

Survey of Washington State Steelhead Anglers

Note: Survey components highlighted with **this green** are contingent on the respondent's answers to prior questions

I. First contact (mailer)

Hello Washington State steelhead angler,

NOAA Fisheries is conducting a study to evaluate how anglers value recreational angling opportunities in Washington State. Your participation will help scientists and fisheries managers to better understand how to balance recreation and conservation goals in Washington rivers. The survey takes around 25 minutes to complete. We are including \$2 to thank you in advance for taking the survey. Your participation and honest feedback are greatly appreciated.

To complete the survey, please go to the survey website. When prompted, enter your survey access code.

Survey website: www.XXXsteelheadsurveyXXX.gov

Access code: XXX-XXX-XXX

If you do not have access to the internet, please call (206)-XXX-XXX and we will send you a paper copy of the survey to complete and return.

Public reporting burden for this collection of information is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Robby Fonner, NOAA Fisheries, Northwest Fisheries Science Center, 2725 Montlake Blvd. East, Seattle, WA 98112-2097. To support the anonymity of this research, no participant names will be included on the survey document. Participant names will be tracked in a separate database to code participants for protection during data analysis, confirm receipt of a survey from each individual, and avoid duplication of responses. Documents containing names will be kept in a locked container such as a lock box in the field or a locked file cabinet in the office setting. All electronic versions will be kept under password protected systems, accessible only by study researchers. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

II. Online questionnaire part one

SCREENER

Q1:

How many steelhead fishing trips did you take in Washington state in the past twelve months?
_____(# of trips)

→ If respondent answers one or more, proceed to Q1A. If respondent answers less than one, skip ahead to Part 2.

Q1A:

How many of those trips were for winter-run steelhead?

FAVORITE RIVERS

Q2:

How many rivers have you fished for steelhead over the past three years?

→ If respondent answers three or more rivers proceed to Q2A and select the three rivers you fished in most frequently.

→ If respondent answers one or two rivers, select those one or two rivers in Q2B.

Q2A:

Please review the following list of Washington steelhead rivers. Please select the three steelhead rivers you recall fishing most frequently over the past three years.

Q2B:

Please review the following list of Washington steelhead rivers. Please select the **{one, two}** steelhead rivers **s** you reported fishing over the past three years in the previous question.

River list:

Puget Sound

- Skagit system (including Sauk and Cascade rivers)
- Snohomish
- Snoqualmie
- Skykomish
- Nooksack
- Stillaguamish

Coastal

- Satsop
- Humptulips
- Wynoochee
- Calawah
- Chehalis

Columbia

- Cowlitz
- Kalama
- Lewis
- Wind
- White Salmon

Olympic Peninsula

- Sol Duc
- Bogachiel
- Hoh
- Quinault

Eastern slope

- Klickitat
- Tucannon
- Wenatchee
- Okanogan
- Methow
- Walla Walla
- Washougal
- Snake

Other

- Other _____
- Another other _____

Q3:

Now think back to your steelhead fishing trips over the last twelve months at each of the rivers you selected in the previous question.

i) How many trips did you take to **favorite river** in the last twelve months? ____ (# of trips)

How long does it take you to reach the access site on **favorite river**?
____ (# of hours) ____ (# of minutes)

How many days do you typically spend fishing on a trip to **favorite river**? ____ (# of days)

How many hours do you spend fishing each day? ____ (# of hours)

How many hatchery steelhead did you catch on these trips? ____ (# of steelhead)

How many wild steelhead did you catch on these trips? ____ (# of steelhead)

ii) How many trips did you take to **second-favorite river** in the last twelve months? ____
(# of trips)

How long does it take you to reach the access site on **second-favorite favorite river**?
____ (# of hours) ____ (# of minutes)

How many days do you typically spend fishing on a trip to **second-favorite favorite river**?
____ (# of days)

How many hatchery steelhead did you catch on these trips? ____ (# of steelhead)

How many wild steelhead did you catch on these trips? ____ (# of steelhead)

ii) How many trips did you take to **third-favorite river** in the last twelve months? ____
(# of trips)

How long does it take you to reach the access site on **third-favorite favorite river**?
____ (# of hours) ____ (# of minutes)

How many days do you typically spend fishing on a trip to **third-favorite favorite river**?
____ (# of days)

How many hatchery steelhead did you catch on these trips? ____ (# of steelhead)

How many wild steelhead did you catch on these trips? ____ (# of steelhead)

Q4:

Based on your prior fishing experiences, rate each of these rivers according to their natural beauty, ease of accessibility (e.g. accessibility of bank fishing or boat launch), and level of congestion (i.e. crowding on the river):

Note: The river-characteristic rows will be shown to respondents one at a time.

	Favorite River	Second Favorite River	Third Favorite River
Natural Beauty (1-not naturally beautiful ; 5-very naturally beautiful)			
Ease of accessibility (1-very difficult to access; 5-very easy to access)			

Level of congestion (1-very congested; 5- no congestion)			
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ANGLER TRIP CHARACTERISTICS

Q5:

What types of gear do you use to fish for steelhead?

Bait: {YES / NO}

Artificial lures: {YES / NO}

Artificial fly: {YES / NO}

Which method do you use most frequently? {BAIT/LURE/FLY}

Q6:

Do you typically fish from shore or from a boat? (note: answer "boat" if you typically use a boat to access sites where you fish from the bank)

{SHORE/BOAT}

→ If respondent answers BOAT, proceed to Q6A. If respondent answers SHORE, skip ahead to Q7.

Q6A:

If boat, do you own the boat? {OWN/FRIEND/GUIDE/OTHER}

Q7: On steelhead fishing trips where you spend the night, is steelhead fishing typically the main purpose of the trip? {YES/NO}

Note: Q7 only asked for respondents who say they take overnight trips in Q3

Q8:

Do you typically go steelhead fishing alone or with other people? {ALONE/WITH OTHERS}

→ If respondent answers WITH OTHERS, proceed to Q8A. If respondent answers ALONE, skip ahead to Q9.

Q8A:

If with other people, many other people typically go on steelhead fishing trips with you?

{1/2/3/4/5+}

Q9: How much money do you typically spend during an entire steelhead trip in each of the expenditure categories below? Please report typical expenditures related to an entire fishing trip away from home, not just the time you spend fishing.

Fishing tackle, gear, and bait (e.g. lures, flies, eggs, shrimp, leader, weights, etc.) \$_____

Lodging at motels, cabins, or campgrounds \$_____

Note: Q7 only asked for respondents who say they take overnight trips in Q3

Food, drink and refreshments \$_____

Public transportation (e.g. airplane, train, bus, car rental, ferry) \$_____

Parking, access, and boat launching fees \$_____

III. Online choice experiment

Note: Each respondent will be asked to make a series of about ten discrete choices between hypothetical fishing trips using the format shown below.

INSTRUCTIONS

“Imagine you are considering taking a steelhead fishing trip and have narrowed your decision between the {respondents favorite rivers from Q2} rivers. Further assume that the management of these rivers, and the abundance of steelhead in the rivers may change compared to your current expectations.

You will now be presented with a series of steelhead trip-taking scenarios, describing the conditions at each of the three rivers you most commonly use. For each scenario, select the steelhead-fishing trip you would take, or if you would not take a trip under the listed conditions, select “Do not take a trip.”

As you make your decisions, keep in mind:

- That regulations prohibit the harvest of wild steelhead.
- To please read all of the information provided before making your selection.
- To consider each choice separately, without thinking about previous decisions.
- Your typical process for making steelhead fishing trip decisions, and the amount of time you have to spend fishing.

EXAMPLE CHOICE EXPERIMENT CHOICE

Trip characteristics	Favorite river	Second favorite river	Third favorite river	Do not take a trip
Catch rates for wild steelhead	Reported catch rate	Reported catch rate - 25%	Reported catch rate - 25%	
Catch rates for hatchery steelhead	Reported catch rate - 25%	Reported catch rate - 25%	Reported catch rate + 25%	
Gear restrictions	Fly only	Selective gear (single hook, barbless)	No restrictions	
Travel time to site	2.5 hours	1 hour	30 minutes	
Your choice (choose one)	[]	[]	[]	[]

IV. Online contingent behavior questions

INSTRUCTIONS

Please direct your attention to the table below:

- Row 1 contains information about your trips to the [selected rivers] over the past year.
- Row 2 contains the information about the fishing seasons on those rivers during the past year.
- Row 3 describes the expected fishing seasons on the rivers next year.
- **In Row 4, please enter the number of trips you expect to take next year, the season described by Row 3.**

EXAMPLE CONTINGENT BEHAVIOR CHOICE

	Trip Characteristics	Favorite river	Second favorite river	Third favorite river
Past steelhead season	Wild steelhead returning	XXX	XXX	XXX
	Hatchery steelhead returning	XXX	XXX	XXX
	Season length	XXX days	XXX days	XXX days
	Gear restrictions	Fly only	Selective	No restrictions
Reported trips		XXX trips	XXX trips	XXX trips
Next steelhead season (expected)	Wild steelhead returning	XXX	XXX	XXX
	Hatchery steelhead returning	XXX	XXX	XXX

	Season length	XXX days	XXX days	XXX days
	Gear restrictions	Selective	Fly only	No restrictions
Expected number of trips next season		(enter number)	(enter number)	(enter number)

V. Online questionnaire part two

OPINIONS AND ATTITUDES TOWARDS HATCHERIES

Q11:

Do you prefer to catch hatchery or wild steelhead? {HATCHERY/WILD/INDIFFERENT}

→ If respondent answered HATCHERY, proceed to Q11A, if answered WILD, proceed to Q12

Q11A:

Why do you prefer to catch hatchery steelhead?

{ALLOWED TO HARVEST/DON'T WANT TO DISTURB WILD FISH/OTHER}

Q12:

Hatcheries are necessary for providing adequate steelhead angling opportunities in Washington state {STRONGLY DISAGREE - STRONGLY AGREE}

Q13:

I would take more steelhead angling trips if opportunities increased for catching and harvesting hatchery steelhead {STRONGLY DISAGREE - STRONGLY AGREE}

Q14:

Opportunities for catching wild steelhead would likely increase over time if hatchery production was reduced in Washington {STRONGLY DISAGREE - STRONGLY AGREE}

DEMOGRAPHICS

Q15.

How long have you lived in Washington state? _____ (years)

Q16.

What is your current age? _____ (years)

Q17.

What is your annual household income, before taxes?

{\$0- \$25,000; \$25,001- \$50,000; \$50,001-\$75,000; \$75,001-\$100,000;
\$100,001-\$125,000; \$125,001-\$150,000; \$150,001-\$175,000; \$175,001-\$200,000;
More than \$200,000}

Q18.

What is your highest level of education?

{SOME HIGH SCHOOL; HIGH SCHOOL GRADUATE; SOME COLLEGE; ASSOCIATE'S
DEGREE; BACHELOR'S DEGREE; GRADUATE or PROFESSIONAL SCHOOL}

Q19.

What is your race?

{ASIAN; BLACK; WHITE; NATIVE AMERICAN; PACIFIC ISLANDER; OTHER}

Q20.

What is your ethnicity?

{HISPANIC; NON-HISPANIC}

Q21.

What is your marital status?

{SINGLE; MARRIED; DIVORCED}

Q22.

How many people are in your household? ____ (persons)

Q23.

Do you ever take off work to go on steelhead fishing trips? {YES/NO}

→ If respondent answers YES, go to Q23A then Q23B, if NO survey is complete

Q23A.

What type of time off work do you typically take to go on steelhead fishing trips?

{I TYPICALLY TAKE PAID TIME OFF; I TYPICALLY TAKE UNPAID TIME OFF; I TAKE PAID
AND UNPAID TIME OFF ABOUT THE SAME AMOUNT}

Q23B. How often do you take off work to go on steelhead fishing trips?

{ALMOST EVERY TRIP/ABOUT THREE OUT OF FOUR TRIPS/ABOUT HALF OF MY TRIPS/
ABOUT ONE IN FOUR TRIPS/ LESS THAN ONE IN FOUR TRIPS?}

END OF SURVEY