anglers who share/seek similar needs. A synopsis of over a 100 pertinent empirical works (Sanyal and McLaughlin 1992a) highlighted the universal value of the need for escape (relaxation and change) and for nature (natural and wild settings) in motivating anglers. Not only have most studies included measures of these two dimensions, but most studies have also found these two to be the most important motivational factors for angling.

This suggests that focusing on the other, more variable components of the experience, may allow greater discrimination between types of anglers, and allow more precise measures of angler satisfaction. Furthermore, the term "angling" is excessively broad and fails to account for the diversity in motivations, behaviors, experiences and practices of the sport. Most researchers now accept, either tacitly or by implication, the notion of multiple dimensions of motivations for fishing (multiple satisfactions).

While the results of individual studies may not be directly comparable to each other because of differences in measurement and wording, the major dimensions of a "generalized" fishing experience appears to include the four domains: natural settings/nature appreciation, using skills and equipment, escape from work-time pressure, and the need/ability to be social. These four domains (components of the experience) have been arrived at through motivational, satisfaction and benefit studies using a variety of approaches and methodologies. They have also been equally well documented for other outdoor pursuits, notably hunting, backpacking, camping, and river running. Does this mean that they are so salient that documenting their presence is the social science equivalent of saying "fish need water?" (That they are not artifacts of survey procedures or researcher bias is borne out by the several studies using corroborative approaches—both closed- and open-ended-questions in the same survey).

This suggested two approaches. First, if they are indeed salient, then the next step is to adequately document the differing and specific needs of the different groups of anglers. This is the social science equivalent of determining the specific types of waters that individual species of fish need, and is the topic of this chapter. Second, if these domains are common to most outdoor pursuits, then what domains are unique to angling, that is, what does angling provide that other forms of recreation do not? Such segmentation, based on these "unique-to-angling" domains may prove a better and more meaningful way to type anglers.

The questionnaire for this study contained an inventory of 26 reasons why people might fish in Big Creek, Idaho. This inventory was based on the Recreation Experience Preference (REP) Scales developed by Driver (1977) and adapted for consumptive wildlife experiences (McLaughlin et al. 1989a and b, Sanyal et al. 1989, and Sanyal and McLaughlin 1990), and

modified following the work of Sanyal and McLaughlin (1994 a and b), Wright (1997) and Wright and Sanyal (1998).

Respondents for questions (9) and (11) were asked to indicate how important each reason for fishing was to them. The reasons why people fish can also be thought of in terms of the attributes anglers would like to experience during their participation, and their reasons can be considered components of quality fishing experiences.

At an aggregate level (Table 1) the most highly rated reasons were not harvest, catching, or other fish related attributes, but aspects of the more human/personal experiences of the sport such as the need to be able to escape, the need to be close to nature, to be in natural settings, to experience tranquility, social bonding and companionship.

Table 1 also compares the relative importance of the 26 reasons for fishing on Big Creek to aggregate data collected throughout Idaho by Sanyal (1994a). Two specific comparisons are offered. The first a measure of salience—the percentage of each sample who rated each item "quite" or "extremely important," and second the relative rank ordering of responses based on this percentage. Getting away from crowds is the prime reason for Big Creek anglers to fish there: Over 90% of the sample found it important enough for it to rank first. Conversely, only 1% of Big Creek anglers feel motivated by filling their daily catch limits. Big Creek seems to be typified by escape, closeness to nature and being with friends, when compared to the typical Idaho fishing experience (Table 1)

This list begins to form an answer basic to this study, namely, what are people doing when they fish. Thus it would be appropriate to think of a majority of active anglers as using fishing as the means to satisfy their need to escape from life's demands, to experiencing nature, tranquility, the excitement of fishing, bringing back memories, and to be with friends.

These 26 items, based on Driver's (1977) Recreation Experience Preference (REP) item pool, were assembled to provide a multi-attribute, multi-measure, empirically based segmentation of anglers to identify the broad range of angler experiences and markets offered in Idaho. These results show that there is considerable variation, not only in how active and inactive anglers value each attribute, but also within each sub-population. Ideally, such segmentation should be done with the largest sample possible to account for the maximum variation in the population. However, because we are treating active and inactive anglers as two separate populations in this case, and because each was asked to rate the reasons for fishing from two separate perspectives—active anglers from a present day perspective, while inactive anglers were instructed to recall preferences from a perspective that may be dimmed by as many as 5 years of non-fishing—we analyzed each sample separately. Fishing is an activity that should best be described in a multi-goal or multi-satisfaction perspective.

Table 1. Comparison of Big Creek anglers to Idaho anglers.

Motivations (Desired Experience)	Percent responding "Quite" or "Extremely" Important			
	Big Creek		Idaho	
	Rank	%	Rank	%
Getting away from crowds.	1	90.4	--	--
For the stimulation and excitement of fishing.	2	84.0	5	59.7
To be close to nature while I fish.	3	74.3	3	66.2
To get away from the usual demands of life while I am fishing.	4	72.1	1	77.7
Being with friends while I fish.	5	65.1	8	46.1
Learning more about the river or stream.	6	58.7	9	42.7
Catching <i>any</i> fish.	7	58.3	15	28.4
Developing close friendships with my fishing companions.	8	51.4	10	40.9
Testing my fishing abilities.	9	47.7	18	21.2
Seeing fish jump or rise.	10	46.2	14	30.7
Thinking about my personal values while I fish.	11	37.7	16	27.6
Being with my family while I fish.	12	36.9	7	51.1
Learning new fishing skills from others.	13	36.5	--	--
Fishing in this area because I am attached to it.	14	33.7	--	--
Learning more about fish.	15	31.7	12	36.1
Releasing or reducing some built-up tensions while I fish.	16	28.3	11	40.0
Testing and using my fishing equipment.	17	26.0	19	20.3
Developing personal spiritual values.	18	23.8	17	23.9
Sharing what I know about fishing with others.	19	22.3	20	19.7
Catching different kinds of fish.	20	17.6	23	18.2
Catching trophy fish.	21	15.4	22	19.1
Testing flies that I have tied.	22	13.6	--	--
To see if I could fish.	23	12.7	--	--
Showing others I can fish.	24	9.6	27	4.4
Competing against other anglers.	25	1.0	26	4.6
Filling my daily catch limits.	26	1.0	25	7.4

MARKET SEGMENTATION OF ACTIVE ANGLERS

The multiple goals of anglers were identified using principal components analysis (Factor analysis) with varimax rotation. Nine factors with eigenvalues greater than 1.0 and accounting for 69% of the variance in the data were identified (Table 2). Only items with factor loadings greater than .50 for a single factor were retained, reducing the chance that an item would load on more than one factor. Because of sample-size limitations, several of the 27 items were not used because their loadings were distributed across two or more factors. Reliability analysis produced Cronbach alpha coefficient (Cronbach 1951) ranging from .73 to .82 (Reliability was not determined for the single item scales). The remaining items were associated with these nine identifiable dimensions:

1. Developing personal values
2. Social bonding
3. Learning
4. Escape
5. Developing and using fishing skills
6. Trophy fishing
7. Equipment
8. Ability
9. Tension reduction

Table 2. Factor composition and statistics for Big Creek anglers.

Factor	Scale items	Factor loadings	Eigenvalue (% of variance)	Cronbach Alpha
<u>Develop personal values</u>			9.6%	.73
	Developing personal spiritual values.	.66		
	Catching any fish.	.63		
	Thinking about my personal values while I fish.	.61		
<u>Social bonding</u>			9.3%	.77
	Being with friends while I fish.	.9		
	Developing close friendships with my fishing companions.	.81		
<u>Learning</u>			7.5%	.78
	Learning more about fish.	.85		
	Learning more about the river, lake or stream.	.5		
<u>Escape</u>			6.4%	.81
	Getting away from the usual demands of life.	.77		
	Getting away from crowds	.64		
<u>Developing and using fishing skills</u>			6.2%	.82
	To see if I could fish.	.79		
	Learning new fishing skills from others.	.50		
<u>Trophy fishing</u>			5.5%	N/A
	Catching trophy fish	.97		
<u>Equipment</u>			5.2%	N/A
	Testing and using my fishing equipment.	.92		
<u>Ability</u>			4.7%	N/A
	Testing my fishing abilities.	.96		
<u>Tension reduction</u>			4.7%	N/A
	Releasing or reducing some built-up tensions while I fish.	.95		

The final factors - or scales - can be viewed as seven independent and homogenous dimensions that describe important components of angling. These dimensions are somewhat consistent with both common sense and past research (Sanyal and McLaughlin 1992a). It is important to remember that the factors are described by their constituent variables and not by the name that we have assigned each factor. For example, developing and using fishing skills is constructed from two variables, but it has nothing to do with the level of skill an individual angler may have or aspire to. Rather, it describes the affinity each angler has for seeing if they could fish and for learning new fishing skills from others.

CONSUMPTIVENESS

Historically fishing was part of a subsistence economy and fish were caught to eat; methods-of-take, motivations and benefits other than food were largely irrelevant. As angling emerged as a non-subsistence activity, first of the leisure class, and later of whole populations, the consideration of the many elements that make up sport fishing prompted managers, researchers, outdoor writers and even anglers themselves to place participants into groups based on how they fish, where they fish, and so forth (See Potter et al. 1973, Aas 1992, and Sanyal and McLaughlin 1992a for coverage of these papers).

Despite advances in our ability to segment anglers using various experience preference/motivation inventories, the conceptualization of anglers as a homogenous population in terms of their consumptive orientation persists. While it is tempting to isolate and focus on a single dimension, it is the unique packages made up of differing combinations of each dimension that best describes what motivates individual anglers, and what allows us to identify groups of anglers who seek similar needs. My review of the angler segmentation literature (Sanyal and McLaughlin 1992a) highlights the universal value of the need for *escape* (relaxation and change) and for *nature* (natural and wild settings) in motivating anglers. Not only have most studies included measures of these two dimensions, but most studies have also found these two to be the most important motivational factors. This suggests that focusing on the other less important and more variable components of the experience may allow greater distinction between types of anglers, and allow more discriminating measures of angler satisfaction.

While there is rather good agreement on the existence and nature of the multiple satisfactions of angling, the literature fails to successfully resolve the question of importance of catch relative to satisfaction. Even within the multi-satisfaction camp there are two major schools of thought about the role and importance of consumption. The first holds that catch is an unimportant part of the experience, and points to the evidence that shows the non-consumptive dimensions consistently being rated more important by anglers.

A second view is that it is the size and number of fish that are important. Stevens (1966) operationalized fishing quality as catch success. Weithman (1978) and Weithman and Anderson (1978) extended this notion to include the number of fish caught, fighting ability, eating quality, and species. Fedler et al. (1983) found that catching fish was the dominant satisfaction sought by Wyoming anglers, but the multiple satisfactions associated with fishing were affected by the other, secondary activities, engaged in while fishing. Braaten (1970) reported that Washington

anglers preferred fewer large fish over many small ones. In Idaho a majority of anglers indicated a preference for catching fewer, but larger trout (Gordon et al. 1969), while Duttweiler (1976) found that lake anglers preferred several medium sized fish to one large or many small ones. Finally, Graefe and Fedler (1986) cite evidence from Colorado, Michigan and Virginia where angling participation rates dropped significantly after catch-and-release and size restriction policies were implemented.

Two dichotomies have been proposed to foster a better understanding of the contributions of the often conflicting attributes of angling and hunting experiences - consumption and non-consumption and their relation to satisfaction. Weithman and Katti (1979) proposed a distinction between "fishing" (catch) and "the fishing trip," for angling that allowed satisfaction to be measured with greater accuracy. They found that fishing trips were rated differently from fishing. Hammit et al. (1989) offer the concepts of "the hunt" (harvest) and "the hunting experience". While a quality hunt may be most influenced by deer related variables such as population size and structure, these same variables have little influence on the satisfaction with the overall quality of the hunting experience.

A recent and most promising approach is proposed by Fedler and Ditton (1986) that measures the consumptive orientation of anglers. They have shown that unique differences in consumptive orientation exist among Texas saltwater boat anglers. Low consumptive anglers were found to prefer a more diverse set of outcomes and rated the other (non-catch related) aspects of fishing higher than did highly consumptive anglers. Low consumption orientation was also seen to be related to higher satisfaction and more frequent participation. They point that the greater variance in satisfaction typically reported for consumptive motives may provide a greater and more robust opportunity to explain satisfaction than the universally high satisfaction reported for non-catch variables. By measuring the specific affinity for catch across different segments of anglers they were able to show how satisfaction differed and was explainable. The consistent distinction of a population into high, medium and low consumption groups provided a useful means of analyzing an angler population on the basis of a managerially relevant concept. For example, the higher fish-trip satisfaction levels reported by low-consumptives can be attributed to the higher importance they place on the non-catch related motives. Escape, relaxation, natural settings are more easily attained on any given fishing trip than is catching one or many fish, or large fish. Thus, low consumptives should more consistently be satisfied with their fishing trip. It follows that this group should be less sensitive to management action such as reduced catch limits.

Fedler and Ditton (1986) conclude that consumptive orientation provides "a useful means of segmenting an angling population into managerially relevant groups" and suggest the replication of their scale to provide reliability for the instrument and to examine consumptiveness under differing management and policy regimes.

To quantify the consumptive orientation of Big Creek Idaho anglers, agreement responses to a set of three items on the importance of catching fish were combined to form a summated scale. The items (Table 3) are patterned after those validated by Fedler and Ditton (1986), and elicited responses ranging from (1) Strongly disagree to (5) Strongly agree, with (3) being neither agree nor disagree. Summated scores range from a low of three to a high of 15 (Figure 1). Anglers

with scores from 3 through 8 were classified as having a low consumptive orientation. Scores of 8 through 12 describe mid-consumptiveness, while anglers with scores of 13 through 15 were considered to have a high consumptive orientation.

The three consumptive orientation statements (Table 3) provide different measures of the importance anglers place on catching fish. Reliability statistics indicate that the three-item scale had good consistency within and between items, and that deleting any one of the items would have reduced the scale's reliability.

These three groups were also used as the basis for testing differences in attitudes toward keeping fish, number of fish caught, and trophy/challenge aspects of angling; and angler satisfaction (Table 4).

Item means and the distribution of responses indicate that Big Creek anglers hold views on the importance of catching fish that strongly suggests that consumptiveness is not a strongly motivating factor. Compared with other population that have been studied (Figure 2) Big Creek is by far the lowest consumptive group when compared to groups in Texas, Idaho, and Norway; similar only to anglers in SW Montana, and differing most from Idaho anglers in general.

The three fish-related variables (keeping fish, number of fish caught, and trophy/challenge aspects of angling) represent three a-priori dimensions of angling (Table 4). Anglers who place the least importance on catching fish (those with low consumptive orientation) also place the least importance on keeping fish, the number of fish caught and on the trophy/challenge aspects of the sport. Anglers with mid- or high-consumptive orientations placed greater importance on all nine items. The mean ratings of the items differed significantly between catch orientation, except for catching fish that are hard to catch and land. It is important to note that this item had the highest (most important) rating of all nine items. Differences between the mid- and the high-consumptive groups are less pronounced than between the low-orientation anglers and the other two.

Figure 1. Distribution of consumptiveness scores.

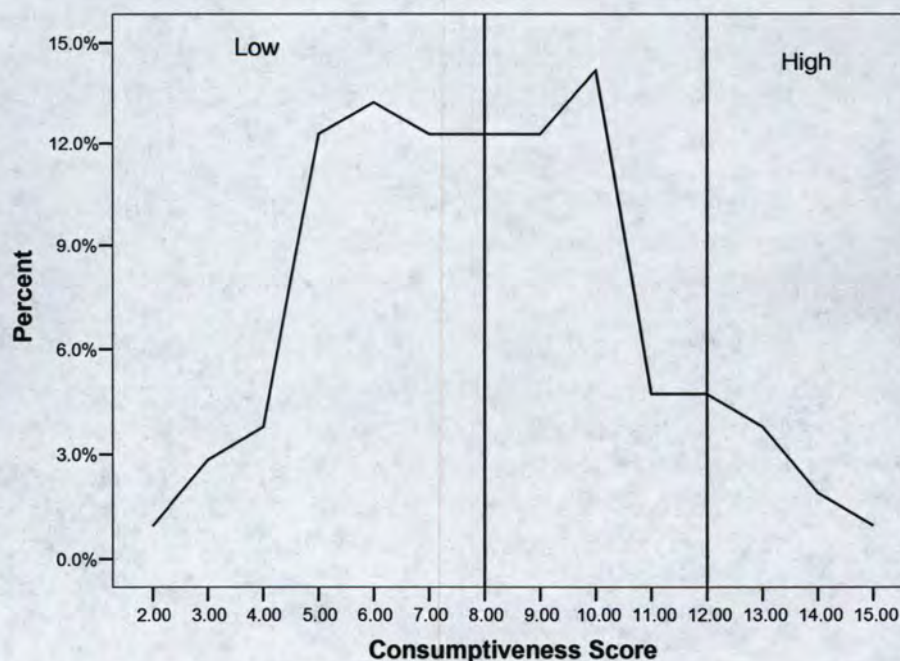


Table 3. Consumptive orientation scale item composition.

Scale item	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	n	Item mean	Corrected item-total correlation	Alpha if item deleted ¹
When I go fishing, I'm not satisfied unless I catch at least something ²	9.6	37.5	17.3	26.9	9.7	104	3.12	.429	.731
A fishing trip can be successful to me even if no fish are caught	10.4	30.2	19.8	34.0	5.7	104	2.97	.553	.578
When I go fishing, I'm just as happy if I don't catch a fish	37.7	38.7	12.3	9.4	1.9	104	2.00	.591	.519

1 Standardized Cronbach's alpha = .703

2 For the calculation of alpha, item responses were reserved due to the negative wording of this item

Figure 2. Comparison of consumptive orientation scores across studies.

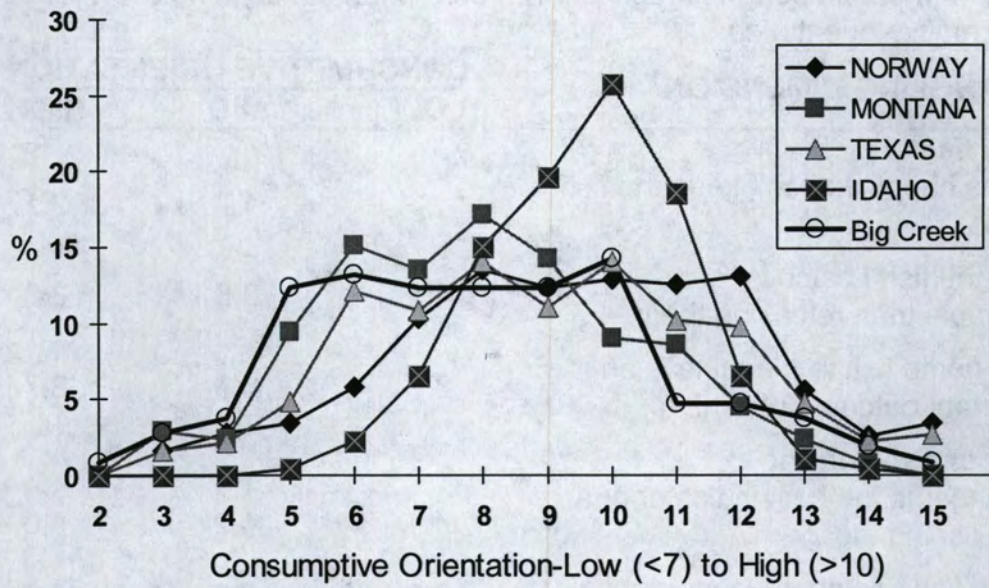


Table 4. Mean importance ratings for three a-priori dimensions of angling by consumptive orientation

ANGLING DIMENSION ¹	CONSUMPTIVE ORIENTATION		
	LOW	MID	HIGH
<i>Keeping fish</i>			
I'm just as happy if I don't keep the fish I catch	1.3	1.7	2.1
Keeping the fish I catch is more enjoyable than releasing them	4.2	3.8	3.8
Bringing home fish to the table is an important outcome of fishing	3.7	3.7	3.7
<i>Number of fish caught</i>			
A full stringer is the best indicator of a good fishing trip	4.1	4.2	4.0
The more fish I catch the happier I am	2.8	2.5	2.2
A successful fishing trip is one in which many fish are caught	2.9	2.3	1.8
<i>Trophy/Challenge</i>			
The bigger the fish I catch, the better the fishing trip	2.7	2.5	2.0
Catching trophy fish is the biggest reward to me	2.9	3.2	2.7
I'm happiest with a fishing trip if I catch fish that are hard to catch and land	2.0	1.9	2.0

¹ Response format ranges from (1) Strongly Agree to (5) Strongly Disagree

10. Over the last couple of years how often have you done each of the following?

	How often have you done each of the following? (Please circle one response for each item)			
Look at fishing equipment in stores or catalogues.	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Talk about fishing with my friends and family.	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Watch TV fishing programs	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Read fishing magazines	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Watch fishing videos	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Visit fishing Internet sites	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH

Key findings: There are no statistically significant differences at the 95% confidence level in the amount of time anglers spend in fishing related activities between the three locations. Across locations, Big Creek anglers talk about fishing with friends and family an average of "usually a few times each month." Looking at fishing equipment in stores and reading fishing magazines are both done on average "a few times a year." Big Creek anglers as a whole "never" look at fishing related videos or websites. Of the total sample, only 3.8% of respondents marked they had participated in all of the activities listed "usually a few times a month." Surprisingly, 38.4% of the total sample almost "never" participates in the activities. Just over 35% of anglers marked that they participated "a few times a year" in the activities, and only 12% of anglers participated "usually a few times each month" in any of the activities.

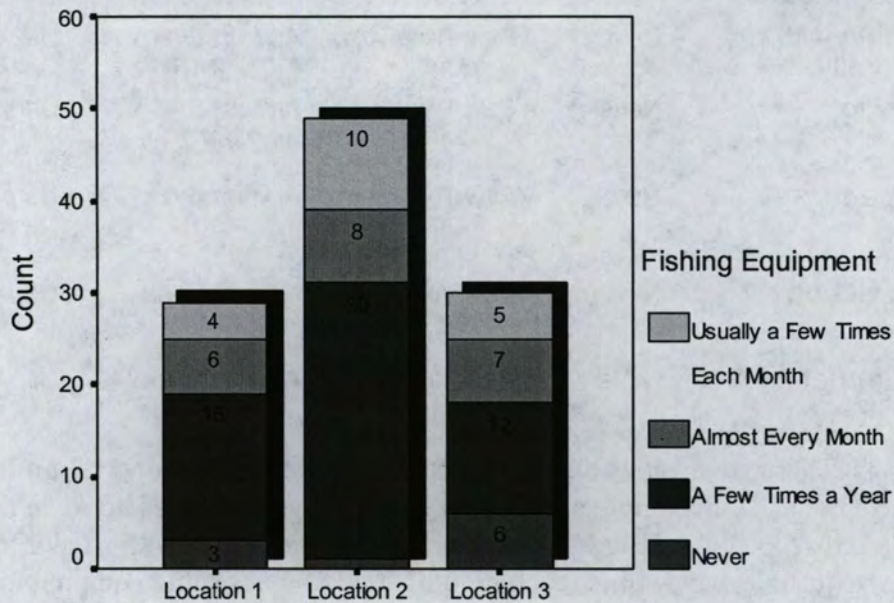
Table 10.1

Mean amount of time anglers:	Whole Sample (n=108)
Look at fishing equipment in stores	2.45
Talk about fishing with friends & family	2.89
Read fishing magazines	2.08
Watch fishing videos	1.49
Visit fishing websites	1.80
Watch TV fishing programs	2.01

1=Never, 2=Few Times a year, 3=Almost every month, 4=Few times a month

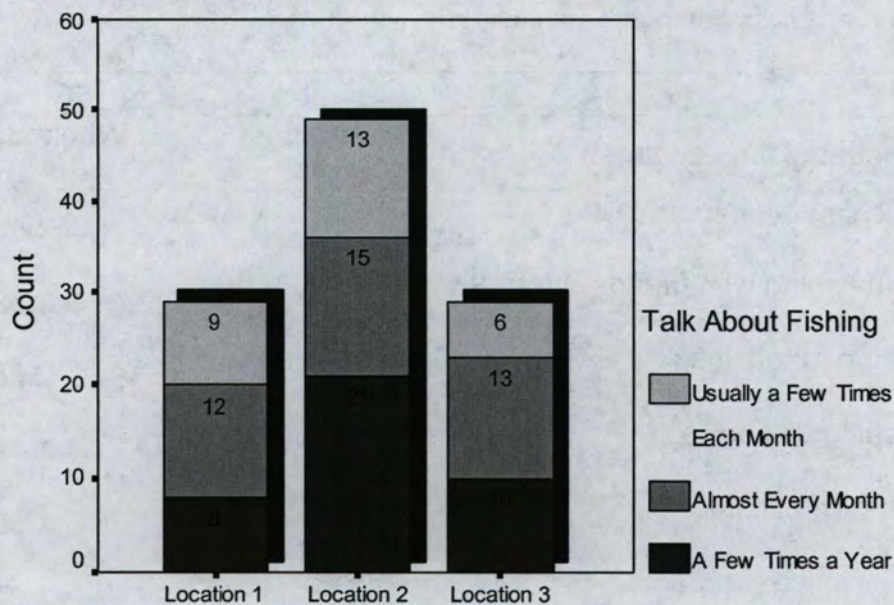
The following sets of graphs (10.1-10.6) depict the number of respondents that performed each of the fishing related activities according to the amount of time invested. In Location 1, 2, and 3, 29, 49, and 28 anglers filled out this question, respectively.

Figure 10.1



Look at fishing equipment in stores or catalogues

Figure 10.2



Talk about fishing with friends & family

Figure 10.3

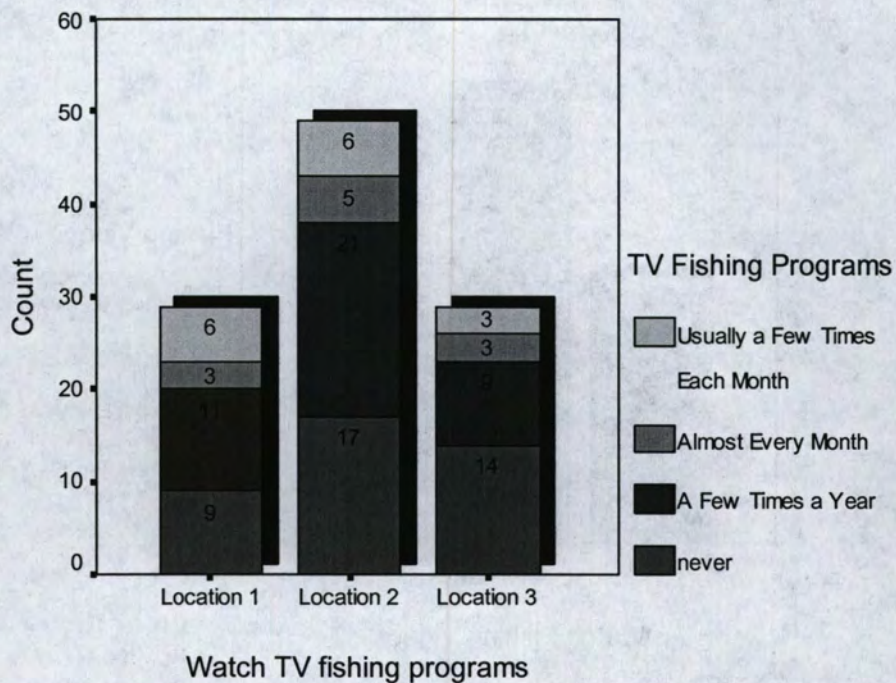


Figure 10.4

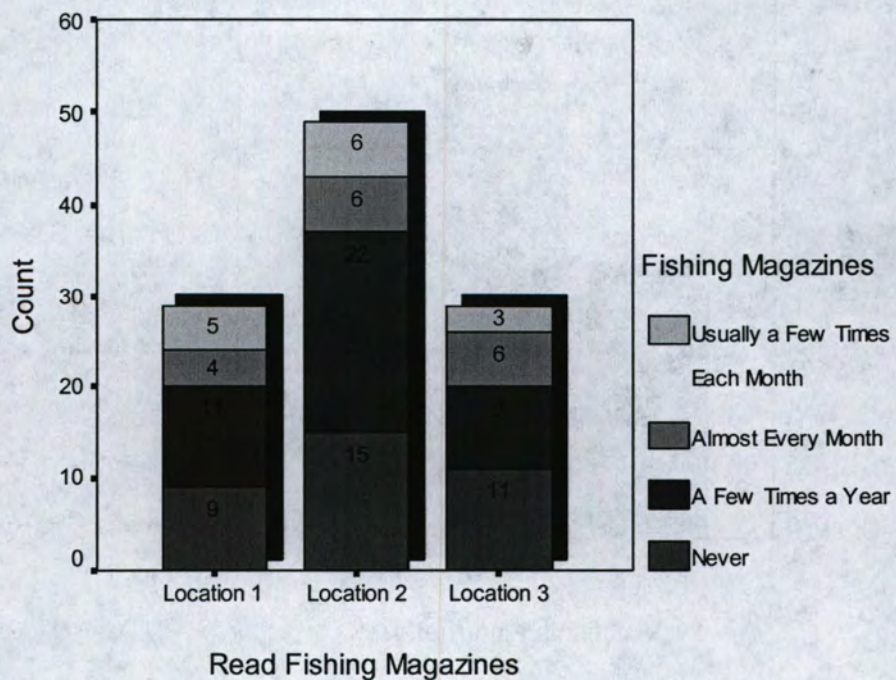


Figure 10.5

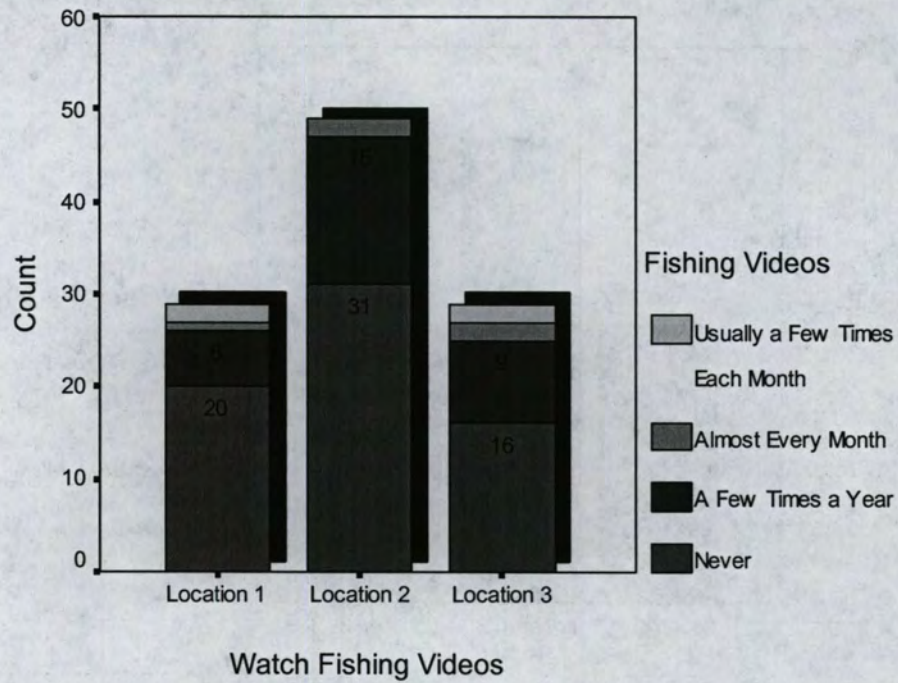
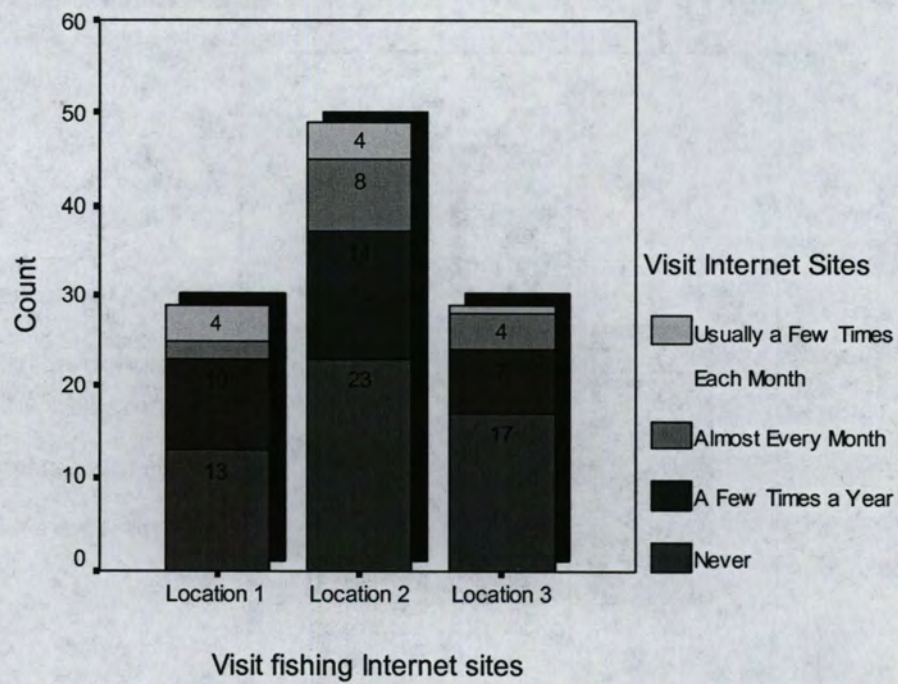


Figure 10.6



12. How would you evaluate your fishing experience on Big Creek on this trip? *(Please check one response)*

EXCELLENT (A)	GOOD (B)	FAIR (C)	POOR (D)	VERY POOR (F)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Key findings: In Location 1, the largest proportion of anglers (44.8%) thought fishing had been "good." Location 1 had also the biggest proportion of anglers that evaluated their experience as fair. In Locations 2, and 3 the largest proportion of anglers thought fishing had been "excellent" (65.3% and 58.1% respectively).

Across the creek's locations, over half of the anglers sampled rated their fishing experience as "excellent" and just over a third of the anglers rated it as "good." Surprisingly there was only one angler from the data set that reported their fishing experience as "poor," and none as "very poor."

Table 12.1

Evaluation of fishing experience in Big Creek:	Location 1	Location 2	Location 3	Whole Sample (n=108)
Excellent	37.9%	65.3%	58.1%	55.5%
Good	44.8%	26.5%	35.1%	34.5%
Fair	13.8%	8.2%	6.5%	9.1%
Poor	3.4%	0%	0%	0.9%
Very Poor	0%	0%	0%	0%

13. How supportive are you of the Idaho Fish and Game catch-and-release regulations for managing native trout fisheries on Big Creek? *(Please check one response)*

STRONGLY SUPPORT (A)	SUPPORT (B)	NEITHER SUPPORT NOR OPPOSE (C)	OPPOSE (D)	STRONGLY OPPOSE (F)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Key findings: Location 1 anglers "strongly supported" (69%) Idaho Fish and Game catch-and-release regulations. Location 2 anglers displayed the biggest support at 73.5%. The "strong support" decreased to 58.1% in Location 3 coupled with an increase of 16.1% in "neither support nor opposition" previously unseen in the other two locations.

Across all locations, over 88% of anglers “support” the regulations in Big Creek, with the majority of them (n=72) demonstrating a “strong support.” Surprisingly, only two anglers in the data set “opposed” the regulations while none “strongly opposed” them (Locations 2 and 3) .

Table 13.1

Support for IDFG catch-and-release:	Location 1	Location 2	Location 3	Whole Sample (n=108)
Strongly Support	69%	73.5%	58.1%	67.3%
Support	27.6%	16.3%	22.6%	21.8%
Neither Support nor Oppose	3.4%	8.2%	16.1%	9.1%
Oppose	0%	2.0%	3.2%	1.8%
Strongly Oppose	0%	0%	0%	0%

14. How likely will you be to make a return trip to Big Creek in the next year?
(Please check one response)

CERTAIN TO RETURN	VERY LIKELY TO RETURN	FAIRLY LIKELY TO RETURN	UNLIKELY TO RETURN	CERTAIN TO <u>NOT</u> RETURN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Key findings: In Location 1, 86.2% of anglers were at least “fairly likely to return” within the year. In Location 2, 88% were at least “fairly likely to return,” almost a two percent increase over Location 1. In Location 3, the likeliness of returning decreases dramatically to 63.3% who were at least “fairly likely to return.”

Across locations, over 80% of anglers marked that they were at least “fairly likely to return to Big Creek” in the next year. Furthermore, eight anglers were “certain to not return” within the year, the majority of them were anglers from Location 3.

Table 14.1

Likelihood of returning to Big Creek in the next year:	Location 1	Location 2	Location 3	Whole Sample (n=108)
Certain to Return	27.6%	32.0%	20.0%	28.2%
Very Likely to Return	27.6%	24.0%	13.3%	21.8%
Fairly Likely to Return	31.0%	32.0%	30.0%	30.9%
Unlikely to Return	10.3%	10.0%	20.0%	12.7%
Certain to Not Return	3.4%	2.0%	16.7%	6.4%

15. In this section we would like you to report on the expenses you incurred for this trip (*Please fill table, if unsure of exact amounts, please estimate*).

LOCATION/ CLOSEST TOWN	TRANSPOR- TATION Gas, air fare, car rental, parking, etc.	FEES & LICENS ES	WILDERNE SS FOOD AND LODGING Prepaid groceries, etc.	NON- WILDERNE SS LODGING & FOOD Hotel/mote l, cabins, camping	EQUIPMEN T Tackle, clothing, camping gear, maps ,etc.,	OUTFITTE R COSTS	OTHER	
							\$	Please Describe
For Example McCall	\$35.00	\$23.50	\$127	\$0	\$212	\$0	\$12	Telephon e

Key findings: The biggest expenditures in Location 1 consisted of transportation and wilderness food and lodging. In Locations 2 and 3, transportation as well as equipment and outfitter rental were the highest expenses incurred for a trip to Big Creek.

Table 15.1

Expenditures	Location 1		Location 2		Location 3	
	Min	Max	Min	Max	Min	Max
Transportation to Big Creek	\$15	\$2,500	\$50	\$3,000	\$23.5	\$2,200
Fees & Licenses	\$11	\$74.5	\$12.5	\$181	\$15	\$300
Wilderness Food & Lodging	\$10	\$250	\$20	\$460	\$20	\$400
Non-wilderness Food & Lodging	\$8	\$100	\$20	\$400	\$20	\$500
Equipment	\$10	\$300	\$10	\$1000	\$10	\$1000
Outfitter	\$0	\$0	\$1,500	\$1,500	\$1,300	\$8,000
Other	\$20	\$20	\$250	\$250	\$20	\$20

Outfitted fishermen from Locations 2 and 3 in this question recorded substantially higher expenditures than non-outfitted fisherman resulting in a lobe-sided distribution. For this reason, the following analysis will be conducted using median as opposed to mean dollar values as presented in graphs 15.1, 15.2, 15.3. All of the values have been calculated on a per capita basis.

Figure 15.1

Location 1 Median Expenditures

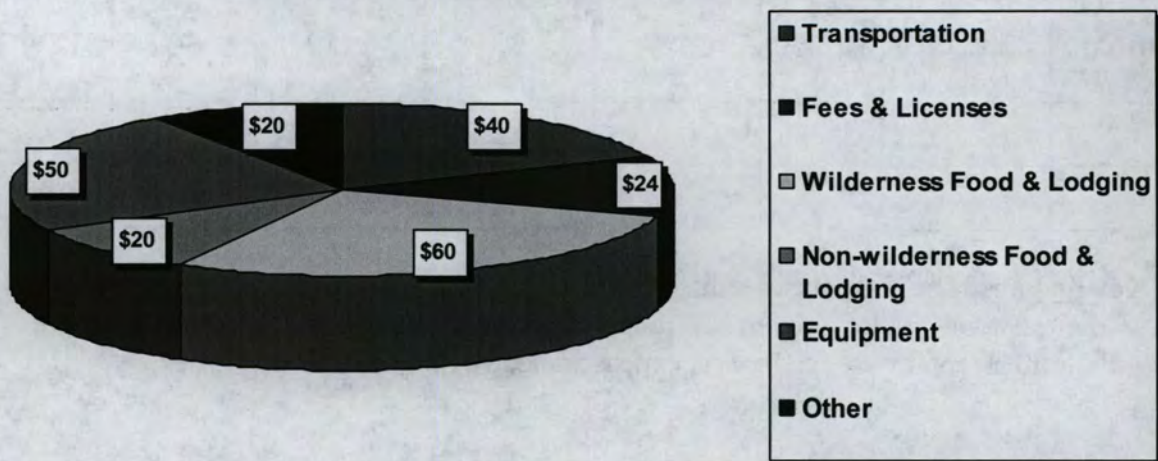


Figure 15.2

Location 2 Median Expenditures

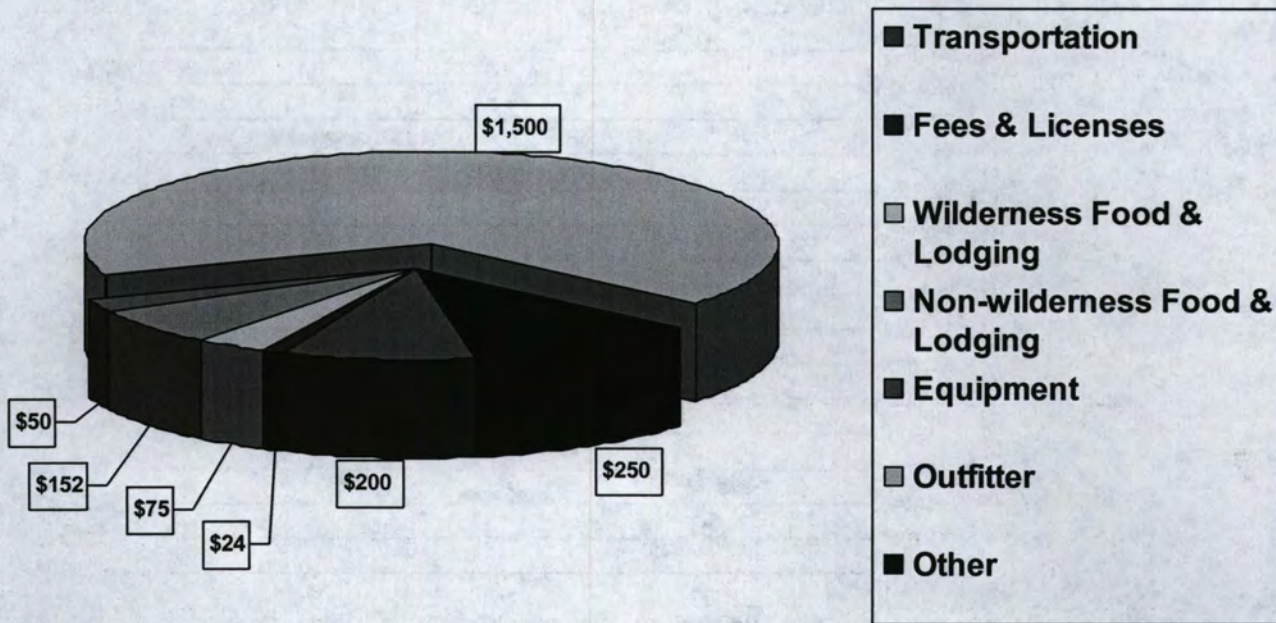
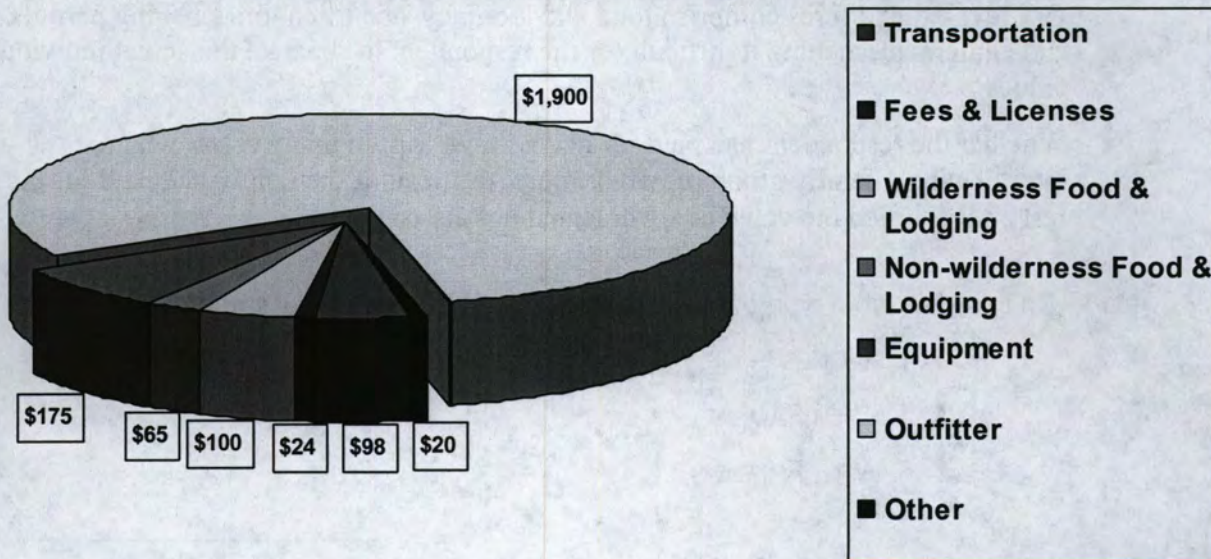


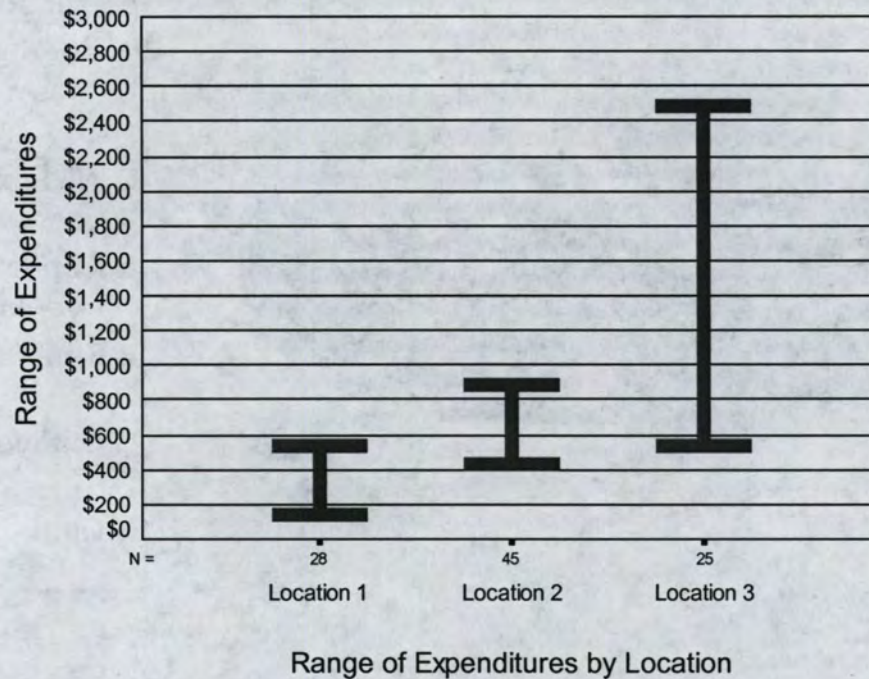
Figure 15.3

Location 3 Median Expenditures



The approximate cost of visiting Location 1, 2, and 3 in Big Creek are \$215, \$470, and \$1,100 per person respectively. It is confidently estimated that 95% of anglers visiting Locations 1, 2, 3 on Big Creek will pay within the range of \$100-\$550, \$400-\$900, and \$550-\$2500 respectively.

Figure 15.4



The wide intervals in the expenditures are a result of several of the following individual conditions or an unknown combination of them:

- Trip length
- Number of people in group
- Outfitter expenditures comprise food and lodgings, and often times fishing permits and equipment, making it difficult for the respondent to separate the actual individual values.
- Whether the respondent had paid for his/her own trip. In many cases, when interviewing a family group of two or more, the head of the family had paid for the rest and recorded the value as a whole and not per capita.

16. On this visit, what type of group were you with? (Please check one response)

- | | |
|---------------------------------------|--|
| <input type="checkbox"/> ALONE | <input type="checkbox"/> WITH FAMILY AND FRIENDS |
| <input type="checkbox"/> WITH FAMILY | <input type="checkbox"/> OUTFITTED |
| <input type="checkbox"/> WITH FRIENDS | <input type="checkbox"/> OTHER |

Key findings: In Location 1, the predominant group was composed of friends traveling together (57.1%). In Locations 1 and 2, approximately 58% of groups were composed of friends. In Location 3, 57% of the sample was outfitted by rafting or fishing guides. The majority of anglers in Big Creek came accompanied by friends (46.4%), traveling with family only represented 22.3% while traveling with both family and friends represented almost 20% of the sample.

Table 16.1

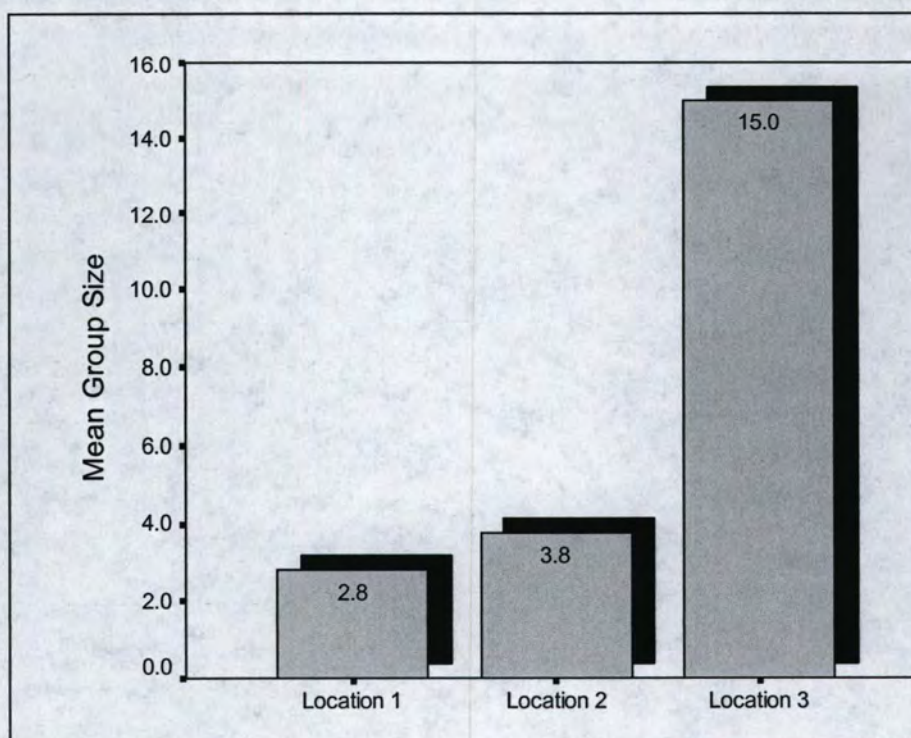
Percentage of group composition:	Location 1	Location 2	Location 3	Whole Sample (n=112)
Alone	0%	0%	3.3%	1.8%
With Family	32.1%	18%	23.3%	22.3%
With Friends	57.1%	58%	16.7%	46.4%
With Friends & Family	10.7%	24%	20%	19.6%
Outfitted	0%	4%	57%	17%

17. On this visit, how many people were in your group including yourself?

_____ NUMBER OF PEOPLE

Key findings: Mean group size was 2.8, 3.8 and 15.0 in Locations 1 through 3 respectively, increasingly proportionally with the capacity of the mode of transportation and with the ease in carrying the food and equipment necessary. Across locations, median group size was four people.

Figure 17.1



18. Did you use a fishing guide on this trip? (*Please check one.*)

YES

NO

Please explain why, or why not.

Key findings: Out of 78 valid cases, ten (12.8%) had used a fishing guide for their trip in Big Creek, and the rest had not. There were only two outfitted fishermen in Location 2 and the rest were on a guided float trip down the MFSR (Location 3). The following reasons were listed for hiring a fishing guide to come to Big Creek:

Table 18.1

Why I used a guide:	Frequency	Percentage
Came with [Rafting] Outfit	3	30%
Do Not Know the Area	3	30%
To Catch More	1	10%
I am the Guide	3	30%

The following were listed as reasons for not hiring a guide to fish in Big Creek:

Table 18.2

Why I did not use a guide:	Frequency	Percentage
Not Necessary ¹	33	48.5%
Have Fishing Experience	12	17.6%
I Know the Area	9	13.2%
Someone in Group has Experience/Knows Area	9	13.2%
Too Costly	2	2.9%
Read About Place & Necessities ²	3	4.4%

¹No other reason was provided,

²Rick Ostoff's "Fly-fishing the Rockies"

19. In the past 5 years, how many times have you gone fishing on Big Creek counting this trip? (*Please enter number of times*)

_____ TIMES

Key findings: In Location 1, 65% of the people were visiting for the first time (n=19), and 24% were on their fourth and fifth trip (n=7). In Location 2, 48% were on their first trip (n=24), and 32% were on their second and third trip (n=16). In Location 3, 65% of the people were on their first trip (n=21). On average, the majority of the sample was participating on their second trip to Big Creek in the past five years.

Table 19.1

	Location 1	Location 2	Location 3
Mean number of trips to Big Creek in past 5 years	2.6	2.4	3.3
Anglers that were on their:			
2 nd -3 rd trip	6.9%	16%	9.4%
4 th -5 th trip	24.1%	20.7%	12.5%
6 th + trip	3.4%	13.8%	13.8%

20. What is the Zip Code of your current residence?

Key findings: The proportions of Idahoans in Locations 1, 2, and 3 were 52%, 46%, and 43% and represented the largest number of anglers in Big Creek at 47.7%. The second largest number of visitors came from California at 11.9%, their largest concentration present in Location 1 at 18%. The third and fourth largest state representation came from Washington state, and Oregon with 9.2% and 8.3% respectively. The biggest proportion of Washington and Oregon residents visiting Location 2 and Location 1 respectively. The remaining places of residence were then grouped into four categories:

- Southeastern residents: North Carolina, South Carolina, and Tennessee with a combined 4.6%.
- Northeastern residents: Massachusetts, Connecticut, and Pennsylvania, with a combined 9.2%.
- Mid to Eastern Central residents: Illinois, Missouri, and Texas with a combined 4.6%.
- Western Central residents: Arizona, Nevada, Colorado, Montana with a combined 4.6%.

Table 20.1

Place of Residence:	Location 1	Location 2	Location 3	Whole Sample (n=109)
ID residents	52%	46%	43%	47.7%
WA residents	0%	14%	7%	9.2%
OR residents	11%	24%	7%	8.3%
CA residents	18%	4%	13%	11.9%
Southeastern residents	7%	0%	10%	4.6%
Northeastern residents	0%	12%	0%	9.2%
Mid to Eastern Central residents	7%	0%	7%	4.6%
Western Central residents	4%	0%	10%	4.6%
	n=29	n=50	n=30	

21. What is your present age? *(Please enter number of years)*

_____ YEARS

22. How many years of formal education have you completed? *(Circle one number)*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20+
Elementary School						JR. High--High School						College				Graduate School			

Key findings for questions 21 and 22: Anglers from Location 1 and 2 tend to be older (42 and 43 years old respectively) than anglers in Location 2. Moreover, Location 1 anglers have slightly more years of education than those from the other two locations. Across locations, the median age of Big Creek anglers is 41 years, with the youngest one being 11 years old and the oldest one being 73. The average education in years for the creek as a whole is 16 years, with 10% with a high school education, 27.3% with a bachelor education, and 11.8% with higher education.

Table 21-22.1

	Location 1	Location 2	Location 3	Whole Sample (n=109)
Median age	42	37.5	43	41
Mean education years	16	15.5	14.7	16

23. Currently, are you (*Please check all that apply*)

- | | |
|---|------------------------------------|
| <input type="checkbox"/> EMPLOYED FULL-TIME | <input type="checkbox"/> RETIRED |
| <input type="checkbox"/> EMPLOYED PART-TIME | <input type="checkbox"/> HOMEMAKER |
| <input type="checkbox"/> SELF-EMPLOYED | <input type="checkbox"/> STUDENT |
| <input type="checkbox"/> UNEMPLOYED | |

Key findings: In Locations 1, 2, and 3, the majority of anglers are employed full time. In Location 1, the next highest proportions are self-employed and student anglers. This location also exhibits the highest percentage of unemployment. In Location 2, the next highest proportions are also from self-employed and student anglers as exhibited in Location 1. In Location 3, the proportions of student and part-time anglers are substantial at 35.7% and 14.3% respectively. This is in part explained by families that go on rafting trips as well as the rafting and fishing guides who tend to be college students.

Across locations, just over half of the sample is employed full-time. The other two substantial categories are students and self-employed individuals at 18.2% and 16.4% respectively.

Table 23.1

Percentages of:	Location 1	Location 2	Location 3	Whole Sample (n=110)
Full-time	53.6%	62%	46.4%	55.5%
Part-time	7.1%	2%	14.3%	6.4%
Self-employed	14.3%	20%	7.1%	16.4%
Unemployed	10.7%	2.0%	0%	3.6%
Retired	7.1%	6.0%	7.1%	6.4%
Homemaker	0%	6%	7.1%	4.5%
Student	14.3%	12%	35.7%	18.2%
	n=29	n=50	n=30	

24. Which of the following best describes your total family income before taxes in 2003? (Please check one).

- LESS THAN \$20,000 \$80,001 — \$120,000
 \$20,001 — \$40,000 \$120,001 OR MORE
 \$40,001 — \$80,000

Key findings: The majority of anglers visiting Location 1 (47.8%) have a yearly income ranging between \$40,001 and \$80,000. The next highest proportion is the anglers earning between \$80,001-\$120,000 at 21.7%. In Location 2, almost half of the anglers (n=22) earn \$120,001 or more a year and the next higher proportion is the income bracket between \$80,001-\$120,000 at 16.3%. In Location 3, income distribution is bimodal, with 26.1% of them earning under \$20,000 and 30.4% earning more than \$120,001. The reason behind this distribution is in the number of students interviewed living in Taylor Ranch and the students whose parents paid for their raft trips on the MFSR or that are hired as guides (n=9).

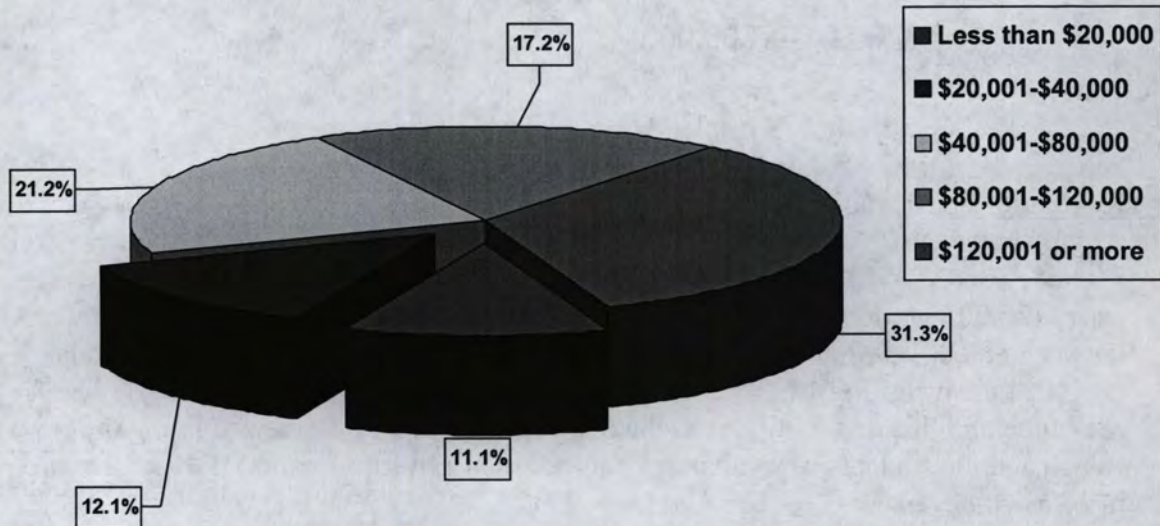
Across locations, just over a third of Big Creek anglers earn \$120,001 or more a year. The next highest proportions are seen in the income bracket of \$40,000-\$80,000 and \$80,001-\$120,000 at 21.2% and 17.2% respectively.

Table 24.1

Percentages of income:	Location 1	Location 2	Location 3	Whole Sample (n=98)
Less than \$20,000	8.7%	6.1%	26.1%	11.1%
\$20,001-\$40,000	17.4%	12.2%	8.7%	12.1%
\$40,001-\$80,000	47.8%	10.2%	17.4%	21.2%
\$80,001-\$120,000	21.7%	16.3%	8.7%	17.2%
\$120,001 or more	4.3%	44.9%	30.4%	31.3%
	n=24	n=49	n=25	

Figure 24.1

Big Creek Income Distribution



[Back of the survey] Do you have any additional comments about your fishing experience along Big Creek? (*Please explain below*).

Key Findings: Of 112 anglers interviewed during the sampling period, 50 of them answered this optional question. Brackets indicate the researcher's clarification of the anglers' message.

Table 1 of Additional Comments

Wilderness Experience Related:

Beautiful area, exceptional location (n=7)

Just being able to fly fish is a great relaxation for me. Flying into Cabin Creek strip is fairly easy & spending a day on such beautiful water & surroundings is well worth getting pounded by turbulence for 8hrs flying in a small plane.

The weather was great and we all enjoyed it.

Great creek. I will be back one day.

Had a good time (n=2)

I really enjoy coming to a beautiful pristine wilderness like Big Creek.

Even though it cost a lot of [money] to fly [my] own plane from Yakima, I feel it's worth the expense to enjoy this beautiful place.

The wilderness experience is an important part of fishing Big Creek [as well as] getting away from the crowds (n=2).

This is my church since 1961.

 Table 2 of Additional Comments

 Wilderness Land Management Related:

A lot more people than expected. Closing down Vines & Dewey Moore [airstrips] will only aggravate this issue for Cabin Creek airstrip. What's next? Landing permits to control visitation? More land locked away?

Eliminating Vines and Dewey Moore Airstrips would make it impossible for me to enjoy Big Creek. Please help prevent the USFS from closing them.

Best maintained trail ever encountered (n=3).

It's nice 'not' to see litter & trash scattered all over.

Keep it like it is [Wilderness section of the Big Creek drainage]!

Nice campsite at Big Creek [landing strip].

Not crowded, nice camping.

Too many fire rings, should be outlawed (n=3).

Too much [sheet] grass!

 Table 3 of Additional Comments

 Wilderness Fishing Related:

[Creek is] best suited to fly fishing than a spin caster like me.

[It is] one of the best catch and release streams in the US.

Able to use dry [flies] and nymphs.

Allow one fish per day limit. Consider single barb-less hooks rather than barb-less trebles. I caught & released about 50 fish today (all cutthroat, 2 brookies, 1 whitefish). Several fish hooked deep with a barb-less treble and were harmed after hook removal.

Beautiful cutthroat [trout]

Good questions! But needs more specific information on fish: species, size, number caught.

Great fishing (n=6)

I am not the biggest fisherman.

I would have liked to been able to eat some trout on our kayaking trip.

I would like to keep 1 fish per day. Everyday I fish; one gets caught in the gills and is not likely to make it.

Please keep improving the natural habitat for the future.

Really good fly fishing with strong fighting fish.

The fishing is not real technical, but good for ensuring everyone catches fish.

Wonderful wild stream.

CONCLUSION

The summary section of this report is organized to create a profile of the typical angler fishing Big Creek depending on the location visited. The demographical, motivational, and experiential characteristics are derived from the following survey questions and will be addressed in the same order:

- Demographical profile: Q21, Q20, Q2, Q3, Q13, Q22, Q20, Q24, Q4, Q17, Q15.
- Motivational: Q9, Q11 (please refer to Key Findings for questions 9 and 11, page 5)
- Experiential: Q1, Q10, Q18, Q8, Q7, Q12, Q14, Q19.

This study finds that the anglers' general characteristics are as follows:

Location 1:

Demographical: Anglers are 42 years old, male, and mostly from Idaho (52%), or from California (18%) and Oregon (11%). They started fishing in 1982 and fished between 11-20 days a year. Almost 100% support IDFG catch-and-release regulations and only 3.4% neither support nor oppose them. They have completed a college education and are mainly employed full-time with only 14.3% being students. They earn between \$40,001 and \$80,000 a year before income taxes. Anglers arrived to this location by driving their own private automobiles on FSR 340 and hiked from the trailhead on. They were accompanied by friends only and their total group size was three people. Their median expenditures for a trip in Big Creek were of \$215.

Experiential: Anglers in this location mainly fly-fish (89%) and fish from shore (42.9%). The majority looks at fishing equipment a few times a year, talk about fishing with friends and family almost every month, watch TV fishing programs and read fishing magazines a few times a year, and never watch fishing videos or visit internet fishing sites. None used a fishing guide in Big Creek as 40.9% thought of it as unnecessary. Their trip lasted a median of 3. days and they walked up and down the creek while fishing a median of 5.5 miles. The majority of them evaluated their fishing trip to Big Creek as "good" and are "fairly likely to return" within the next year. The majority of anglers were on their first trip to Big Creek while the next highest percentage had been to Big Creek four to five times.

Economic Impact: An angler spends roughly \$215 to fish at this location. The biggest expenses are in wilderness food and lodging (\$60), in equipment (\$50), and in transportation (\$40).

Location 2:

Demographical: Anglers are 38 years old, male, and mostly from Idaho (46%), or from Oregon (24%) and Washington (14%). They started fishing in 1974 and fished between 4-10 days a year. Almost 90% support IDFG catch-and-release regulations, 8.2% neither support nor oppose them, and 2% oppose it. They have mostly completed a college education and are mainly employed full-time with or are self-employed (20%). They earn \$120,001 or more a year before income taxes. Anglers arrived to this location by either a private or commercial aircraft. They were mostly accompanied by friends only (58%) and their total group size was four people. Their median expenditures for a trip in Big Creek were of \$470.

Experiential: Anglers in this location mainly fly-fish (82%) and fish from shore (32%). The majority looks at fishing equipment, talk about fishing with friends and family, watch TV fishing programs, and read fishing magazines a few times a year. The majority never watches fishing videos or visit internet fishing sites. Only two anglers from this location hired local outfitters as they did not know the area. Their trip lasted a median of 3 days and they walked up and down the creek while fishing a median of 5 miles. The majority of them evaluated their fishing trip to Big Creek as "excellent" and are 32% "certain to return" or "fairly likely to return" within the next year, respectively. The majority of anglers were on their first trip to Big Creek while the next highest percentage had been to Big Creek four to five times.

Economic Impact: An angler spends roughly \$470 to fish at this location. The biggest expenses are in non-wilderness food and lodging (\$152), in transportation (\$200), and in "other expenses" (\$250) such as aircraft repair and maintenance. If the angler is outfitted locally, then expenditures are roughly \$1,500 per person.

Location 3:

Demographical: Anglers are 43 years old, male, and mostly from Idaho (43%), or from California (13%) and 10% from the Southeast or Western-Central U.S. (as defined under question 20, page RR), respectively. They started fishing in 1982 and fished between 11-20 days a year. Just over 80% support IDFG catch-and-release regulations, 16.1% neither support nor oppose them, and 2% oppose them. They average 14.7 years of education and are mainly employed full-time with or are students (35.7%). Their income distribution is bimodal; 30.4% earn \$120,001 or more a year before income taxes and 26.1% earn less than \$20,000 a year before income taxes. Anglers arrived to this location primarily by rafting down the MFSR (65.6%) or with a commercial aircraft (28.1%). They were mostly outfitted (57%), accompanied by family only (23.3%) and their total group size was fifteen people. Their median expenditures for a trip in Big Creek were of \$1,100.

Experiential: Anglers in this location mainly fly-fish (80%) and fish from a boat (53%). The majority looks at fishing equipment a few times a year, and talk about fishing with friends and family almost every month. The majority never watches TV fishing programs

and fishing videos, reads fishing magazines, or visits internet fishing sites. Eight anglers from this location hired local fishing guides, from which only one of the anglers mentioned that the reason for hiring a guide was to catch more fish. The rest of the anglers had rafting guides that acted in part as fishing guides. Their trip lasted a median of half a day as the majority of anglers were on guided raft trips. They walked a median of 1 mile. The majority of them evaluated their fishing trip to Big Creek as "excellent" and are 30% "fairly likely to return" within the next year. The next largest proportions at 20% are "certain to return" and "unlikely to return" within the next year respectively. The majority of anglers were on their first trip to Big Creek while the next highest percentage had been to Big Creek six times or more.

Economic Impact: An angler spends roughly \$1,100 to fish at this location by rafting down the MFSR. The biggest expenses are in wilderness food and lodging (\$100), in equipment (\$175), and in transportation (\$98). If the angler is outfitted locally, then expenditures are roughly \$1,900 per person.

Things to do differently:

The opportunity to conduct social research in a remote setting is extremely valuable from both a career development and scientific stance. The collection of baseline data should be repeated in Big Creek in the near future to corroborate the economic, motivational, and experiential trends perceived through this study as well as to identify new trends. Certain recommendations for more effective data collecting are worth making to the future researcher or researchers.

Given the Big Creek trail is approximately 44 miles long, one researcher alone can only search for anglers in a third of the creek and its tributaries in three to four days. Much of this time is spent waiting for anglers to arrive at airstrips or return to their base camp from a day of fishing, making data collection very slow. For this reason, the most important recommendation is to have two field researchers. It happen too often that while sampling rafters at the mouth of Big Creek, four or five groups would be fishing Beaver Creek near the trailhead or vice versa.

Another suggestion is to be in radio or satellite phone contact with the USFS ranger station in Big Creek and the major air-taxi services. They are constantly aware of recreationists arriving at the creek and can notify the researcher of sampling opportunities and their specific location.

In regards to the sampling instrument, the following suggestions are worth considering:

- Reduce the number of questions asked. It was noticed that interviewees were tired and had difficulty concentrating past the fourth page of the survey with still two pages left to go.
- Incorporate biological data in the survey such as number of fish caught, species, and size.

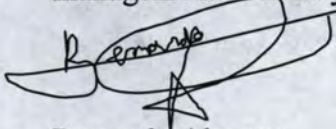
- Provide a web-based questionnaire since some fisherman were in a time constraint and were unable to fill a questionnaire or properly concentrate on the questions asked (e.g. Location 3 floaters). Prospective interviewees could provide their email to the researcher and the link to the questionnaire could be sent to the interviewee using the wireless internet connection at Taylor Ranch Field Station.
- Distribute surveys to fishing outfitters from Canyon Creek, Cabin Creek, and those conducting trips on the MFSR so they can administer them to their clients. The researcher could either pick them up at a later date or have them mailed-in.

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Many thanks go to the USFS and its wilderness resource specialist Clem Pope for his unquestionable support in this study. Special thanks go to Big Creek ranger station specialists and caretakers Heidi and Rozlyn for their bountiful hospitality and countless shuttles to and from the trailhead. The young but amply resourceful West Virginians Robert and Danny, guides of Canyon Creek Outfitters, deserve a load full of special thanks for letting me crash uninvited in their camp, eat and drink like royalty, and for teaching me to ride bareback and capture snipes in this majestic country.

Lastly, to all the anglers who through their enthusiasm for the time-honored sport of fishing gratefully took 20 minutes of their time to fill the survey (yes, I lied, it wasn't 10 minutes) of an international student wandering the Frank Church Wilderness. Many of you actually fed me and gave me fishing tips, considering me a friend in situations where normally one passes for a stranger. I am deeply grateful for this attention. I along with future scientists and resource managers are indebted to you and your information as it provides Big Creek's corner stone in social research, helping identify the use of one of this country's last remaining wild places and ensure its future protection and management. Thank you so very much.



Bernardo Alvarez

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This first set of questions asks about your general fishing experiences.

1. What kind of fishing do you usually engage in? *(Please check as many as apply)*

- SPIN FISHING
- FLY-FISHING
- BAIT FISHING

- FISHING FROM A BOAT OR RAFT
- SHORE FISHING/WADING
- FLOAT TUBE FISHING

2. When did you first start fishing? *(Please write in the year)*

YEAR I STARTED FISHING _____

3. About how many days do you spend fishing each year? *(Please check one)*

- 1 – 3 DAYS A YEAR
- 4 – 10 DAYS A YEAR
- 11 – 20 DAYS A YEAR

- 21 – 30 DAYS A YEAR
- 31 OR MORE DAYS A YEAR

Next, some questions about your fishing here TODAY.

4. How did you get to Big Creek for this trip? *(Please check all that apply)*

- PRIVATE PLANE
- PRIVATE VEHICLE
- COMMERCIAL PLANE

- HORSEBACK
- HIKE
- RAFT/KAYAK

5. If you arrived by plane, what airstrip did you fly in from? *(Please write in the name)*

I flew in from _____

6. Excluding travel from your home to the Big Creek, how did you travel around within this area?

TRAVEL MODE

How often did you use each travel mode in the Big Creek area?

(Please circle one response for each travel mode)

	ALWAYS	VERY OFTEN	FAIRLY OFTEN	OCCASIONALLY	NEVER
On foot					
On horse back					
Boat/float tube					
Backcountry plane					

7. About how far from your entry point (base camp) did you travel up and down Big Creek as you fished? *(Please write in your answer)*

_____ MILES

8. How long did you or do you plan to fish on Big Creek this trip? *(Please write in the number of days)*

_____ Days

9. Below is a list of possible reasons for fishing. Please tell us how important each one is to you as a reason to fish **here today**.

**REASONS FOR FISHING
HERE TODAY**

**How important is each reason to you?
*(Please circle one response for each reason)***

	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
For the stimulation and excitement of fishing.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Releasing or reducing some built-up tensions while I fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Showing others I can fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Developing personal spiritual values.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Competing against other anglers.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Filling my daily catch limits.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Catching different kinds of fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Catching trophy fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Catching <i>any</i> fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Learning new fishing skills from others.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Getting away from crowds.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Testing my fishing abilities.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Testing flies that I have tied.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Sharing what I know about fishing with others.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT

**REASONS FOR FISHING
HERE TODAY**

How important is each reason to you?
(Please circle one response for each reason)

Being with friends while I fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Learning more about the river or stream.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Being with my family while I fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Seeing fish jump or rise.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Testing and using my fishing equipment.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Developing close friendships with my fishing companions.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Thinking about my personal values while I fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT

Fishing in this area because I am attached to it.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
Learning more about fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
To see if I could fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
To be close to nature while I fish.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT
To get away from the usual demands of life while I am fishing.	NOT IMPORTANT	SOMEWHAT IMPORTANT	MODERATELY IMPORTANT	QUITE IMPORTANT	EXTREMELY IMPORTANT

10. Over the last couple of years how often have you done each of the following?

How often have you done each of the following?
(Please circle one response for each item)

Look at fishing equipment in stores or catalogues.	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Talk about fishing with my friends and family.	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Watch TV fishing programs	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Read fishing magazines	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Watch fishing videos	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH
Visit fishing Internet sites	NEVER	A FEW TIMES A YEAR	ALMOST EVERY MONTH	USUALLY A FEW TIMES EACH MONTH

11. People fish for many reasons. **IN GENERAL**, how important are catching, keeping and eating fish to you? For each of the following statements about catching fish please tell us how strongly you agree or disagree?

STATEMENT	How do you feel about each statement (Please circle one response for each statement)				
	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
Fishing can be good even when I don't catch fish.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
When I go fishing, I'm just as happy if I don't catch a fish.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
The best fishing is when I can keep the fish I catch.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
Catching a trophy fish is the best reward for me.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
A full stringer is the best indicator of a good fishing trip.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
I am not satisfied unless I catch at least one fish.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
Catching fish to eat at home is an important part of fishing.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
The more fish I catch the happier I am.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
The bigger the fish I catch, the better the fishing.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
Fishing is best when I catch many fish.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
I'm just as happy if I don't keep the fish I catch.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY
I am happiest with fishing when I catch fish that are hard to catch and land.	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY

12. How would you evaluate your fishing experience on Big Creek on this trip? (Please check one response)

EXCELLENT (A)	GOOD (B)	FAIR (C)	POOR (D)	VERY POOR (F)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. How supportive are you of the Idaho Fish and Game catch-and-release regulations for managing native trout fisheries on Big Creek? (Please check one response)

STRONGLY SUPPORT (A)
 SUPPORT (B)
 NEITHER SUPPORT NOR OPPOSE (C)
 OPPOSE (D)
 STRONGLY OPPOSE (F)

14. How likely will you be to make a return trip to Big Creek in the next year? (Please check one response)

CERTAIN TO RETURN
 VERY LIKELY TO RETURN
 FAIRLY LIKELY TO RETURN
 UNLIKELY TO RETURN
 CERTAIN TO NOT RETURN

15. In this section we would like you to report on the expenses you incurred for this trip (Please fill table, if unsure of exact amounts, please estimate)

LOCATION/ CLOSEST TOWN	TRANS- PORTATION	FEES & LICENSES	WILDERNESS FOOD AND LODGING	NON- WILDERNESS LODGING & FOOD	EQUIPMENT	OUTFITTER COSTS	OTHER	
	Gas, air fare, car rental, parking, etc.		Prepaid groceries, etc.	Hotel/motel, cabins, camping	Tackle, clothing, camping gear, maps, etc.,		\$	Please Describe
For Example: <i>McCall</i>	\$35.00	\$23.50	\$127	\$0	\$212	\$0	\$12	Telephone

Finally, a few questions about you.

16. On this visit, what type of group were you with? (Please check one response)

ALONE
 WITH FAMILY AND FRIENDS
 WITH FAMILY
 OUTFITTED
 WITH FRIENDS
 OTHER: _____

17. On this visit, how many people were in your group including yourself?

_____ NUMBER OF PEOPLE

18. Did you use a fishing guide on this trip? *(Please check one.)*

YES NO

Please explain why, or why not.

19. In the past 5 years, how many times have you gone fishing on Big Creek counting this trip?
(Please enter number of times)

_____ TIMES

20. What is the Zip Code of your current residence?

21. What is your present age? *(Please enter number of years)*

_____ YEARS

22. How many years of formal education have you completed? *(Circle one number)*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20+
Elementary School						JR. High--High School						College				Graduate School			

23. Currently, are you: *(Please check all that apply)*

- | | |
|---|------------------------------------|
| <input type="checkbox"/> EMPLOYED FULL-TIME | <input type="checkbox"/> RETIRED |
| <input type="checkbox"/> EMPLOYED PART-TIME | <input type="checkbox"/> HOMEMAKER |
| <input type="checkbox"/> SELF-EMPLOYED | <input type="checkbox"/> STUDENT |
| <input type="checkbox"/> UNEMPLOYED | |

We would appreciate you answering the last question. If, however, you feel this is a private matter we respect your decision to not answer.

24. Which of the following best describes your total family income before taxes in 2003? *(Please check one)*

- | | |
|--|---|
| <input type="checkbox"/> LESS THAN \$20,000 | <input type="checkbox"/> \$80,001 – \$120,000 |
| <input type="checkbox"/> \$20,001 – \$40,000 | <input type="checkbox"/> \$120,001 OR MORE |
| <input type="checkbox"/> \$40,001 – \$80,000 | |

Do you have any additional comments about your fishing experience along Big Creek? *(Please explain below)*

THANK YOU

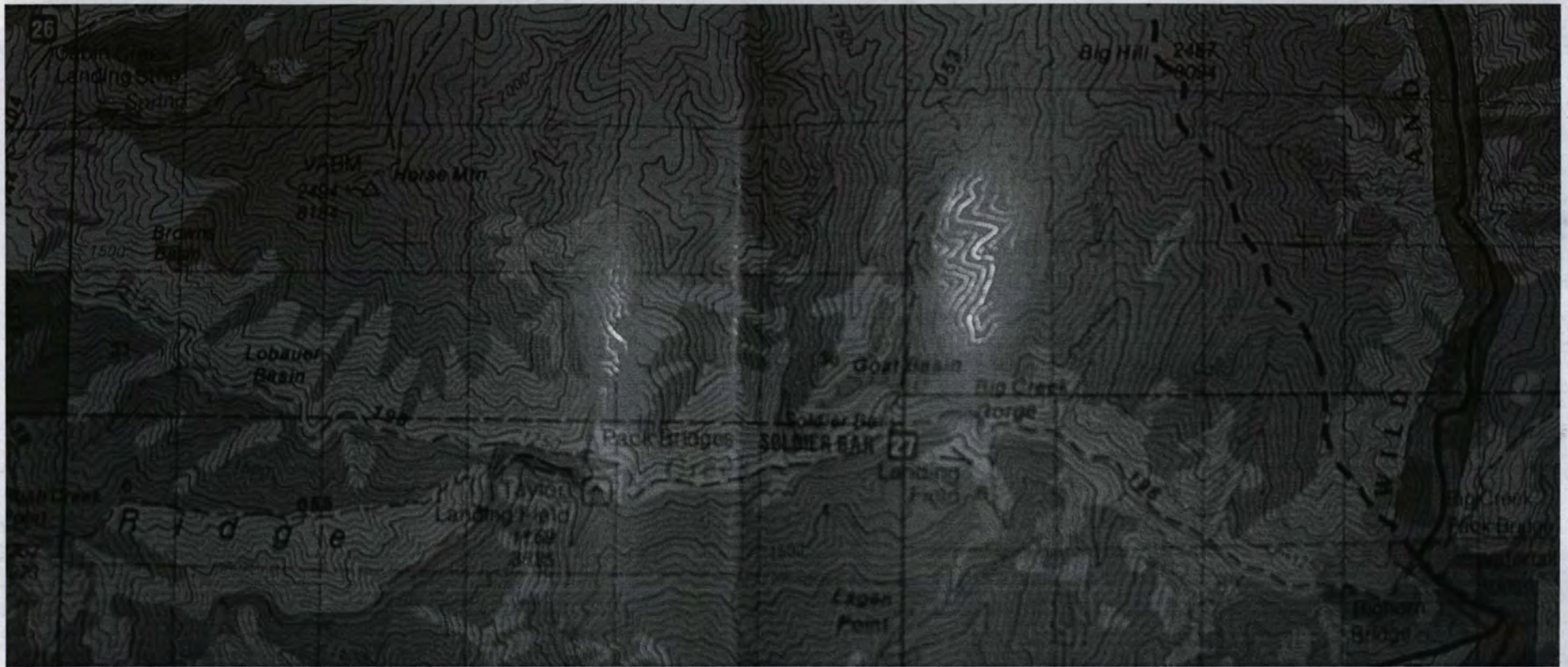
Department of Conservation Social Sciences
College of Natural Resources
University of Idaho
MOSCOW ID 83844-1139



Location 1



Location 2



Location 3