Alaska Salmon Fisheries

Annual Surveillance Report As Required Under the Marine Stewardship Council Program

2004 - 2005

Prepared for: Alaska Department of Fish and Game

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With technical assistance from:

Dr. Louis Botsford, University of California

Dr. D. Lee Alverson, Natural Resources Consultants

General Information

Certified Fisheries	Commercial Alaska Salmon Fisheries	Alaska, United States
Fishery Agency	State of Alaska, Department of Fish and Game	Capitol Office Park 1255 W. 8th Street P.O. Box 25526 Juneau, Alaska 99802-5526
Fishery Contacts	Doug Mecum	907-465-4210
Species	5 species of salmon	
MSC Registration No.	SCS-MFCP-F-0004	
Certification Date	October 2000	
Certification Expiration Date	October 2005	
Certification Body	Scientific Certification Systems, Inc. (SCS)	2000 Powell St., Suite 1350, Emeryville, CA 94040
Surveillance Team	Chet Chaffee, Ph.D. (SCS)	Project Leader
	Dayton Lee Alverson, Ph.D. (Natural Resources Consultants)	MSC Principles 2 and 3
	Louis Botsford, Ph.D. University of California, Davis, California)	MSC Principle 1 - Stock Assessment
Surveillance Stage	Annual Surveillance 2004 - 2005	Report Date – 16 July 2005

Preface

The information, opinions, and assertions made in this report are the sole responsibility of Chet Chaffee, Scientific Certification Systems, Inc.'s Marine Fisheries Certification Program manager. Advice was sought and provided by Dr. Louis Botsford (UC Davis) and Dr. D. Lee Alverson (NRC Corporation), but they are not responsible for or in control of the final determinations made in this report.

Executive Summary

This Surveillance Report (2005) has been prepared to provide SCS's final assessment of the fishery's continued compliance with the MSC standards prior to the end date (October 2005) of the first MSC certificate issued in 2000. It is SCS's view that the salmon fisheries in Alaska continued to meet the standards of the MSC and to comply with the 'Requirements for Continued Certification'.

Background to 2005 AK Salmon Surveillance

The Alaska salmon fisheries were originally certified in October 2000 by Scientific Certification Systems, Inc. The requirements of the Marine Stewardship Council (MSC) are that each certified fishery must undergo at a minimum an annual surveillance to ensure the basis of certification is still in place and that the fishery is meeting any conditional requirements from the original certification. At the end of the 5-year certification period, the fishery must complete a re-certification before the anniversary date of the original certification to ensure the uninterrupted use of the certificate and the MSC logo. Should the fishery either fail the surveillance audits or re-certification, the use of the certificate and the MSC logo can be revoked by the certifier and the MSC or may simply lapse.

This report represents the last annual surveillance, which occurred simultaneously with the re-certification procedures. The issues for the certifier are whether the fishery has sufficiently met all the required conditions set forth in the original certification report, whether the salmon stocks are still as abundant and robust as 5 years ago during the initial assessment, and whether the management system has continued to improve and strengthen over time. It is the certifier's job to determine the answers to these questions and to decide whether to continue the certificate until a re-certification can be completed.

The continued use of a certificate, or more importantly the loss of an issued certificate, are important and far reaching circumstances that can affect a fishery politically and socially, and most important of all economically. In fact, losing a certificate is probably more problematic than never achieving the certificate in the first place as it affects the entire value chain built up and around the value added use of the MSC logo. That is one of the great strengths of the MSC program – the market incentive that drives fisheries to meet standards for good long-term fisheries management.

A number of things can and do happen in a fishery that can support or detract from continued certification. These can range from small inconsequential issues like missing some analyses or timelines for dissemination of information to stakeholders or the MSC to large important issues such as failure to be able to determine the status of a stock or understanding of significant ecological impacts in a fishery. It is the certifier's job to

determine whether the type and magnitude of a failure (or non-conformance) is sufficient to warrant the revocation of a certificate.

To ensure that no action is taken lightly, surveillance audits must be taken very seriously, not conducted in haste, and provide thorough reviews of the highest possible scientific and technical calibre. The MSC requirement for an annual audit is that the certifier provide a surveillance report no more than 30 days from the time of the audit. In this fishery, the actual audit process has lasted almost 4 months – from the time of asking the initial questions to the receipt of final materials from the fishery. While it would have been possible to perform a perfunctory annual audit in less time, it would not have maintained the value in the audit system and could very likely have led to missing crucial information and issues in the fishery. SCS made every effort to fully understand the issues in the fishery so we could properly determine which activities have been successful and which need further attention. In so doing, we allotted additional time to the fishery client to provided answers to the technical questions we posed, which led to this report being completed beyond the timeline initially estimated.

In addition to the above mentioned process, there was a substantive misunderstanding by SCS about the requirements of the MSC regarding the final surveillance audits. In an MSC TAB (Technical Advisory Board) Directive issued previously, the MSC advised that a final surveillance would be merged with the re-assessment/re-certification effort. It was unclear from this directive that a separate report was required. SCS has conferred with the MSC on this matter, and is now rectifying the situation with this report.

Outstanding MSC Surveillance Requirements

This report covers the outstanding surveillance matters raised at the 2003-2004 annual audit.

Basis of the Surveillance Report

The annual surveillance audit process (as always) is comprised of four general parts:

1. The surveillance team provides questions around areas of inquiry to determine if the fishery is maintaining the level of management observed during the original certification. In addition, the surveillance team requires that the client provide evidence that the fishery management system has taken the necessary actions to meet all conditions placed on the fishery during the initial certification assessment or any previous surveillance audits.
2. The surveillance/assessment team meets with the client fishery to allow the client to present the information gathered in answer to the questions asked by the surveillance team The surveillance team can then ask questions about the information provided to ensure its full understanding of how well the fishery management system is functioning and if the fishery management system is continuing to meet the MSC standards.

3. The surveillance team presents its findings to the client fishery at the end of the site visit. The results outline the assessment team's understanding of the information presented and its conclusion regarding the fishery management system's continued compliance with MSC standards. Where indicated, the surveillance team may provide the client fishery with additional time to supplement the information provided if the surveillance team finds that there are still issues requiring clarification. In the Alaska salmon fisheries surveillance, this was the case, which means the actual audit was not over until well into July when the client completed its submission of information to SCS.
4. Where appropriate, the client fishery submits final information to the surveillance/assessment team for consideration in the surveillance findings and report. The surveillance team then reviews the final information and submits a final report to the client fishery and the MSC for posting on the MSC website. If there are continued compliance concerns, these are presented as non-conformances that require further action and audits as specified in the surveillance report.

Since the annual audit is merged with the re-assessment process, SCS is not reporting on any of the general aspects of how the salmon fisheries comply with the MSC standards. This discussion is taking place in a much more rigorous and comprehensive manner than is accomplished during a surveillance audit as part of the re-assessment process. For this report, SCS is only reporting on work completed to meet the outstanding conditions from the previous year's audit.

Surveillance Meetings

The surveillance audit for 2004-2005 was conducted concurrently with initial meetings to set up and conduct the 5-year re-assessment of the Alaska salmon fisheries as required by the MSC. Information was provided between March and June 2005 by email and post to the SCS team. Meetings were then held in Juneau, Alaska at the Department of Fish and Game Headquarters 13-18 June, 2005. While the meetings focused mostly on the re-assessment process, some aspects of the surveillance audits were also discussed.

Attendance at the meetings included Dr. Chet Chaffee and Dr. Louis Botsford from the original assessment team. SCS also sought advice from Dr. Lee Alverson of NRC, although Dr. Alverson was not able to attend the meetings. SCS also had two other contractors - Dr. Greg Ruggerone (NRC) and Mr. Ray Beamesderfer (S.P. Cramer & Associates) – at the meetings as part of the re-assessment process. Dr. Ruggerone and Mr. Beamesderfer did not contribute to the surveillance process.

For the Alaska Department of Fish and Game, senior staff included Doug Mecum, Doug Eggers, and John Clark. In addition, ADF&G contracted to bring back Andy Macgregor (retired) to take the lead in preparing materials, arranging meetings, and providing documentary evidence to the surveillance and re-assessment team.

Remaining Issues from Past Surveillance Audits

The Requirements for Continued Certification from the original final assessment and certification report are shown below along with a summary of the current situation associated with corrective actions to gain compliance against each requirement.

Requirement for Continued Certification (Corrective Action Request)	**Status**
1.5.1.1 Performance Indicator 1E - Target Reference Points	
Within 3 years of certification the Alaska Department of Fish & Game must:	
1. Determine the number of salmon spawning stocks or spawning stock aggregates in the state that are managed on the basis of (1) escapement goals determined by stock-recruitment analysis, (2) escapement goals determined by average escapements, and (3) no established escapement goals.	Completed
2. Categorize each spawning stock or spawning stock aggregate according to relevant characteristics such as: whether it is a mixed stock fishery, the number of individual stocks exploited, methods used to estimate escapement, whether escapement goals were based on data before or after the mid-1970s, and whether the monitored stocks exploited in the mixed stock fisheries are representative of unmonitored stocks exploited.	Completed
3. Present the distributions in terms of the number of spawning populations, the number of fish, and the economic value of the fishery.	Completed
1.5.1.2 Performance Indicator 1F - Limit Reference Points	
1. Within 3 years after certification ADF&G must provide an explanation to the certification body about how Alaska salmon fisheries will continue to be sustainably managed even if there is an event that changes ocean survivals back to rates equivalent to those seen in the 1950s, 1960s, and 1970s. The explanation provided should at a minimum include:	Completed
a) What types of analyses are being	

conducted to understand how potentially lower ocean survival rates effect population abundance and commercial catches (use stock recruitment data where available).	
b) An assessment of the projected distribution of catches over spawning populations, the distribution of fisheries that would be shut down, and the socio-economic impact.	
c) A description of how ADF&G would respond to these conditions and to well-reasoned arguments that most escapement goals are arbitrarily set at an average level, therefore are not based on population dynamics and should be lowered.	
d) A description of the department's response to poor salmon survival conditions experienced historically including the 3 years in the early 1970s.	
2. Within 1 year after certification ADF&G must provide evidence to the certification body that the joint stock status report for northern coho required by the Pacific Salmon Treaty is being undertaken in a timely and cooperative manner. This can take the form of presenting the certification body with ADF&G's portion of the report, or presenting copies of the correspondence from ADF&G to the appropriate PST representatives regarding progress being made.	Completed
3. Within 2 years after certification ADF&G must present to the certification body an explanation of why ADF&G believes the stocks being co-managed under the PST are considered sustainable based on the current management paradigm.	Completed
1.5.1.3 Performance Indicator 2A - Bycatch and discards	
1. Within 3 years after certification the state must implement a sampling program to identify major non-salmon fish species, birds and marine mammals taken in the salmon net fisheries of the State. The program should be designed to provide a reasonable understanding of fish, shellfish, birds and marine mammals taken incidentally in the fisheries. This	Completed

requirement can be met in a number of ways. For example, one solution is that the sampling program may involve collection of bycatch information in the course of the department's test fisheries, and reference to similar data collected by the National Marine Fisheries Service. The certification body is not requiring any specific method, merely evidence that ADF&G is utilizing some process to collect the necessary information to adequately understand bycatch in the net fisheries.	
2. Before 5 years pass after certification, ADF&G must provide evidence and a summary regarding its findings on bycatch of non-salmon species taken in the Alaskan salmon fisheries to an accredited certification body.	Completed
1.5.1.4 Performance Indicator 3C - Management system incentives and subsidies for sustainable fishing	
1. Within 2 years of certification ADF&G must present information to the certification body reporting on progress made by the Commercial Fisheries Entry Commission on reducing the number of permits to the numbers determined to be consistent with the limited entry law on an annual basis.	Completed
2. The Department must identify long-range research needed to assess the magnitude of the interaction of hatchery programs on the wild stock gene pool and the effect on the reproductive fitness of those stocks. The department must document the programs, policies and regulations and statutes as well as specific actions taken to assure the consistency of the hatchery program with the Genetics Policy.	Completed

Escapement Goals

From the past year's surveillance, SCS allowed additional time for ADF&G to provide more information on the setting and use of escapement goals (Condition . SCS is now satisfied that it has all the data/information requested and believes that ADF&G have now met the remaining conditional requirements.

During the meetings held on re-assessment and surveillance, ADF&G provided a thorough explanation of the current status of the committee working on setting SETs (Sustainable Escapement Thresholds). The Sustainable Escapement Goal Policy set in Alaska just after the initial MSC certification requires that the department review and discuss the potential for establishing SETs. SETs are meant as a management tool to identify the lowest limit to which ADF&G and the Board of Fish would allow a salmon run to reach before ceasing all activities that would cause additional mortality to the salmon in the endangered run. In practice, the use of the currently established escapement goals along with the state's policy on identifying and managing stocks of concern is designed to halt fishing before a lower limit, such as an SET, is actually reached. This practicality coupled with the fact that the committee has not been able to define a scientifically justified method for setting SETs, has meant that SETs have not been necessary. SCS has noted that ADF&G manages with current escapement goals and policies about stock of concern in such a way as to ostensibly have the operational equivalents of LRPs. While this satisfies the requirement from the original assessment, SCS will be looking to have further discussions with ADF&G during the re-assessment process about the long-term stability of escapement goals and the practical matters associated with identifying and acting on stocks of concern.

ADF&G also provided updates to its table on managed stocks that fulfils all of the conditional requirements. Separate analyses were provided on how ADF&G handles the analysis if socio-economic impacts for salmon fisheries, which also meets the requirements for continued certification.

ADF&G provided an explanation of how salmon runs changed in the early 1970s and how current policies are set to allow departmental staff to pick up signals of future changes and act appropriately and in a timely manner should ocean survival change.

Area M Fishery

SCS noted in the last surveillance that it would watch the Area M fishery closely to see if there is any suggestion that the recent management decisions to increase the harvest rate in the area is having an adverse affect. It is clear after one year, the runs of chum salmon that are intercepted in Area M are actually stronger than in past years, indicating that the recent management decisions have not in the short-term had a disastrous affect. SCS expect ADF&G and the Board of Fisheries to take immediate corrective action. SCS will continue to watch this closely.

Lesser Stocks

As part of the re-assessment process, ADF&G has provided an even more comprehensive listing of the lesser stocks of salmon that are passively managed. The listing is providing the SCS assessment team with important information for the re-assessment process.

Bycatch in Alaska Salmon Fisheries

ADF&G has provided SCS with the analyses of the bycatch data that have been collected over the past several years (see Appendix 1)

This completes this requirement.

Subsidies in Alaska Salmon Fisheries

ADF&G provided SCS with summaries of permits in various salmon fisheries and regulations governing the limited entry program. ADF&G also provided information on how many permits actual fish each year to show thew reductions in the fishery. At present, there do not appear to be any significant subsidies.

This condition is now considered completed.

Summary

All conditions in the fishery have now been met to the satisfaction of the certification body (SCS).

Appendix 1 – ADF&G Bycatch Data from Commercial Salmon Fisheries

Information on Bycatch in Alaska Salmon Fisheries
Summary provided by ADF&G, Division of Commercial Fisheries
May 13, 2005
File: bycatch summary for msc.doc

When Alaska salmon fisheries received MSC certification in 2000, requirements for continued certification included:

1) ADF&G to implement a sampling program within 3 years to identify major non-salmon fish species, birds and marine mammals taken in the state's salmon net fisheries
2) ADF&G to, within 5 years, provide evidence and a summary of its findings on the bycatch of non-salmon species taken in Alaskan salmon fisheries.

In response to the first requirement ADF&G instituted a program in 2002 to document bycatch in the department's salmon test fisheries, results of which are included with this report. This summary report is being submitted to meet the second requirement.

A summary of bycatch information gathered through ADF&G's testfish program is included in Section I of this summary.

Marine mammal and bird bycatch information in several Alaska commercial salmon fisheries has been and continues to be collected by the National Marine Fisheries Service, through its Alaska Marine Mammal Observer Program. A brief summary of the program is provided in Section II of this summary. Reports NMFS has provided to ADF&G on the marine mammal observer program are included with this submission.

Marine mammal and bird encounter data is also being collected by ADF&G in connection with studies to estimate encounter rates and incidental mortality of chinook salmon in Southeast Alaska commercial salmon fisheries. Although the primary focus of these studies is on chinook salmon, bycatch and encounter information of other species is being documented. Logbook data was collected from commercial gillnetters, seiners and trollers in 2004. Department observers were deployed on commercial troll vessels in 2004 and will be deployed on vessels in the commercial drift gillnet fishery in District 111 and purse seine fishery in Districts 101-104 during the 2005 fishing season. Information on this program is contained in Section III, including preliminary results from the 2004 troll fishery observer program and a letter ADF&G distributed at an industry forum (SE Drift Gillnet Task Force) describing the gillnet fishery sampling and observer programs.

Section I: ADF&G Test Fisheries

ADF&G conducts salmon test fisheries throughout the state, primarily to provide in-season information on the strength of salmon returns. Agency staff are not present aboard vessels for all test fisheries due to funding and staffing constraints. Since 2002 ADF&G has systematically recorded bycatch in the salmon test fisheries where department staff either conduct or are observers of the fisheries. A list of test fisheries monitored for by-catch information is provided in Table 1.

Table 1. Salmon test fisheries monitored for bycatch, 2002-2004.

			Years Sampled		
Region	Location	Gear Type	2002	2003	2004
Southeast	Hawk Inlet -N.Chatham Strait	Purse Seine	X	X	X
Central	Upper Cook Inlet	Drift Gillnet			X
	Bristol Bay: Kvichak River	Drift Gillnet			X
	Bristol Bay: Egegik River	Drift Gillnet			X
	Bristol Bay: Ugashik River	Drift Gillnet			X
AYK	Kuskokwim River				
	Bethel	Drift Gillnet		X	X
	Aniak River	Beach Seine		X	X
	Kalskag & Aniak	Drift Gillnet		X	X
	Kalskag & Aniak	Fish wheel		X	X
	Holitna River	Drift Gillnet		X	X
	Birch Tree	Fish wheel & Gillnet		X	X
	Kalskag & Aniak	Fish wheel & Gillnet		X	X
	Yukon River				
	Lower Yukon	Set gillnet		X	X
	Lower Yukon	Drift gillnet		X	X
	Pilot Station	Drift gillnet		X	X
	Mountain Village	Drift gillnet		X	X
	Kaltag	Drift gillnet		X	X
	Russian Mission	Fish wheel		X	X
	Tanana tagging	Fish wheel		X	X
	Kantishna tagging	Fish wheel		X	X
	Nenana recovery	Fish wheel		X	X
	Kantishna recovery	Fish wheel		X	X
	Tolklat recovery	Fish wheel		X	X
	Norton Sound				
	Unalakleet River	Set Gillnet		X	X
	Kotzebue				
	Kobuk River	Drift Gillnet		X	X

Westward				
Bear River	Drift gillnet	X	X	X
Alitak Bay	Set gillnet	X	X	X
Shumagin Islands Immature Salmon	Purse Seine	X	X	X

Data collected by Department observers is included in EXCEL spreadsheet files along with this submission. Department observers have documented no marine mammal or bird mortalities in the sampled test fisheries. Test fisheries sampled for bycatch are described below. File names for data spreadsheets provided in electronic format are listed in italics and parentheses.

SOUTHEAST ALASKA REGION

Hawk Inlet Purse Seine: *(Hawk Inlet Seine testfish bycatch-2002 to 2004.xls)* This test fishery is conducted to collect in-season run strength information for use in managing the commercial purse seine fishery in northern Chatham Strait. The fishery has been operated in a standardized way (number, location and duration of sets) for many years, with department observers aboard contracted commercial seiners, and salmon catch records are available since the 1980s. Bycatch data has been recorded by department staff since 2002. The test fishery occurs one day per week for up to 4 weeks between late June and mid to late July. During the 3 years of fishery sampling there has been minimal bycatch of non-salmon species (0.06%-0.3% of total catch), consisting primarily dolly varden char. No marine mammals have been encountered and no birds captured. Two additional purse seine test fisheries are conducted in lower portions of Chatham Strait, at Kingsmill Point and Point Gardner, but department staff do not observe those fisheries. The region does not have ongoing drift gillnet or set gillnet test fisheries.

CENTRAL REGION *(BB&CI testfish bycatch-2004.xls)*

Upper Cook Inlet: Under the supervision of the Area Research Project Leader, a chartered vessel fishes 200 fathom drift gillnets (45 meshes deep and 5 1/8 to 5 3/8 inch mesh) daily during the fishing season along a transect from Anchor Point to Red River. Information on catch by salmon species is used with historical patterns of salmon migration to estimate the run strength for in-season management of the fisheries. There are 6 stations; in general terms, these stations are along a transect that runs from Anchor Pt. westward to the Red River Delta on the west side of Cook Inlet. This is very close to the southern boundary of the Upper Cook Inlet commercial fishery management area. There was no bycatch of non-salmon species or interactions with birds or mammals in the test fishery in 2004.

Kvichak River: Test fishing is conducted in the lower Kvichak River above the Naknek-Kvichak commercial fishing district to estimate the preliminary number of sockeye salmon that have escaped the fishery and entered the river to spawn. Since 80% of the

run occurs within a two-week period and there is a delay in estimating escapement at upriver towers, early estimates of escapement from the test fishery are used to make management decisions for meeting escapement goals. The test fishery uses 25 fathom length drift gillnets. The catch in 2004 was almost exclusively sockeye salmon, with no bycatch of other species or interactions with birds or mammals noted.

Egegik River: Test fishing is conducted in the lower Egegik River above the Egegik commercial fishing district to estimate the preliminary number of sockeye salmon that have escaped the fishery and entered the river to spawn. Since 80% of the run occurs within a two-week period and there is a delay in estimating escapement at upriver towers, early estimates of escapement from the test fishery are used to make management decisions for meeting escapement goals. The test fishery uses 25 fathom length drift gillnets. The catch in 2004 was almost exclusively sockeye salmon, with minimal bycatch of other species or interactions with birds or mammals noted.

Ugashik River: Test fishing is conducted in the lower Ugashik River above the Ugashik commercial fishing district to estimate the preliminary number of sockeye salmon that have escaped the fishery and entered the river to spawn. Since 80% of the run occurs within a two-week period and there is a delay in estimating escapement at upriver towers, early estimates of escapement from the test fishery are used to make management decisions for meeting escapement goals. The test fishery uses 25 fathom length drift gillnets. The catch in 2004 was almost exclusively sockeye salmon, with minimal bycatch of other species or interactions with birds or mammals noted.

WESTWARD REGION

North Alaska Peninsula (Bear River): *(Bear River Gillnet testfish bycatch-2002 to 2004.xls)* The North Alaska Peninsula drift gillnet test fishery is conducted to collect information on sockeye salmon abundance in the vicinity of Bear River located near Port Moller. The test fishery was initiated in 2000 and has been operated with department observers on-board two vessels. Two drift gillnet vessels with refrigerated sea-water capabilities are chartered by the department and sets are made at specific areas using standardized methods. A 200 fathom long by 70 mesh deep gillnet is used by each of the two boats. Sockeye salmon harvested are sampled for age data and then sold to the local processor. Bycatch data has been recorded by department staff since 2002. The test fishery occurs on days when the department needs to assess the marine abundance of salmon, specifically bound for the Bear River. The results of the test fishery dictate commercial fishery time and area openings for a fleet of 160 vessels. The test fishery occurs from late June to mid August. Bycatch often consists of starry flounder, yellow fin sole, and sculpin species and annually has made up less than 7% of the total harvest. Marine mammals, specifically harbor seals, are often encountered in this area as they remove fish from the nets. No marine mammals or birds have ever been captured during the test fishery.

Alitak Bay: *(Alitak Gillnet testfish bycatch-2002 to 2004.xls)*

Since 1986, the Alaska Department of Fish and Game has operated a set gillnet test fishery at the mouth of Olga Narrows to assist in the management of the Alitak Bay

District commercial sockeye salmon fishery in the Kodiak Management Area. The general purpose of the test fishery is to approximate the number of sockeye salmon transiting Olga Narrows into Olga Bay in advance of escapement counts at salmon weirs located in Olga Bay. From late May through the month of July, a 50-fathom set gillnet with 20 fathom lead is fished for three hours daily at high tide, during the daylight hours. The catch is enumerated by species, sampled for age (scales) and length, and sold to the processing plant located in Lazy Bay. Bycatch data has been collected since 2002. The test fishery targets sockeye salmon but pink, chum, and chinook are captured as well. Bycatch of non-salmonids is minimal (less than 1%) and consists mainly of cod, pollock, sculpin, and flounder. Marine mammals (mostly harbor seals) are often encountered but not captured. Birds have never been captured in the Alitak test fishery.

Shumagin Island Immature Salmon: *(Shumagin Islands Seine testfish bycatch 2002 to 2004.xls)* Since 1990, an ADF&G test fishing program has been conducted in the Shumagin Islands to determine the presence and abundance of immature salmon in South Peninsula waters prior to commercial purse seine fishing periods in July. Bycatch data has been recorded by department staff since 2002. In the Shumagin Islands Section, most purse seine fishing effort occurs in the near shore waters of Popof Island from Popof Head to Red Bluff. The department established three test fishing sites at popular set locations in this area. During the test fishery, chartered purse seine vessels with department observers aboard make 20-minute sets at each location. For the purposes of this test fishery, the Board of Fisheries has defined immature salmon as Chinook, sockeye, coho, and chum salmon that are gilled in the seine web. Bycatch of non-salmonids has totaled less than 0.08% of the catch in each year, and consists mostly of pollock and flatfish. No marine mammals have been encountered and no birds have been captured.

AYK REGION *(AYK test and project fisheries bycatch-2003.xls and 2004 AYK test and project fisheries.xls)*
Test fisheries in the AYK region are conducted at the mouths of major rivers or inriver. Gear includes drift and set gillnets and fish wheels.

Kuskokwim River: The Bethel Test Fishery project is located at river mile 80 of the Kuskokwim River, which is about the midpoint of District 1. The project began in 1984 and the methodology has remained largely unchanged since then. The project is operated from early June through late August, and test fish crews conduct three or four systematic drifts of 20 minutes duration beginning one hour after high tide at stations distributed across the river channel. Two 50 fathom length gillnets are used. The test fishery catch is tallied by species and then distributed to charities or sold. The fishery is used to assess relative abundance and run timing. Bycatch of non-salmonids in the fishery in 2003 and 2004 was well below 1%. No marine mammals or birds were taken in the test fisheries.

The remaining Kuskokwim test fisheries are associated with sonar, mark-recapture and radio telemetry projects. The vast majority of fish captured in these fisheries are released alive. There has been no bycatch of marine mammals or birds in the fisheries in 2003 and 2004.

Lower Yukon River: The lower Yukon River ADF&G test fishing projects located at South, Middle and North Mouths utilized set and drift gillnets from late May through late August to capture chinook, chum, and coho salmon. Catch rates and species composition provides run timing, age composition, and an index of relative abundance for comparisons between years. The Fall drift gillnet test fishery (July 16 through August 31) in the South mouth and Middle Mouth of the Yukon River is a cooperative project between ADF&G and Office of Subsistence Management (OSM). The Summer drift gillnet test fishery (May 28 through July 15) in the South mouth and Middle Mouth of the Yukon River is a cooperative project between ADF&G and Yukon River Development Association, (CDQ). Bycatch in these gillnet test fisheries in 2003 and 2004 consisted almost entirely of non-salmonid fish species (primarily sheefish, whitefish and cisco). No marine mammals or birds have been taken in the test fisheries, however bycatch has included 4 beavers.

Mountain Village Test Fishery: A cooperative fall chum and coho stock assessment project between ADF&G and several other organizations. The project was initiated in 1995 on the Yukon River approximately 3 miles upstream from Mountain Village and has operated annually from about July 19 through September 10. Drift gillnets are fished and catch rates and sampling provide run timing, age composition, and an index of relative abundance for interannual comparisons. The only bycatch reported for in the 2003 and 2004 fisheries were ciscos.

Kaltag Test Fishery: A cooperative fall chum salmon stock assessment between ADF&G and the City of Kaltag funded by the Yukon River Restoration and enhancement Fund Yukon River Panel project. This project was initiated in 1999 on the middle Yukon near Kaltag and has operated annually since from mid-July through mid-September. Drift gillnets are fished and catch rates and sampling provide run timing, age composition, and an index of relative abundance for interannual comparisons. There have been very low catches of non-salmonid fishes and no bycatch of birds or mammals.

The remaining Yukon River test fisheries are operated inriver at various locations and are associated with sonar (Pilot Station), radio telemetry and mark-recapture projects. The vast majority of fish captured in these fisheries are released alive. There has been no bycatch of marine mammals or birds in the fisheries in 2003 and 2004.

Norton Sound: The Unakaleet River Test Net project is a set gillnet project located at a site two miles upstream of the mouth of the Unakaleet River. The set net is checked twice per day. The project is used to evaluate abundance, migratory timing and age composition of chum, chinook and coho salmon returns to the river. It provides important information on whether salmon are migrating upriver or milling at the mouth of the river. Bycatch was minimal in 2003 and 2004 (<1% of total catch), composed of small numbers of dolly varden char, a few starry flounder and 1 beaver. No marine mammals or birds were captured in the fishery in 2003 or 2004.

Kotzebue Sound: The Kobuk River Test Net project is a drift gillnet project located below the village of Kiana. One drift is conducted on each side of the river three times per day (0800 h, 1500 h, and 2200 h). All test fishing drifts are approximately 20 minutes duration, using 50-fathom gillnets. The project is used to evaluate abundance, migratory timing and age composition of chum salmon in the Kobuk River. Sheefish are the primary bycatch, and small numbers of dolly varden have been taken in 2003 and 2004. No marine mammals or birds have been captured in the fishery.

Section II: Alaska Marine Mammal Observer Program

The National Marine Fisheries Service (NMFS) is required under the Marine Mammal Protection Act to monitor and report on the effects of commercial fisheries on marine mammal stocks. NMFS classifies each U.S. commercial fishery (state or federal) into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in the fishery. One of the ways NMFS uses to assess the correctness of the fishery classification is through the Marine Mammal Observer Program. The primary goal of the program is to provide reliable observation data on the number and condition of incidental injury and mortality to marine mammals and sea birds occurring in commercial fisheries. The Alaska Marine Mammal Observer Program (AMMOP) has conducted several observer programs on Alaskan fisheries placed in Category II status by NMFS, and plans to conduct additional studies in the future. Category II fisheries have been determined by NMFS to have "occasional" incidental serious injuries and mortalities of marine mammals. Category II commercial salmon fisheries in Alaska include the Bristol Bay set and drift gillnet, Kodiak set gillnet, Aleutian Island/Alaska Peninsula drift and set gillnet, Prince William Sound drift gillnet, Cook Inlet drift gillnet, Yakutat set gillnet and Southeast drift gillnet and purse seine fisheries.

AMMOP observer programs on Alaskan salmon fisheries have been conducted of drift and set gillnet fisheries in Prince William Sound in 1990 and 1991, the drift gillnet fishery in South Unimak (Area M) in 1990, drift and set gillnet fisheries in Cook Inlet in 1999 and 2000, and the Kodiak set gillnet fishery in 2002. A second year of observations of the Kodiak set gillnet fishery, originally planned for 2003 but delayed due to funding shortfalls, is being conducted in 2005. An outreach and logistical study of the Southeast Alaska drift gillnet fishery was conducted in 2002; that fishery is next in line for the AAMOP, but likely not until 2007 or later (Bridget Mansfield, NMFS personal communication). Copies of reports from the above studies have been provided by the NMFS, and are being forwarded along with this summary, including observer programs for the Kodiak set gillnet fishery in 2002, the Prince William Sound gillnet fisheries in 1990 and 1991, and the South Unimak gillnet fishery in 1990.

While encounters of marine mammals with commercial fishing gear were fairly common in some of the study areas, few mortalities were documented in the fisheries observed thus far. It is worth noting that, as a result of the Cook Inlet observer program, the Cook Inlet set gillnet fishery was reclassified to a Category III fishery, one that has "a remote likelihood of, or no known incidental mortality and serious injury to marine mammals", after observers documented no mortality to marine mammals from interactions in 1999 and 2000 (Bridget Mansfield, NMFS-Alaska Region Protected Resources, personal communication).

Additional information on the AMMOP can be obtained on the web at http://www.fakr.noaa.gov/protectedresources/observers/mmop.htm or by calling Bridget Mansfield at (907) 586-7642.

Section III: Southeast Alaska Chinook Salmon Encounter/Genetic Study and Observer Program

LETTER DISTRIBUTED AT THE SOUTHEAST GILLNET TASK FORCE MEETING IN 2005

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES

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Gillnet Chinook Encounter/GSI Project Summary 2004 Season

Purpose:

To comply with provisions of the 1999 Pacific Salmon Treaty (PST) Agreement, to improve Chinook stock assessment and modeling, and to help facilitate Marine Stewardship Council recertification of Alaska's salmon fisheries as sustainably managed, the Alaska Department of Fish and Game (ADF&G) is conducting two related Chinook research studies during the 2004 and 2005 fishing seasons.

Specifically, these studies consist of sampling programs to:

1) Estimate the stock composition of the Chinook salmon harvest by genetic analysis of tissue samples.
2) Estimate the incidental mortality of Chinook salmon intercepted in the fishery from the numbers of Chinook salmon caught and released.
3) Document the frequency and nature of incidental interactions with marine mammals and sea birds through onboard fishery observers.

Data Collected During the 2004 Summer Drift Gillnet Fishery

GSI Sampling

During 2004, Alaska Department of Fish and Game staff in ports throughout Southeast Alaska collected 1,276 tissue samples for genetic stock identification (GSI) analysis from Chinook salmon caught in the traditional summer drift gillnet fishery. These samples

represent approximately 8% of the traditional fishery harvest of 15,194 Chinook salmon. The region-wide goal for the gillnet fishery was to sample 1,200 Chinook salmon. Sample goals were met or exceeded for the District 101, 111, 115, and 108 drift gillnet fisheries, and nearly met for District 106 (177 samples with a goal of 200).

The ADF&G Gene Conservation Laboratory in Anchorage will analyze these samples sometime in 2005, once the coast wide baseline for Chinook salmon is completed. All samples were collected with matching scales (4 scales per fish) and length data, so that age data may be correlated with stock composition information. The ADF&G Scale Laboratory in Douglas is currently aging these scales and final age composition data for each fishery will be available in February. Chinook salmon that were sampled for GSI, age, and length were also sampled for coded-wire tags. The analysis of these tissue samples will give us first-time estimates of the stock composition of the entire catch of Chinook salmon in the drift gillnet fishery, both region wide and by district, and will provide benchmark estimates to compare with the PSC Chinook Model and for other uses such as harvest sharing for the Taku and Stikine Rivers. In the past we have had partial estimates of the stock composition from coded-wire tags; one advantage of the genetic analysis is allocation of the entire catch to stock group. Additionally, genetic analysis will likely augment or replace CWT analysis in the PSC work in the future.

Deep Inlet Sampling

In addition to sampling the traditional drift gillnet fishery, 90 tissue samples matched with scales and lengths were collected from Chinook caught by drift gillnet gear in the common property terminal area fishery located in Deep Inlet. All of these fish were also sampled for coded-wire tags. Coded-wire tag recoveries from Deep Inlet gillnet landings in 2004 indicate that 95% of the 2,938 Chinook salmon caught in that fishery by drift gillnet gear originate from Medevejie. A total of 277 Chinook salmon were sampled for coded-wire tags (187 in addition to the GSI/CWT sample of 90 Chinook) and there were 23 tags recovered, of which 22 were from Medevejie and 1 was from Quinsam River Hatchery.

Gillnet Logbooks

So far 475 logbook days of data have been entered from logbooks filled out by volunteer drift gillnet operators during the 2004 season. Logbooks are still arriving and data being entered, and we are in the process of contacting all 2004 participants to ask that logbooks be returned as soon as possible. It is apparent that we will exceed the project goal of 480 logbook days of information from the 2004 Southeast Alaska drift gillnet fishery. A total of 75 vessels participated in the program in 2004, filling out a total of 165 logbooks. So far 133 logbooks have been received in the Douglas office and 32 logbooks remain to be turned in. Once all the gillnet logbook data yet to be turned in is received and entered the data will be analyzed and Chinook catch and release estimates will be calculated. A preliminary look at the data shows that catch and release encounter rates in the drift

gillnet fishery are relatively low, as had been anticipated. This will enable us to provide direct estimates of the number of encounters and incidental mortality to the PSC.

Observers

Observers will be deployed in the District 111 drift gillnet fishery in 2005. They will be recording data to corroborate logbook information collected by gillnetters, to pass scrutiny by outside organizations. They will also be collecting genetic tissue samples and documenting any interactions of marine mammals and sea birds with the vessel and it's gear. Two observers will be hired to collect data aboard drift gillnet vessels and ADF&G will be looking for as many volunteer vessels as possible, so we may distribute observer effort across the fleet throughout the fishery. Volunteer skippers will be compensated $150 per day that the observer spends time aboard the vessel. They will also be provided with food and safety gear for the observer.

Table 1. Data collected by ADF&G observers aboard commercial troll vessels in Southeast Alaska, summer 2004.
(preliminary summary)

Chinook Retention Periods		
	Caught & Kept	Caught and Released
Chinook	629	0
Sublegal Chinook	0	34
Coho	1252	0
Chum	51	0
Pink	446	0
Sockeye	1	0
Ling Cod	5	36
Yelloweye	0	1
Halibut	0	21
Quillback	0	7
Black Rockfish	10	66
Misc Rockfish	0	50
	2394	215
25 days		
357 hours		
		0.089808

Chinook Non-Retention Periods		
	Caught & Kept	Caught and Released
Chinook	0	245
Sublegal Chinook	0	12
Coho	2727	0
Chum	11	0
Pink	162	0
Sockeye	3	0
Ling Cod	0	1
Yelloweye	0	0
Halibut	0	0
Quillback	1	2
Black Rockfish	0	2
Misc Rockfish	0	0
	2904	262
22 days		
231 hours		
		0.09022

Chinook Retention Period -Total Catch (Kept & Released)	
	Catch
Salmon	2379
Salmon Catch and Release	34
Groundfish	15
Groundfish Catch and Release	181

Chinook Non-Retention Period Total Catch (Kept & Released)	
	Catch
Salmon	2903
Salmon Catch and Release	257
Groundfish	1
Groundfish Catch and Release	5

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Chinook Retention Period Marine Mammal and Seabird Interactions:

Total Fishing Days: 25 Total Hours Fished: 357

Observers documented no interactions between seabirds and the troll vessels or their gear during chinook retention periods of the 2004 fishery.

There were six incidents of sea lions removing fish from the troll gear during this period.

Chinook Non-Retention Period Marine Mammal and Seabird Interactions:

Total Fishing Days: 22 Total Hours Fished: 231

Observers documented interactions between seabirds and the troll vessels or their gear during chinook non-retention periods of the 2004 fishery.

There were two incidents of sea lions removing fish from the troll gear during Chinook Non-retention periods.