

North Alaska Peninsula Sockeye Salmon Test Fishery Operational Plan, 2013

by

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and

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April 2013

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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ABSTRACT

This document provides commercial salmon fishermen and buyers on the North Alaska Peninsula information and guidelines that will be used for the Bear River test fishery during 2013. Bear River, located 15 miles northeast of Port Moller, is the largest producer of sockeye salmon *Oncorhynchus nerka* in the Alaska Peninsula Management Area. In 2000, a test fishery program was started by the Alaska Department of Fish and Game to assess the marine abundance of sockeye salmon at Bear River following commercial salmon fishery closures. This program assists management staff with making commercial fishery management decisions regarding the sockeye salmon run to Bear River.

The 2013 Bear River test fishery will be operated when needed for management purposes using two vessels, one fishing north of Bear River and the other fishing south of Bear River. Each vessel will make at least four sets of standardized duration and location. The objectives of the test fishery are to assess the marine abundance of sockeye salmon in the vicinity of Bear River and secure revenues to cover test fishery expenses.

Key words: Bear River, Alaska Peninsula, sockeye salmon, *Oncorhynchus nerka*, test fishery, drift gillnet, commercial fishery, management

INTRODUCTION

This report documents the purpose, goals, and methods of a program designed to assess sockeye salmon *Oncorhynchus nerka* abundance in marine waters near Bear River. Commercial fishery openings in the Bear River Section of the Alaska Peninsula Management Area (Area M) are based on the achievement of the Bear and Sandy rivers' sockeye salmon interim escapement objectives. The Bear River sockeye salmon run is the largest in Area M and has two temporally distinct sockeye salmon runs. An early run begins in June and ends in late July, and a late run that begins in early August and ends in late September. The Bear River season-ending sockeye salmon escapement goal is 293,000–488,000 fish through September 15 (Witteveen et al. 2009). The late-run escapement goal is 117,000–195,000 sockeye salmon. Currently, the sockeye salmon escapement is counted through a weir located at the outlet of Bear Lake, approximately 15 river miles upstream from the ocean terminus of the river and at least 1–2 days travel time for a swimming salmon. When weather permits, aerial surveys of Bear River are used to assess the number of fish moving upstream. However, test fishing is the only means available to assess marine abundance of sockeye salmon in waters surrounding the mouth of Bear River due to consistently poor clarity in marine waters.

The test fishery program allows the Alaska Department of Fish and Game (ADF&G) to assess the marine abundance of sockeye salmon and improve the management of Bear River. Sockeye salmon sometimes build up around the mouth of Bear River during commercial fishery closures and may not move into the river where they can be counted at the weir or by aerial surveys. These fish may unexpectedly enter the river in numbers surplus to the escapement needs, which can result in lost harvest opportunity.

The ADF&G test fish program began in 2000 to determine salmon abundance and collect biological samples during commercial fishery closures. In 2001, changes were made to the test fishery at the request of the North Peninsula fishermen (North Peninsula Fishermen's Working Group), who suggested that the test fishery be expanded from one vessel to two vessels to more effectively cover the area around the mouth of Bear River. The modification to the program was approved and it increased the test fishing area around Bear River to be simultaneously sampled with one boat fishing north of the Bear River stream terminus and one fishing south of the river. The expanded project provides a more accurate index of the number of salmon in the area.

OBJECTIVES

BIOLOGICAL OBJECTIVES

- Provide a timely index of the sockeye salmon abundance within the marine environment in the vicinity of the mouth of Bear River,
- Reduce the potential for large surplus escapements into Bear River, thus maximizing the harvest of surplus sockeye salmon and decreasing the likelihood of surplus escapement, and
- Collect biological data from test fishery-caught salmon.

FISCAL OBJECTIVES

- Secure revenue to meet the needs for the test fish project: the sale of fish caught during the test fishery is expected to cover the costs for the daily charter (\$1,200/day/vessel), ADF&G personnel costs, and equipment necessary for the collection and processing of test fishery samples.

PROCEDURES

REQUIREMENTS FOR CHARTER CONTRACT

ADF&G test fishery charters will require a fully equipped drift gillnet vessel with a crew of at least two persons (skipper and deckhand). The skipper of each chartered vessel will be paid \$1,200 per day to make at least four sets. Skippers will provide necessary personnel to operate the boat and gear, and will furnish food, fuel, lubricants, and other supplies needed for daily operation of the vessel. Vessel operators must have a current Area M salmon drift gillnet permit and legal drift gillnet gear (200 fathoms in length and up to 70 meshes deep) for the Bear River Section. Vessels must have a working refrigerated seawater system that will maintain the quality of fish delivered to the processor. Each vessel must be able to accommodate one ADF&G employee for the duration of the charter (day trips).

Vessels must comply with United States Coast Guard (USCG) regulations including having survival suits aboard for the entire crew (ADF&G will provide a survival suit for the observer), a first aid kit, and firefighting equipment. Protection (hull) and Indemnity insurance including crew exposure in the amount of at least \$300,000 is required. The skipper of the vessel must have at least five seasons experience drift gillnet salmon fishing in the vicinity of Bear River.

ESTABLISHMENT OF CHARTER VESSEL SELECTION LIST

At the beginning of each season, ADF&G will establish and maintain a list of skippers wishing to participate in the program prior to the first charter. Enrollment will begin on May 15 and continue until the first test fishing date. Enrollment can be completed in person, by phone, or by radio with ADF&G staff in Port Moller (907-375-2716). Each skipper and vessel must meet the requirements listed in the previous section. ADF&G will conduct a random drawing to determine the sequence of the participants at the close of the initial enrollment period. This sequential list shall be maintained throughout the season and will be announced over VHF channel 72 prior to the first test fishery. Skippers drawn for the next day's test fishing will be notified over VHF channel 72 at least 10 hours in advance of a test fishery. If the vessel operator is unavailable to participate in the test fishery or cannot be contacted prior to 8:00 PM the night before the test

fishery, the vessel will be considered not available and the next skipper on the list will be chosen. If poor weather conditions exist, ADF&G and the skippers will jointly make the decision of whether the test fishery will occur. When weather prevents the test fishery from occurring, the scheduled skippers will be given the opportunity to be the designated charter skippers when the next test fishery occurs.

Additional permit holders may enroll after the initial enrollment is completed. However, these permit holders will be placed at the end of the established list in the order in which they are received. If the established list is completed and more vessels are needed for subsequent test fisheries, then vessels will be randomly chosen again from the entire list.

DETERMINATION TO TEST FISH

ADF&G staff will determine when test fishing will occur based on management requirements. A test fishery may occur in the marine waters surrounding the mouth of Bear River if escapement counts at the Bear River weir are below the interim escapement objectives following a commercial fishing period closure.

DRIFT GILLNET PROCEDURES

ADF&G staff will meet with the permit holders of the scheduled chartered vessels prior to departure from Port Moller. The vessels will depart prior to 8:00 AM or at an agreed time that maximizes fishing around stages of the tide, and will return to Port Moller after the required sets are completed. At least one ADF&G observer will be onboard each vessel from the time it departs Port Moller until it returns. Drift gillnet gear 200 fathoms in length will be set perpendicular to the beach and fished as during normal commercial catch operations. Each skipper must make prescribed drift gillnet sets in specific locations in the Bear River Section (Figure 1). One skipper will test fish north of the stream terminus, and the other south of the stream terminus. ADF&G staff onboard the chartered vessels will record the number of fish caught by species at each gillnet location (Figure 2). GPS coordinates where the net location is first set, the time the first buoy is placed in the water, the last buoy placed in the water, and the time the net is first started to be pulled as well as the time the entire net is onboard will be recorded. Approximate distances will be reported in nautical miles (nm). Standard sets are 15 minutes in duration (the time the full net is in the water until picking the net begins) to avoid a large harvest of fish. The actual time that the net is in the water will vary depending on fishing conditions and how long it takes to bring the full net back on board.

Each skipper will coordinate the timing of the first sets, and will be as follows:

	Skipper north of Bear River	Skipper south of Bear River
Set 1	½ nm north of the Bear River Church, ½ nm offshore and out	Southern part of the Whale Hole, ½ nm offshore and out
Set 2	At the Bear R. church, close to the beach	At the Whale Hole, close to the beach
Set 3	At the 1,000 yard northern regulatory marker, close to the beach	At the 1,000 yard southern regulatory marker, close to the beach
Set 4	Inside the 1,000 yard northern regulatory marker, close to the beach	Inside the 1,000 yard southern regulatory marker, close to the beach

Those sets close to the beach will be as close as possible to the shoreline considering sea and weather conditions. The skipper may recommend not fishing in a specific area based on weather (sea) conditions or other hindrances, such as known obstructions. All attempts will be made to reduce damage to fishing gear and equipment. Upon setting the gear, the net will be “run” to determine the approximate harvest of fish. Soak time will be 15 minutes in duration and commence after the entire net is in the water. If large numbers of sockeye salmon are observed being caught prior to the entire 15 minute soak time, then the gear will be pulled immediately to prevent excessive numbers of fish from being harvested. Additional sets beyond those scheduled or soak times longer than 15 minutes may be necessary to provide an indication of a potential build-up of sockeye salmon and recover the cost of the combined charters. Determination of the need for additional set times or locations will be made onsite by the ADF&G observers in consultation with the Area Management Biologist.

Upon completion of the final set, the skipper will transport the catch to a processor and will drop off ADF&G staff at the Port Moller dock. During delivery, sockeye salmon will be randomly selected for scale sampling per the guidelines in the Alaska Peninsula Catch Sampling Operational Procedures (Murphy and Wilburn 2013a). All fish will be sold and revenue will be deposited into the ADF&G Test Fish Account to pay for the charter and other costs.

MANAGEMENT IMPLICATIONS

ADF&G management staff in Port Moller will assess the results of each test fishery and will update fishermen via VHF radio during the next radio schedule. Management decisions will incorporate all available information, including daily catch rates prior to the fishery closure, aerial survey observations, daily escapement estimates, and the test fishery results. ADF&G will continue to incorporate other factors, as stated in the North Alaska Peninsula Management Plan (Murphy and Wilburn, *In prep*) to establish fishing times and areas. When a large salmon build-up is observed in the test fishery area, management actions may include opening the commercial fishery while still providing a closed water area to protect milling Bear River bound sockeye salmon. In the past, ADF&G has closed areas around Bear River to ensure escapement requirements were achieved while providing a harvest opportunity outside the protected areas. The test fishery program provides ADF&G with a marine abundance index and is intended to maximize fishing opportunities while minimizing surplus escapement.

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FIGURES

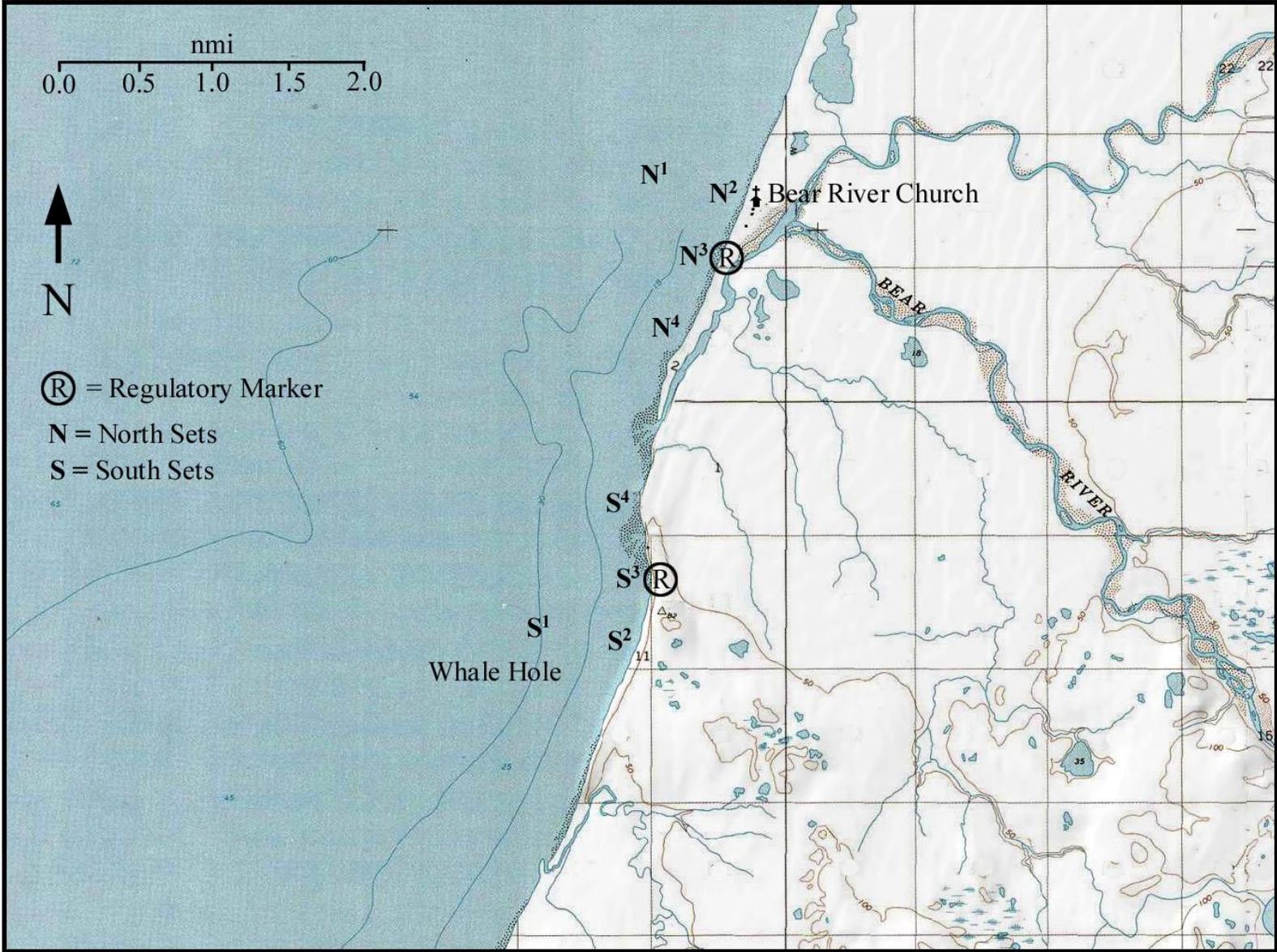


Figure 1.—Location of test fish drift gillnet sets in the vicinity of Bear River on the Alaska Peninsula.

BEAR RIVER TEST FISHERY

Date		Total Sockeye:
Port Moller High Tide Time		Total Sets:
Port Moller Low Tide Time		Total Soak Time:
Fishing Vessel Name & Skipper		
Mesh Size		
ADF&G Observer		

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SETS					
	1st	2nd	3rd	4th	
Location Description					
GPS Latitude					
GPS Longitude					
Amount Net Used					
Time first buoy in water					
Time last buoy in water					
Time Started Picking Net					
Time Full Net Out of Water					Total Soak
Total Soak Time (Time last buoy in the water through Time full net out of water)	_____hrs _____mins	_____hrs _____mins	_____hrs _____mins	_____hrs _____mins	
CATCH AMOUNTS					Totals
Sockeye					
Chinook					
Pink					
Chum					
Coho					
Starry Flounder					
Other Species:					
Other Species:					
Other Species:					
Other Species:					

Comments: _____

Figure 2.–Bear River test fishery data form.

**APPENDIX A. U.S. COAST GUARD NOTIFICATION OF
TEST FISHING**

In order to comply with Federal Department of Homeland Security requirements, a notification protocol has been implemented to inform the United States Coast Guard (USCG) of ADF&G test fishing operations on a chartered vessel. This is intended to reduce confusion over apparent fishing activity in closed waters or during closed seasons, and also in the possible proximity of sensitive areas such as around marine mammals.

The following information will be made available to the USCG Command Center prior to test fishing:

- The name of the vessel and registration numbers
- The call sign / captain's name
- The area of operations
- The date of operations
- The type of work being done

The information will be provided by Port Moller ADF&G personnel to a procurement specialist at ADF&G headquarters in Juneau, who will coordinate and forward the information to the USCG Command Center prior to any test fishing activity. The intent to test fish information will be sent to:

Dave Mitchell
Procurement Specialist III
Alaska Department of Fish and Game Headquarters
1255 W 8th St
Juneau, AK 99801

(907) 465-4131 phone
(907) 465-6181 fax
dave.mitchell@alaska.gov
