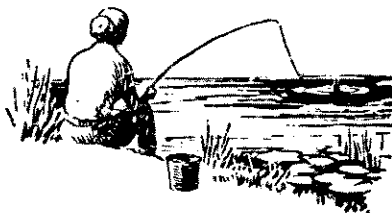


# MONTANA SURVEY OF FISHING AND ASSOCIATED WATER RECREATION

F-R-2  
Ref #  
Rep #



Montana Department of Fish, Wildlife & Parks



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November, 1993



# MONTANA SURVEY OF FISHING AND ASSOCIATED WATER RECREATION

## Survey background and method

The purpose of the general population survey was to gather information about Montanans fishing activities of current and past anglers and opinions about fishing/water related activities of nonanglers. The survey questions were developed by Fisheries division staff and were designed to provide data that would assist with overall fisheries management as well as furnish information comparable to national information concerning trends in fishing.

The survey was conducted using a computer assisted telephone interview program called Questionnaire Programming Language (QPL). The sample consisted of 4,480 randomly selected Montana phone numbers stratified by county population. To insure a representative male/female proportion, we asked to talk to the person eighteen years or older who had the most recent birthday.

The sample of randomly selected phone numbers was provided by Survey Sampling, Inc.. After removing disconnects, answering machines, etc. from the sample, 2,886 eligible contacts were made. The number of completed calls totaled 2,065 resulting in a 72% response rate. The remainder of the sample, 821 people, either refused to answer the questions or terminated the call.

## Introduction

The general population fishing survey was divided into three parts. The first section dealt with current anglers, the second section dealt with those who do not currently fish but used to, and the last section dealt with those people who have never fished.

For those who currently fish, the survey provided information on when they started fishing, the type of water they preferred to fish as well as the type of fish they liked to catch.

If a person stated they had fished in the past but did not fish currently, they were asked a number of questions about their past fishing activities. These respondents were also asked why they had stopped fishing and if they might start fishing again given the opportunity.

Current anglers and those who used to fish were also asked to rate the Fisheries Division's performance in a number of areas ranging from fish habitat protection to overall performance.

The people who said they had never fished were asked if either of their parents had fished, reasons why they do not fish, how they felt about fishing opportunities being available for others, and if they ever participated in a fishing-related or water-based recreation activity.



# Fishing Highlights

- 91% of current anglers had started fishing by the time they reached 18.
- 89.5% of Montanans 18 years and older had fished at least once in their lifetime.
- 52% of Montanans 18 years and older had fished at least once in the last two years.
- 50% of the resident anglers each year are a new fishing license buyer.
- 92% of Montana families eat fish.
- 7.4% of Montanans who fish are 62 years or older.
- Fishing appears to be an activity passed from generation to generation.
  - 63% of nonanglers had parents who didn't fish.
  - Of those whose parents fished, but they didn't, 90% were female.
- 85% of nonanglers are female.
- 6% of Montanans are single parents and about 50% of these parents do not fish.
- Fishing is a social activity with 85% of all fishing trips involving family and friends.
- Trout/salmon species were preferred by 81% of the anglers.
- Only 5% of the current anglers rated the Fish Division's performance as bad/very bad.



# Survey results

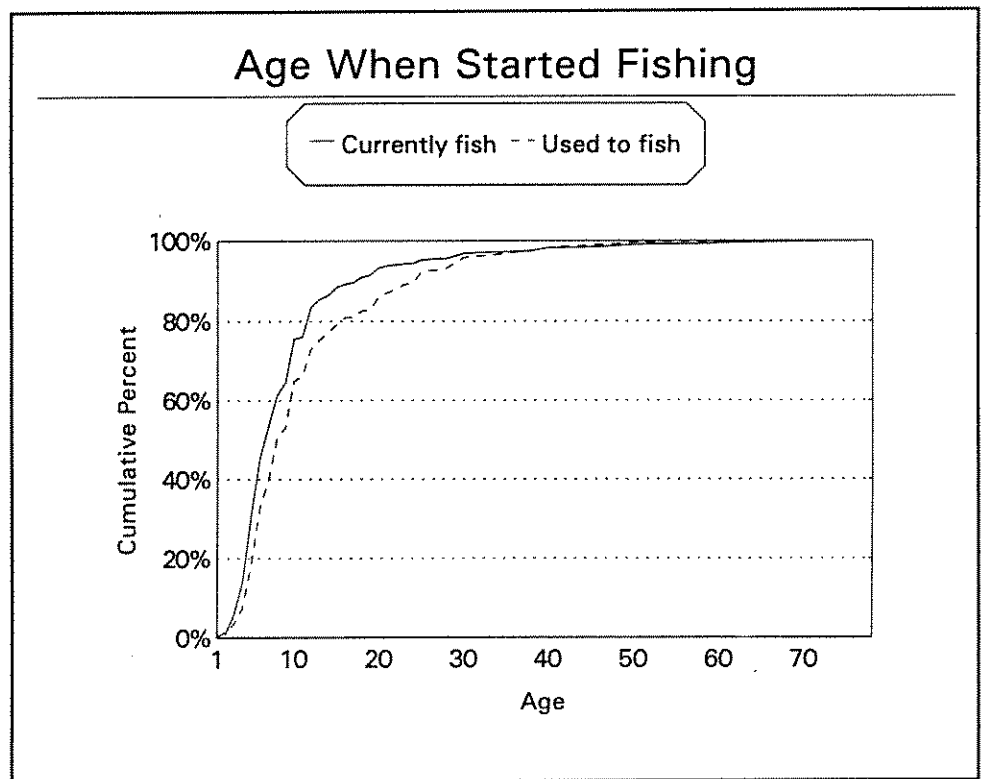
In 1992, 89.5% of Montanan's 18 years and older had fished at least once in their lifetime and over half (52.3%) had fished at least once in the last two years.

The Montana Department of Commerce estimates the number of residents 14 years of age and older living in Montana is 633,780. With 52.3% of these people fishing in the last two years, this would amount to 331,467 anglers for the last two years. The Department of Fish, Wildlife and Parks estimates (from license sales) the number of resident anglers for a single year at 221,723. This would indicate that about half (109,744 anglers) of the resident fishing license buyers are new each year.

When all respondents were asked if they or their family ate fish, 91.8% replied in the affirmative.

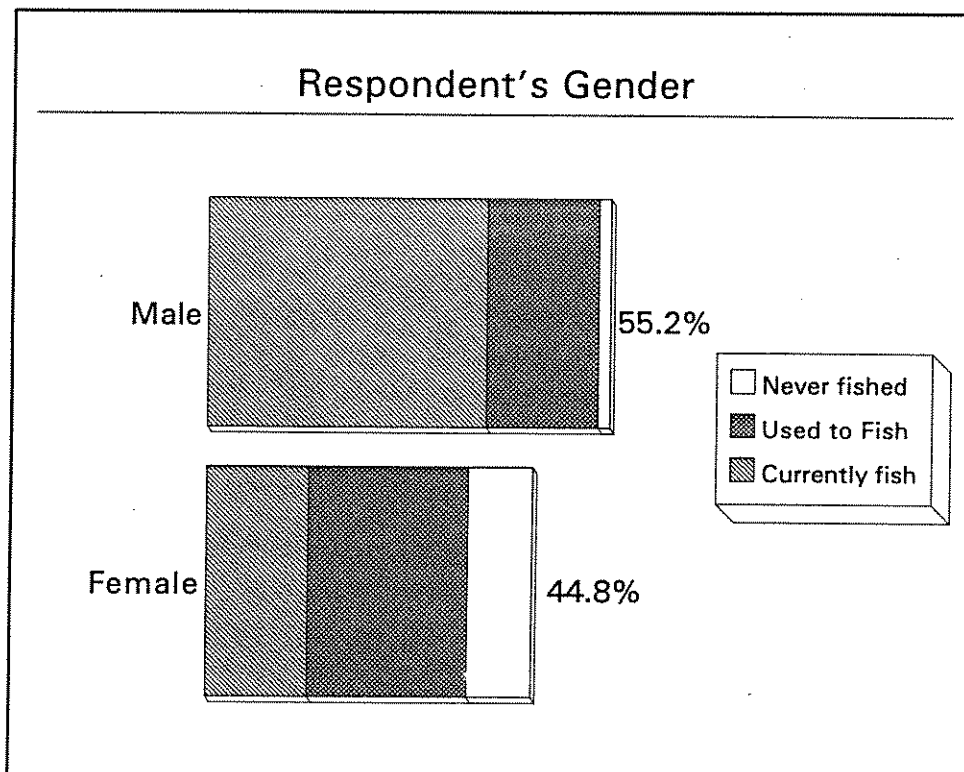
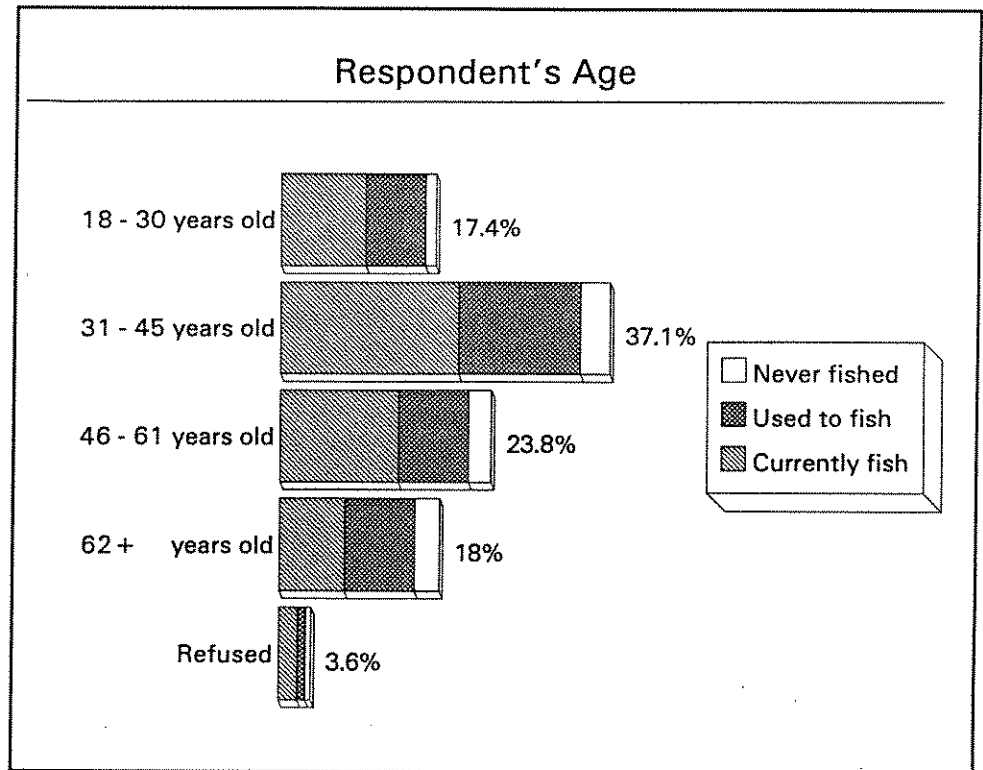
## Sex and age of anglers

By the time they had reached the age of 18, 91.4% of current anglers had started fishing. For residents that used to fish, but had not in the last two years, 82.8% had started fishing by the time they reached the age of 18. The earlier in life one starts fishing the more likely you are to continue fishing.



Fishing is enjoyed by all age groups. Approximately 50% of all age groups are active anglers.

The "used to fish" group was slightly higher, proportionally, for the 62+ age group, than in the other age groups. This is not surprising since age can limit outdoor activities.



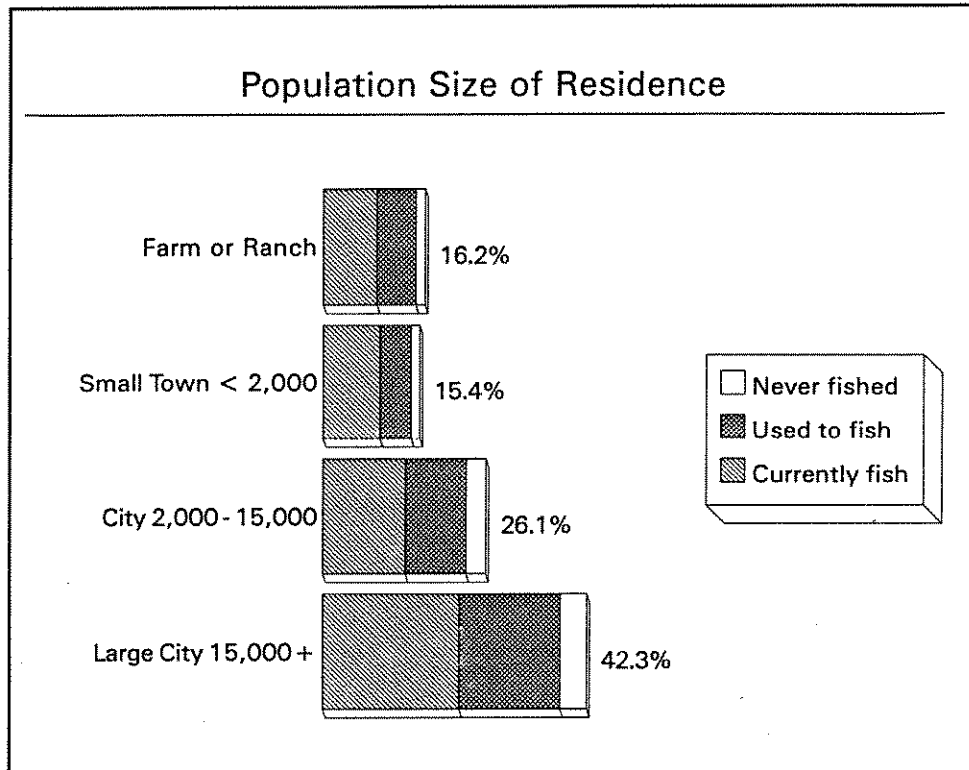
Males comprised 55.2% of our sample, while statewide they account for 49.0% of the residents 15 years of age and older.

The "used to fish" and "never fished" groups had more females than males (59% vs 41% and 85% vs 15% respectively).



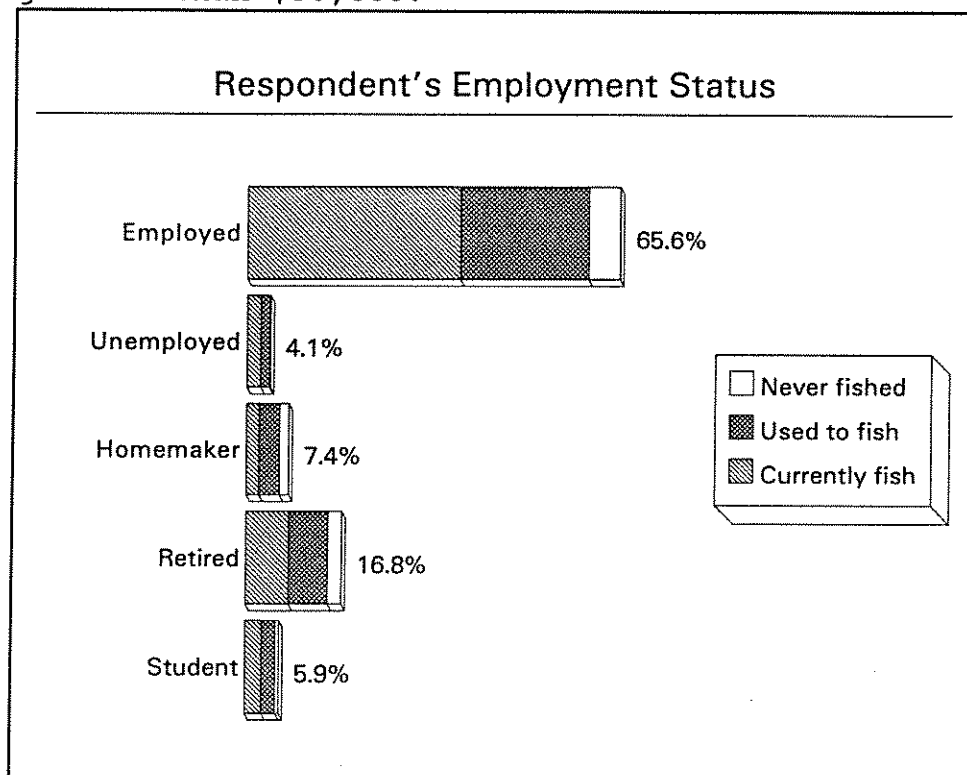
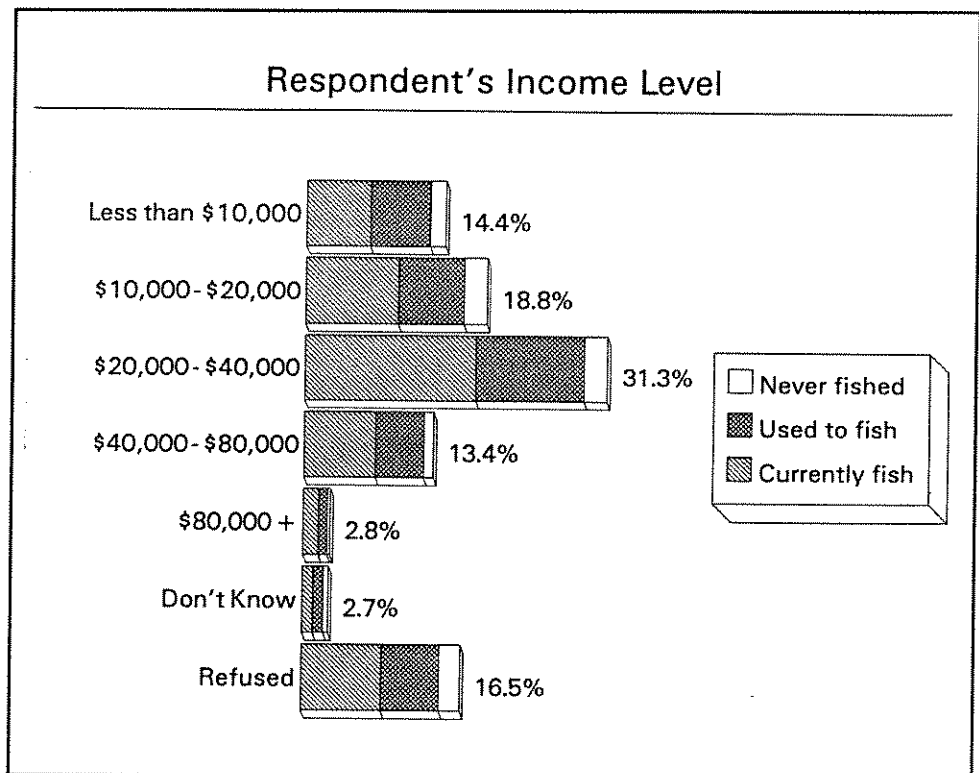
# Size of community of respondents

The majority of Montana residents 18 years and older live in cities. Large cities (15,000 people and greater) hold 42.3% of these people while smaller cities (2,000 - 15,000 people) hold 15.4% of the population. Ranches and farms comprise 16.2% of the population of 18 years and older. The "currently fish", "used to fish" and "never fished" groups were evenly distributed among the population size groupings.



# Income level and employment status

Fishing was enjoyed by all income levels. The percentage of anglers was evenly distributed amongst all income levels. Residents 18 years and older making less than \$10,000 a year in total household income comprised 14.4% of the sample. Those making between \$10,000 and \$20,000 accounted for 18.8% of the sample, while the income group of \$20,000 - \$40,000 comprised the largest percentage at 31.3%. 2.8% of residents had a household income greater than \$80,000.

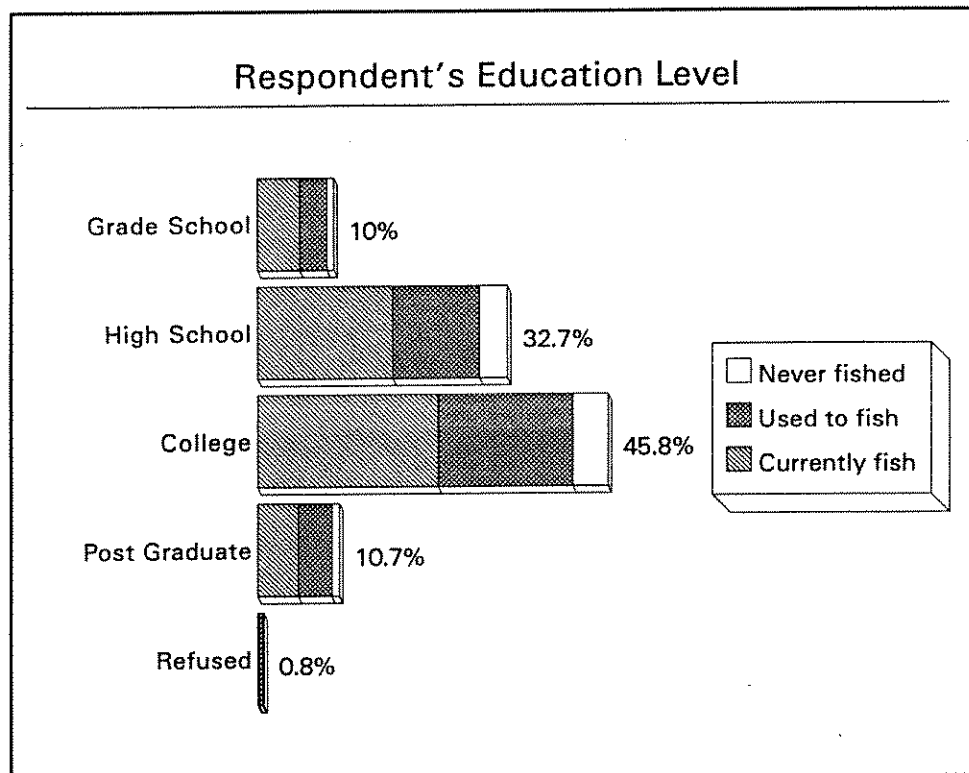


Employment status didn't seem to affect fishing. Anglers were proportionally split amongst all employment groups. Over 65% of Montanans 18 years and older were currently employed. 17.3% were retired while only 4.2% were unemployed at the time of the survey. Employment status didn't have any bearing on people fishing, stopping fishing or never fishing. The homemaker category was lower in the "currently fish" category. This is

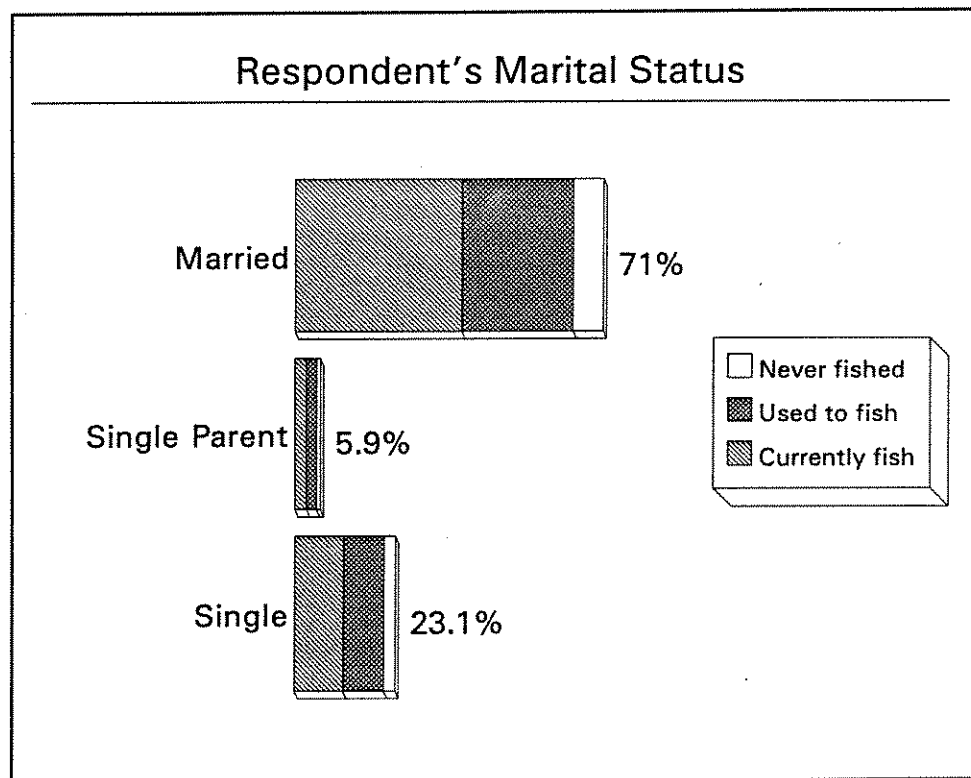
more a reflection of the gender difference than of employment status in regards to fishing.

## Education level

Education level played no role in whether a person fished. Nearly half of the people in each education level fished (49.6% - 54.9%). Montana has a fairly high education level with 45.8% of respondents 18 years and older having some college education or receiving a degree from a college.



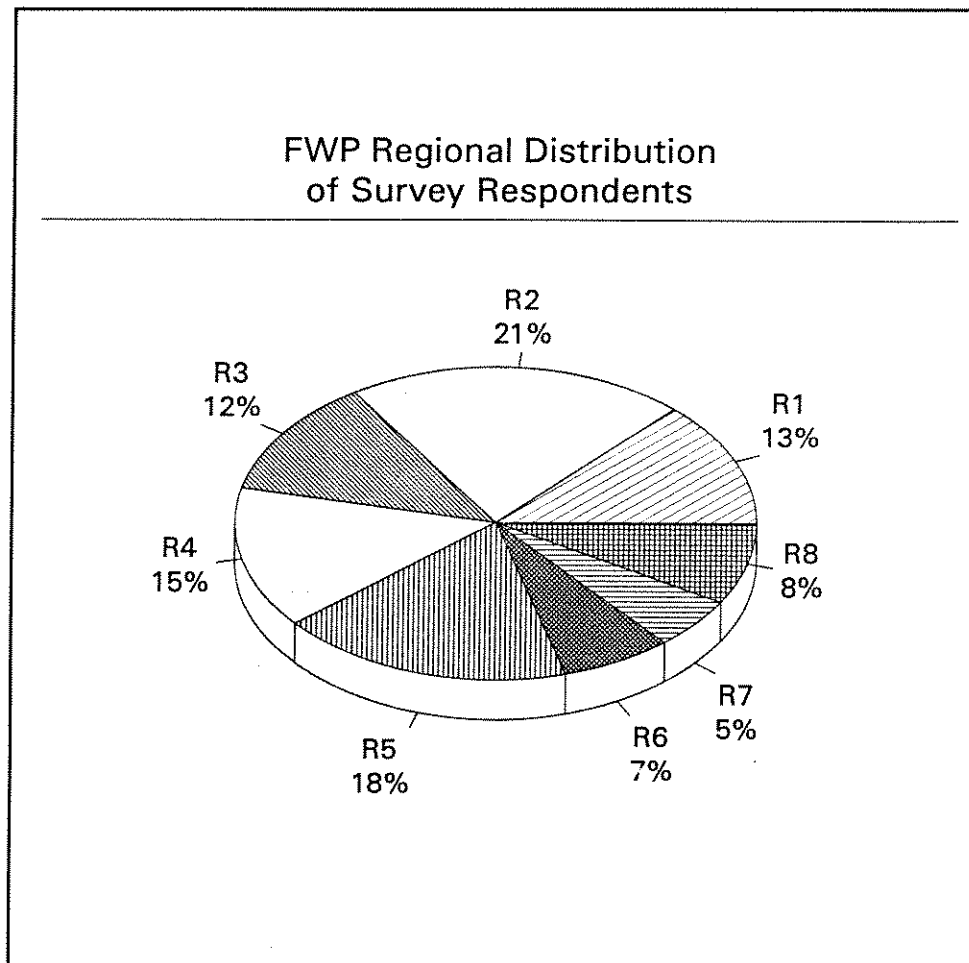
## Marital status



Married people were slightly more likely to go fishing than singles or single parents (54% vs 48.6% and 46.4% respectively). Overall single parents make up only 5.9% of the population of Montanans 18 years and older. 71% of the respondents were married, while the remaining 23.1% were single.

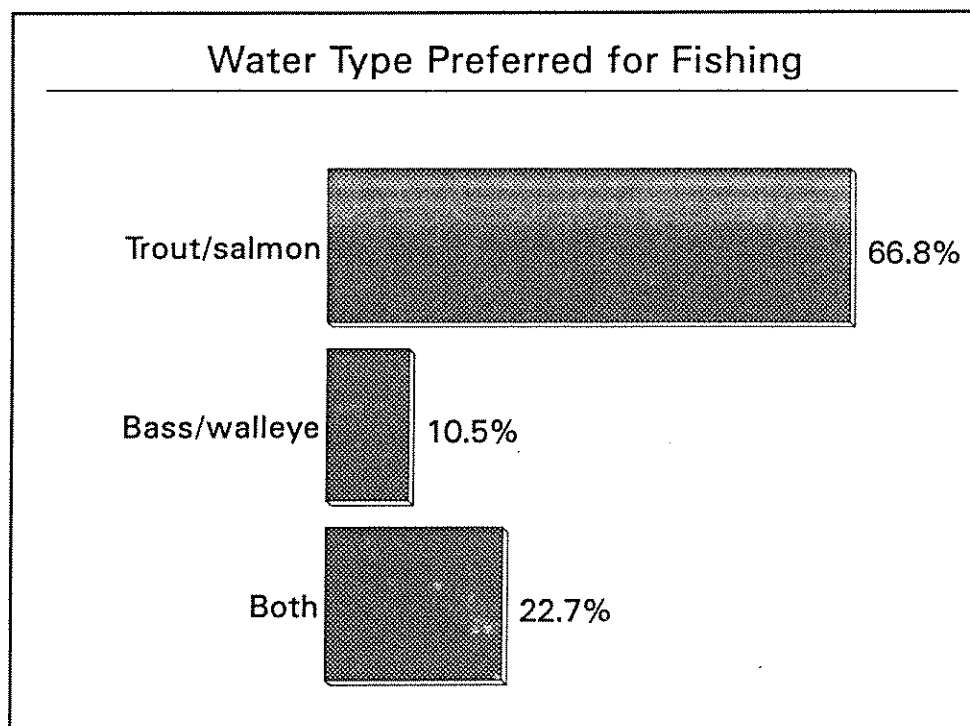
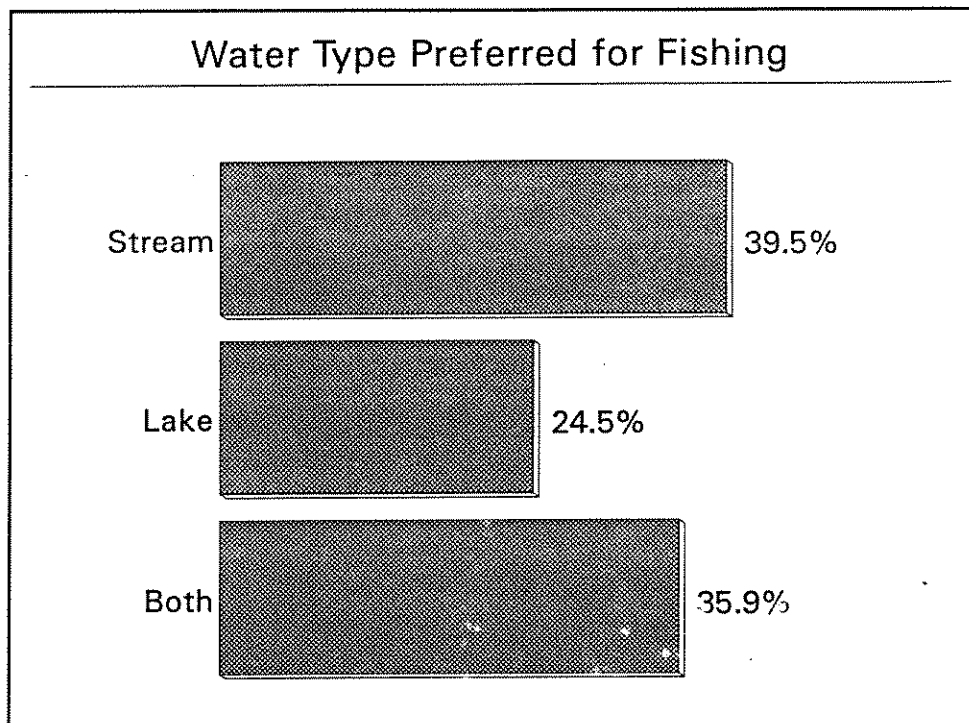
# Regional distribution

Fish, Wildlife and Parks regional distribution of respondents shows a range from a high of 21% in region 2 (Missoula) to a low of 5% in region 7 (Miles City). See map in appendix for regional boundaries.



# Current anglers

Respondents were considered current anglers if they had fished within the last two years. Of Montana residents 18 years and older, 52.3% said they had fished. Current anglers prefer streams over lakes (39.5% versus 24.5% respectively), with 35.5% having no preference. Males preferred streams over lakes (43.6% vs 19.33%), while females preferred lakes over streams (38.6% vs 28.5%)



Overall anglers preferred trout/salmon type waters (66.8%) to bass/walleye type waters (10.5%).

There was no difference in preference by sex.

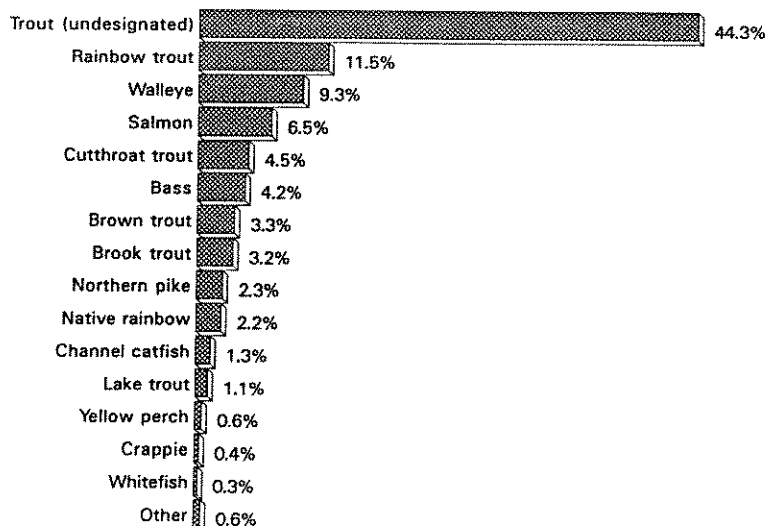
When restricted to fishing for only one species, respondents said they preferred trout (undesignedated) 44.3% of the time. Rainbow trout was next with 11.5%.

All totaled, cold water species accounted for 81.4% of the species preferred while the remaining 18.6% was warm/cool water species.

Fishing is a social event with 85.4% of all fishing trips involving family and friends. Males were more likely to go fishing alone.

95.6% of female's trips involve family and friends, while 81.6% of the male's trips involved family and friends.

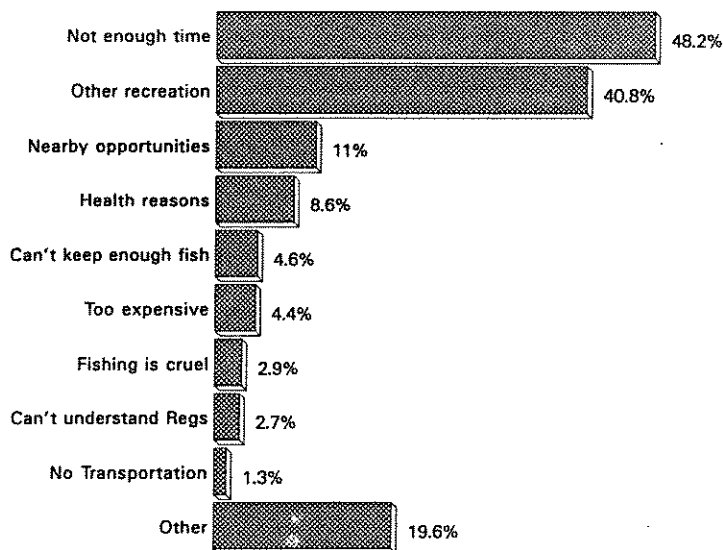
### Single Fish Species Preference



\*Other includes - sculpin, sunfish, burbot, paddlefish, sucker, and white sturgeon

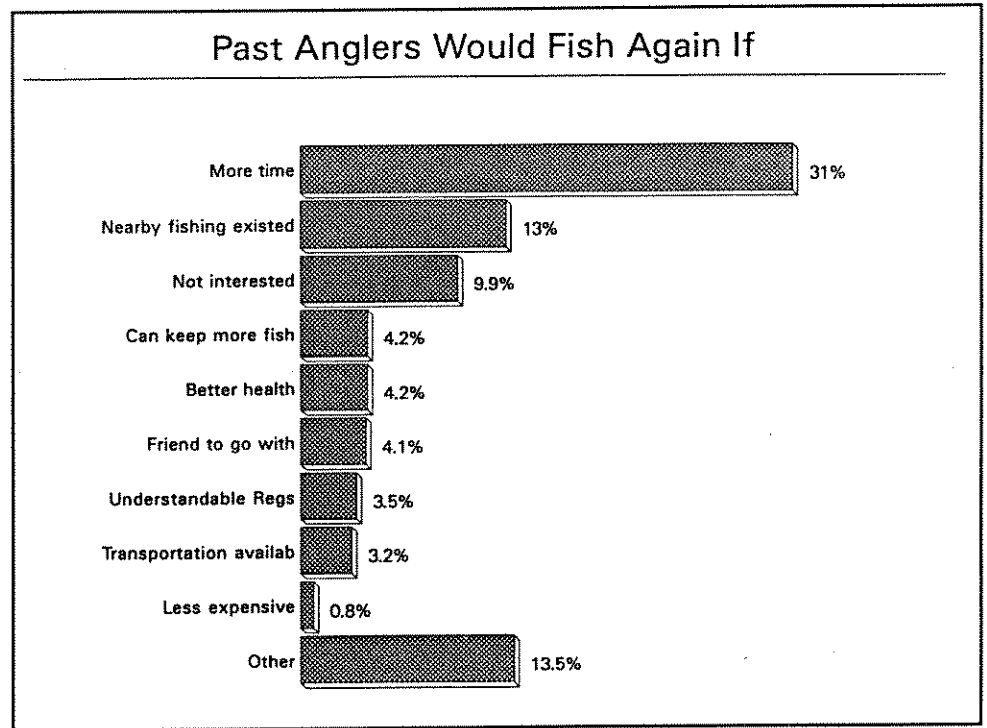
## Used to fish

### Reasons For No Longer Fishing



Respondents who used to fish but had not done so in the last two years were asked why they had stopped fishing. The number one reason given by 48.2% of those people 18 years and older was not enough time. Other recreation was next most frequent response with 40.8%. Lack of nearby opportunities and health problems accounted for 11% and 8.6% of the responses respectively. Respondents could give more than one reason so the percentages do not add to 100.

These same respondents were then asked what it would take to get them to fish again. 31% said "more time", 13% said they would fish again if nearby opportunities existed and 9.9% said they just were not interested in fishing. Again the percentages do not add to 100 since respondents could give more than one response.

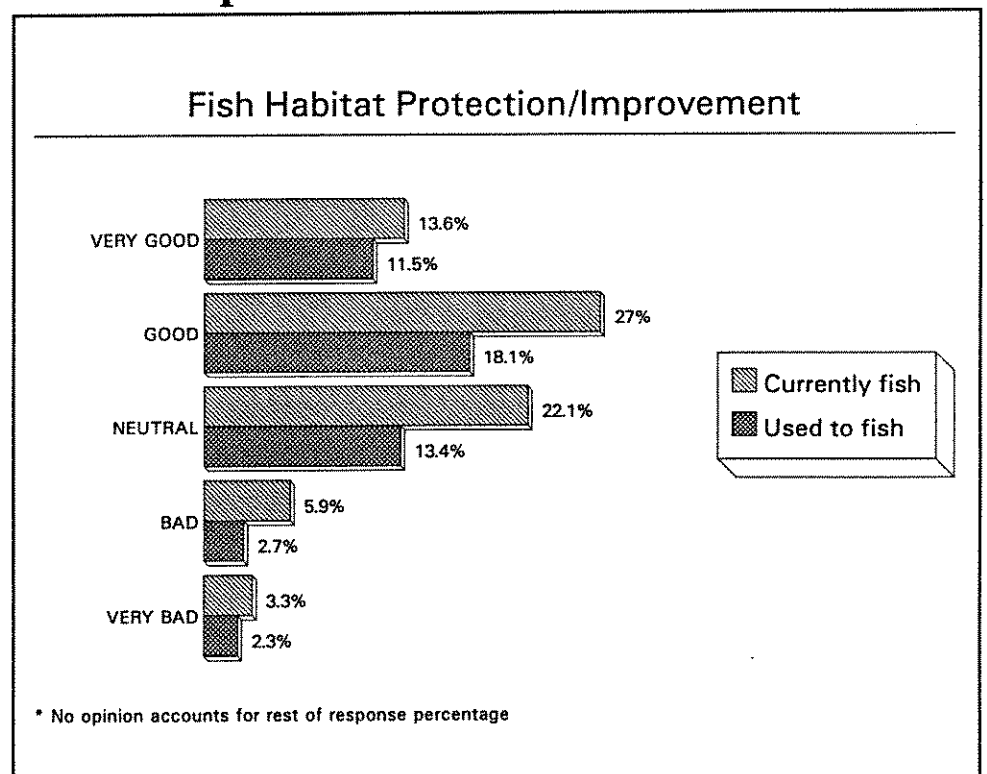


## Division ratings

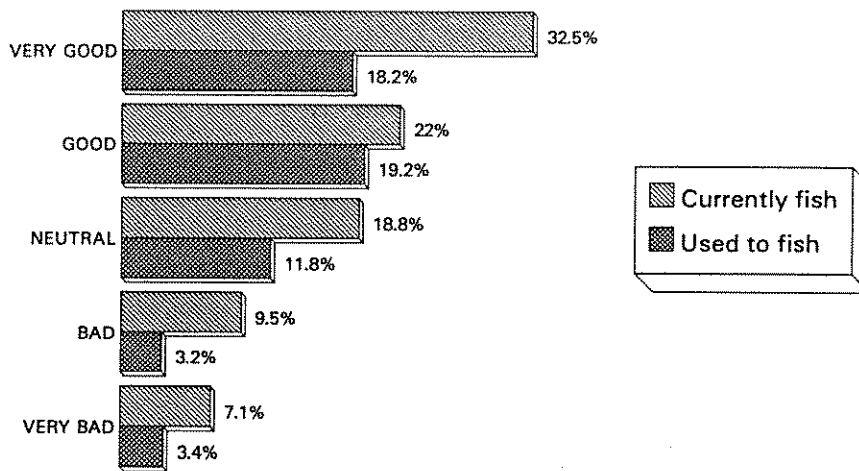
Both "currently fish" and "used to fish" groups were asked to rate the Department on fishing related topics.

### Fish habitat protection and improvement

Current and past anglers were asked to rate the fisheries division on how well it was doing in the area of fish habitat protection and/or improvement. Current anglers rated the division higher in all categories than past anglers. 40.6% of current anglers and 29.6% of past anglers thought the division was doing a good/very good job in this area. 9.2% of the current anglers and 5% of the past anglers rated the performance as bad or very bad.



## Understandable Fishing Regulations

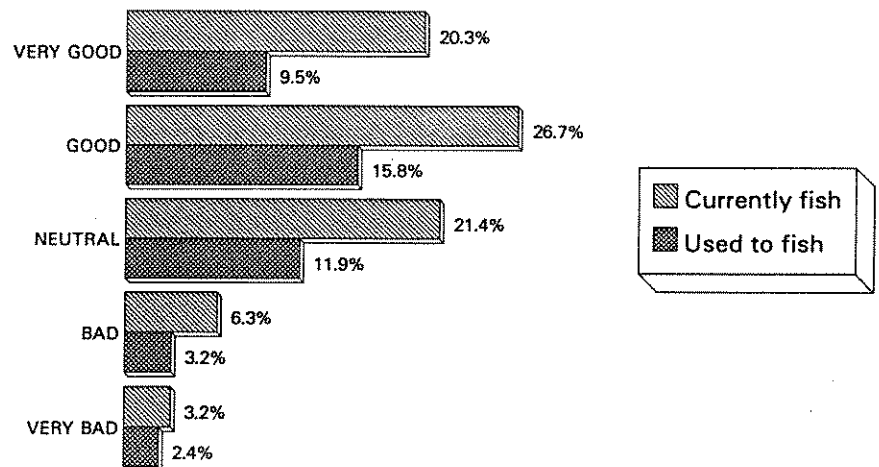


\* No opinion accounts for rest of response percentage

54.5% of the current anglers and 37.4% of the past anglers gave the division good or very good marks when asked to rate the the division on providing understandable fishing regulations. 16.6% of the current anglers said the division did a bad or very bad job with making the fishing regs understandable, while 6.6% of the past anglers felt this way.

When asked if current fishing regulations work, a majority of past anglers had no opinion (57.2%). 25.3% of past anglers rated the division good or very good on using regulations that work. Bad/very bad accounted for 5.6% of the responses from past anglers. 47% of current anglers rated the divisions ability to use regulations that work as good or very good, while the ratings of bad and very bad accounted for 9.5% of the responses.

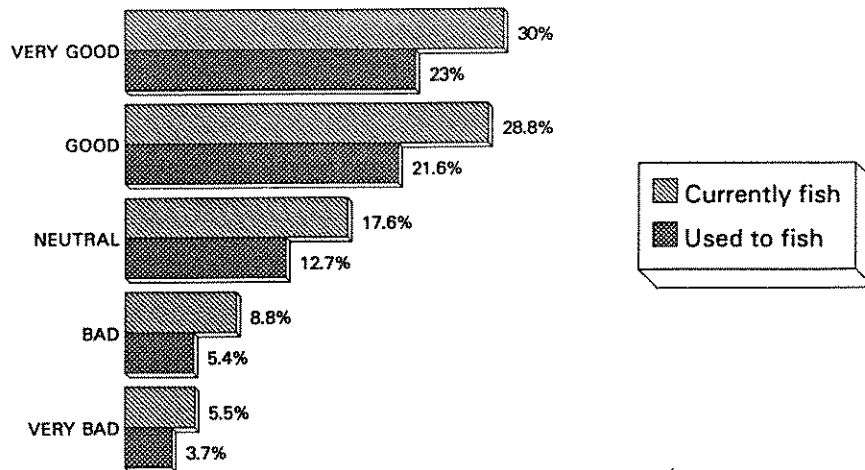
## Regulations That Work



\* No opinion accounts for rest of response percentage



### Providing Adequate Fishing Access

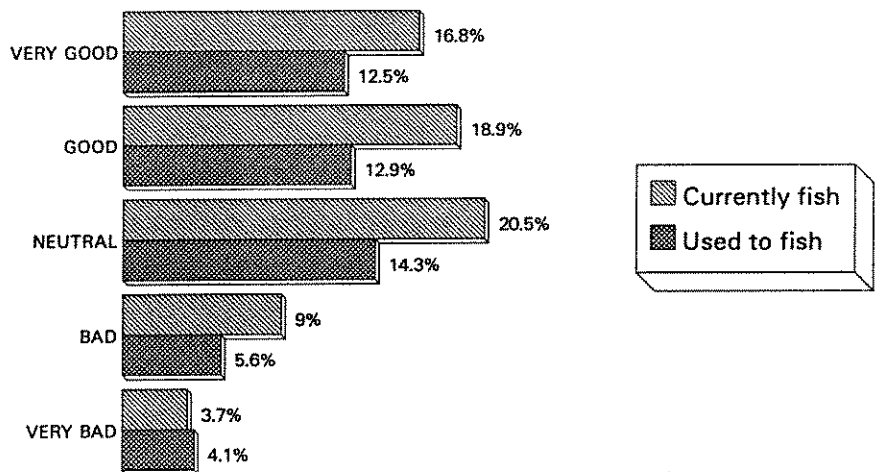


\* No opinion accounts for rest of response percentage

When questioned about whether the division provides adequate access for fishing, 58.8% of the current anglers and 44.6% of the past anglers rated it as good or very good. Bad or very bad accounted for 14.3% and 9.1% of the responses from current and past anglers respectively.

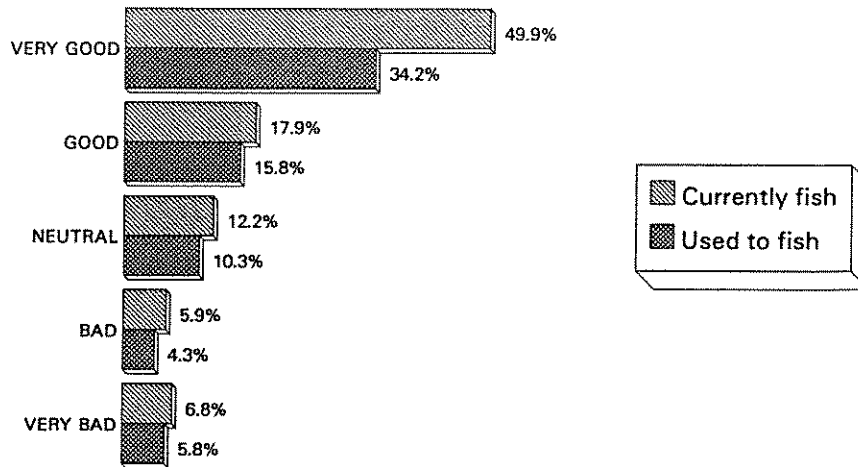
37.5% of current anglers said the division was doing a good/very good job in providing fisheries education. 12.7% felt the division was doing bad/very bad job in this area. The percent of past anglers who felt the division was doing a good/very good job in providing fisheries education was 25.4%. The percent of past anglers who felt the division was doing a bad/very bad job in this area was 9.7%.

### Providing Fisheries Education



\* No opinion accounts for rest of response percentage

### Value of a Fishing License

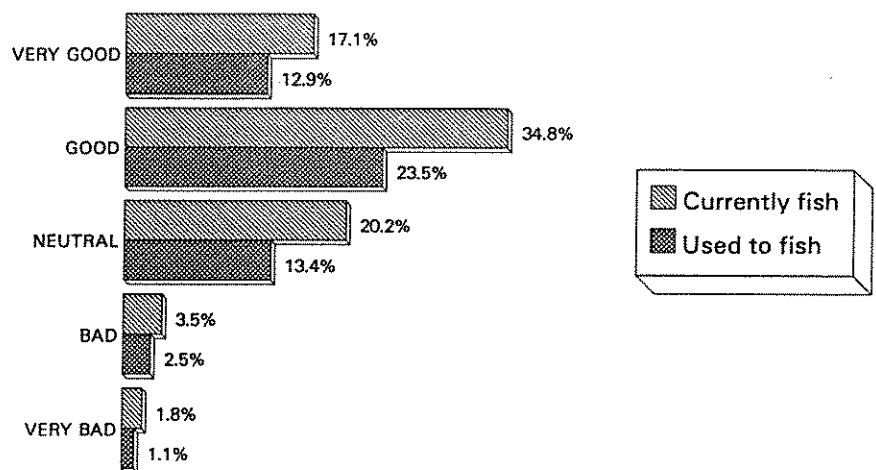


\* No opinion accounts for rest of response percentage

When asked to rate the value of the fishing license as to whether it is a good buy, 67.8% of current anglers and 50% of past anglers rated it as good or very good. The percent of current and past anglers that felt it was a bad or very bad buy was 12.7% and 10.1% respectively. Interestingly, the interviewers said that some people rated the license as a bad value because it was too cheap.

When asked to rate the division on its overall performance, good and very good accounted for 51.9% and 36.5% of the responses from current and past anglers respectively. The bad and very bad was the lowest of all responses with 5.3% and 3.6% from current and past anglers respectively. Overall the angling public, both current and past, feel the division is doing a good job.

### Overall Performance

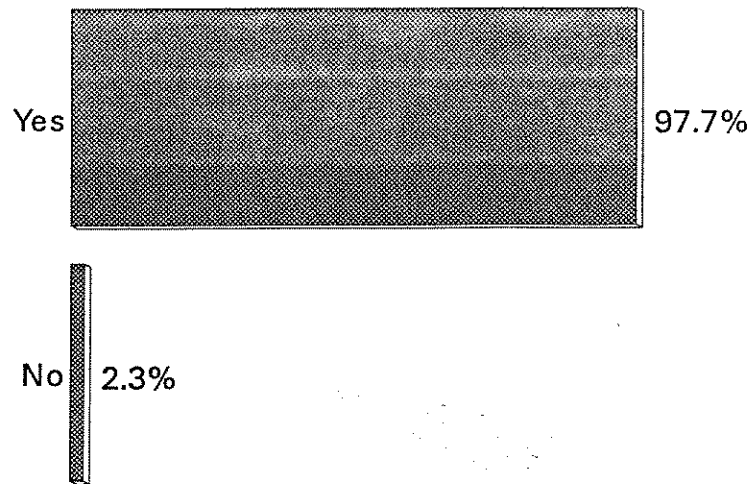


\* No opinion accounts for rest of response percentage

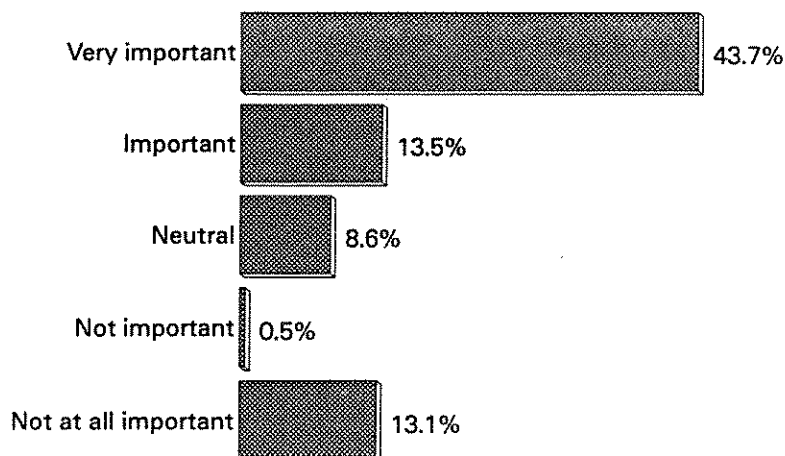
# Nonangling responses

Nonanglers were asked a series of questions about their attitudes towards angling. When asked if fishing should be available in the future, even though they didn't fish, 97.7% felt it should be available, with only 2.3% feeling it should be banned.

## Should Fishing Be Available in the Future People Who Never Fished



## How Important Is Public Access for Water Based Recreation People Who Never Fished



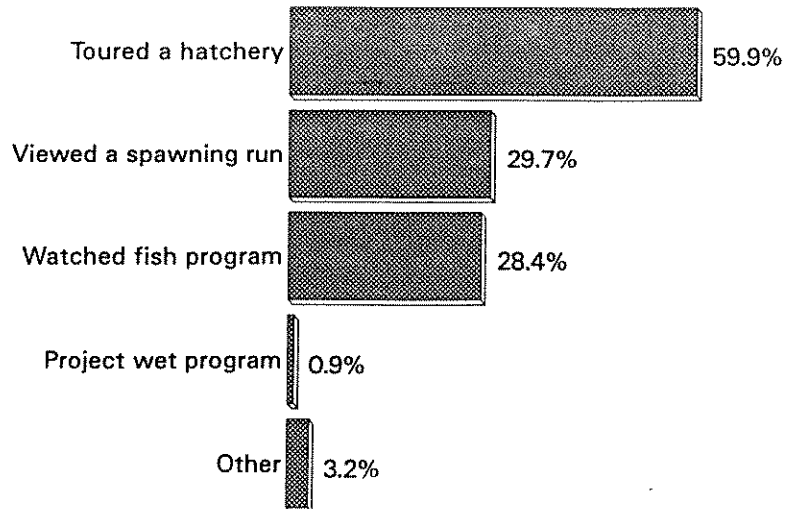
\* No opinion accounts for rest of response percentage

When asked how important public access was for water based recreation, 57.2% felt it was important or very important. Only 13.6% felt it was not important. Of those feeling this way, 62.1% were 62 years of age or older and 89.7% were female.

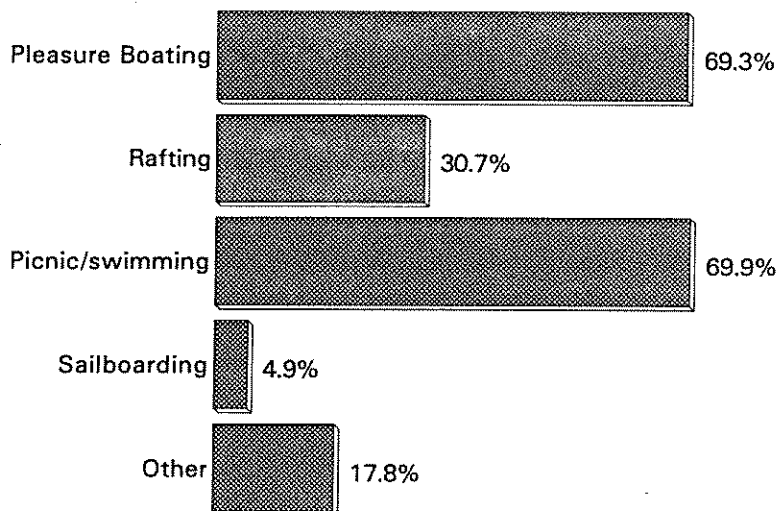
Nonanglers were asked if they had participated in any fish related activities; 59.9% had toured a hatchery, 29.7% had viewed a spawning run, and 28.4% had watched a program that was related to fishing.

Multiple responses by individuals account for the percentages not adding to 100.

### Participation in Fish Related Activity People Who Never Fished



### Participation in Other Water Based Activity People Who Never Fished

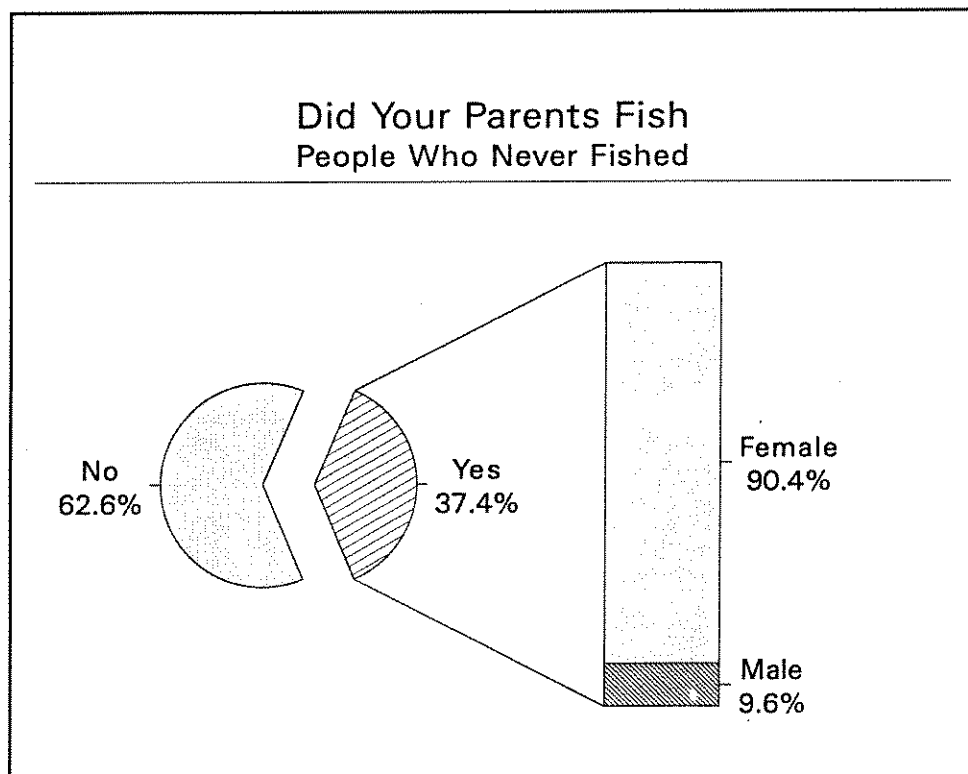
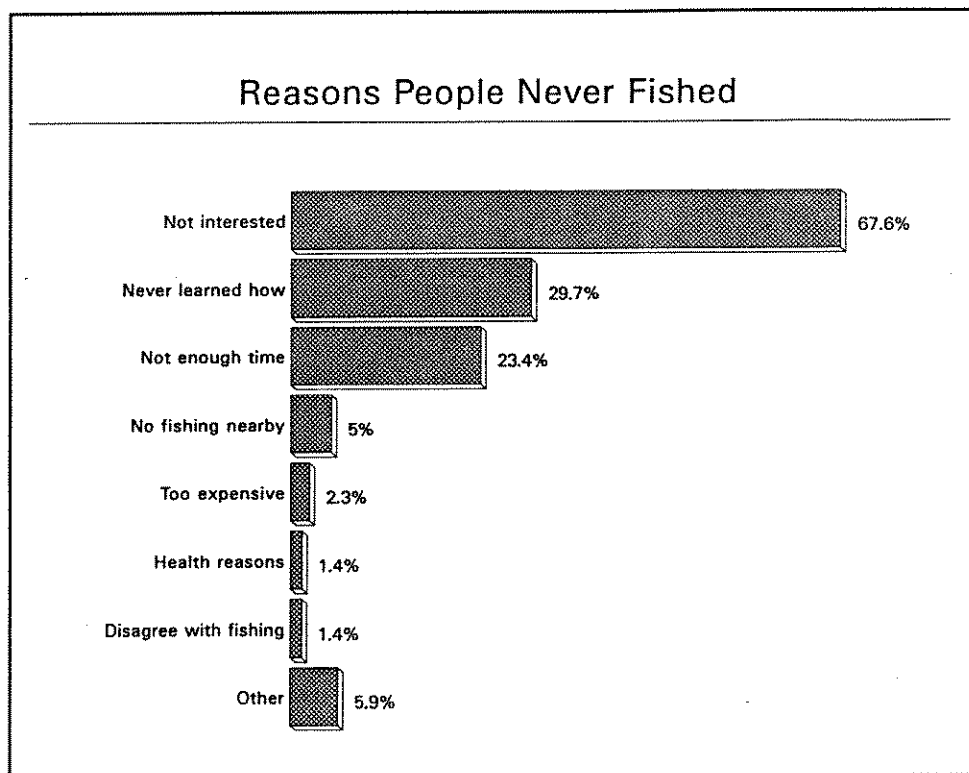


Nonanglers were also asked if they had participated in any water based recreation activities. 69.3% had gone pleasure boating, 69.9% had gone swimming or picnicking near water, and 30.7% had gone rafting.

Again the percentages do not add to 100 because of multiple responses.

Nonanglers were asked as to why they had never gone fishing. The reason given by 67.6% of the people was they were not interested in fishing. 29.7% said they never learned how to fish and 23.4% said they did not have enough time.

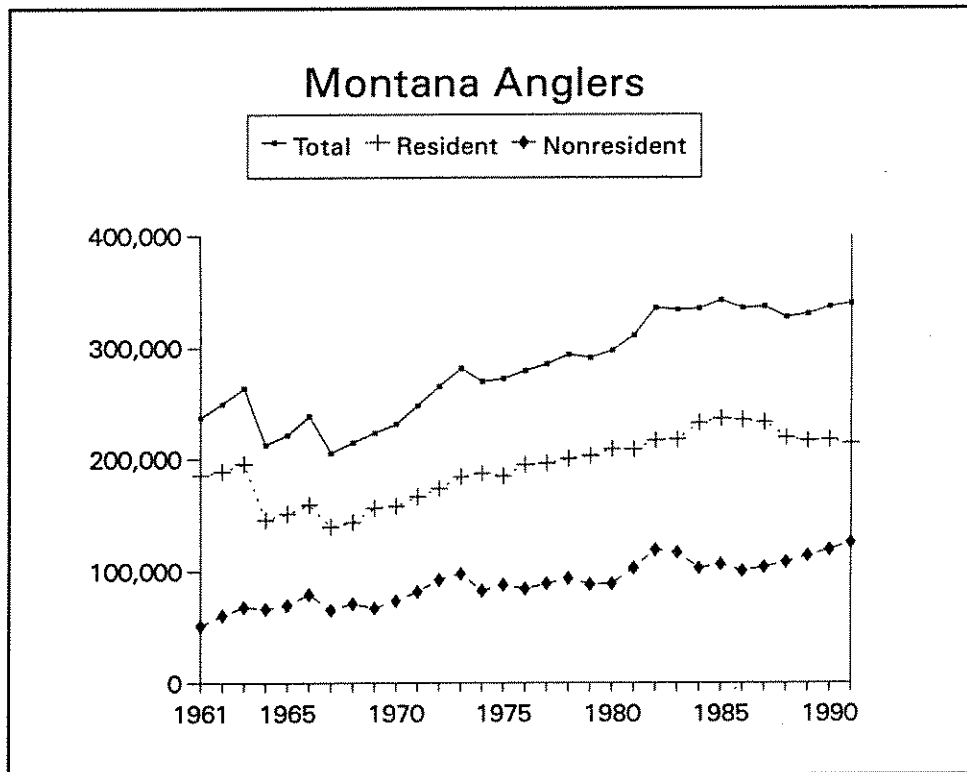
Again multiple responses account for the percentages not adding to 100.



Fishing appears to be a sport passed from generation to generation. When asked if either of their parents had fished, 62.6% said they did not. Of those whose parents fished but they did not, 90.4% were female.



# Conclusions & Recommendations



The General Fisheries Survey was conducted in response to data showing a static or declining number of anglers nationwide. Data for Montana showed the resident angler numbers were declining while the nonresident angling numbers were increasing to maintain an overall static number of anglers from year to year. Fisheries Division Administrators wondered why the resident angling numbers were decreasing and what socio-demographic

characteristics might be different from national studies.

The results of the resident survey indicates that most individuals (91%) had started fishing by the time they were 18 years old and 77% had fished by the age of 11. Females comprised 85% of the group that had never fished and 59% of the group who used to fish. Only 6% of Montanans are single parents and a little more than half of this group have never fished or don't currently fish.

The group of respondents who used to fish were asked why they no longer fish. The two overwhelming reasons were 1) they did not have enough time and 2) other recreational activities were a higher priority. This group was then asked what it would take to get them to fish again. 31% said they would need more time, but a fair number (13.5%) indicated they might start again if nearby opportunities existed. It might be possible to entice some of this group back into fishing through informational and educational programs.

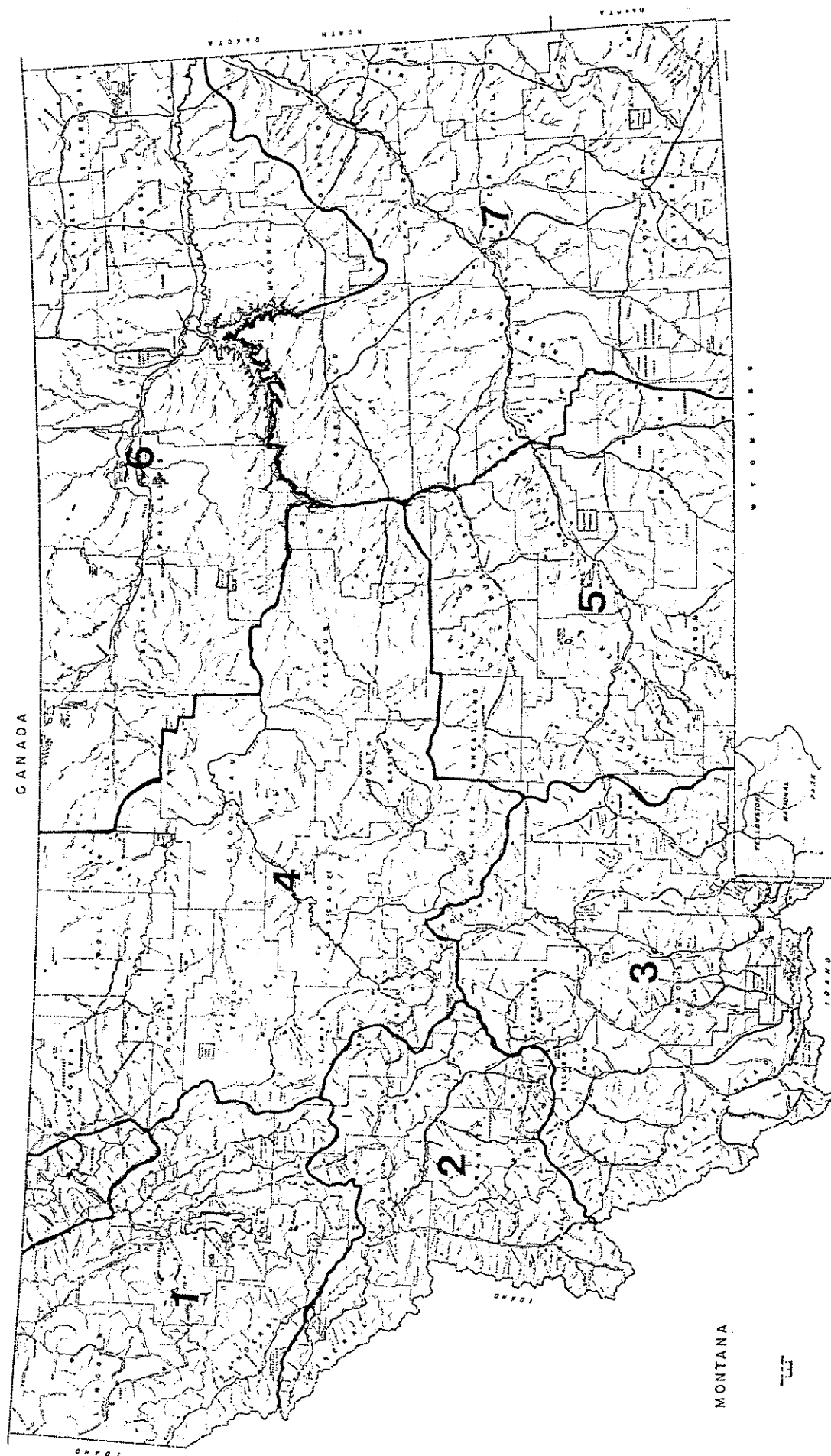
Current anglers, those respondents who had fished in the last two years, preferred to fish streams and trout/salmon types of waters. Trout/salmon was the main single "species" with 81% of respondents seeking this fish if they could only fish for one "species".

Current and past anglers were asked to rate the Fisheries Division's performance in a number of areas from the value of a fishing license to fishing access and fisheries education. In most cases, a majority of current anglers felt the division was doing a "good" or "very good" job. When asked about overall performance, only 5.3% of current anglers felt the Fisheries Division was below average.

Why are resident angler numbers slightly declining or remaining static? To answer this question, one has to look at either those anglers that had stopped fishing or those residents that had never fished. From the anglers that had stopped fishing, the main reasons given were 1) no time for fishing and 2) other recreation was more important. From the residents that had never fished, the main reasons they had not started were 1) just not interested in fishing and 2) never learned how. From these responses, it appears there is a reasonable chance of increasing angling numbers with educational and recruitment efforts.

The information provided by this survey will help direct the Fisheries Division's management efforts and show where to focus their educational/recruitment efforts. The survey results are a snapshot in time of resident attitudes and perceptions. To provide direction in the long term, this type of survey should be conducted every 5 years.





Appendix. Map of the State of Montana showing the Department of Fish, Wildlife & Parks Regional boundaries.

