

HR

6

<TARGET><BILL>HR 6</BILL><SUBJECT>HR
6</SUBJECT><COMM>HFSH28</COMM></TARGET>

Alaska State Legislature

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House Fisheries Committee

Representative Paul Seaton, Chair

HR 6 CHINOOK BYCATCH LIMITS

Sponsor Statement

Alaska's recreational, subsistence, and commercial fisheries have faced dramatic shortfalls of Chinook salmon in recent years leading to fisheries closures and hardship for Alaskan residents. In the summer of 2012 Governor Parnell issued a disaster declaration for the Yukon-Kuskokwim and Cook Inlet regions due to low Chinook returns.

In the fall of 2012 the Department of Fish and Game convened a Chinook Symposium in Anchorage to identify king salmon knowledge gaps in order to maintain sustainable stocks. This is one of many efforts to learn more about this important fish and why there has been low abundance in certain areas. While long-term research is underway, it is essential to begin dealing with the problems facing Chinook salmon that we do know about.

One of these problems is salmon by-catch in Bering Sea and Gulf of Alaska trawl fisheries. According to a 2013 report by the North Pacific Fisheries Management Council, the 5-year average for Chinook salmon by-catch in these fisheries was 40,621 fish. If not intercepted, many of these king salmon would have returned to Alaskan waters and provided harvest opportunities as well as much needed escapement.

This resolution asks the North Pacific Fishery Management Council to take action to reduce the level of Chinook salmon by-catch in Bering Sea and Gulf of Alaska trawl fisheries to at least half of the current limits. In this time of low king salmon abundance, it is critical that unintended mortality be reduced. This resolution is an attempt to address a known cause of substantial mortality and help restore strong king salmon runs to our rivers.

— New to Adpt —

28-LS0575\O

Bullard

3/20/13

CS FOR HOUSE RESOLUTION NO. 6()

as amended

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-EIGHTH LEGISLATURE - FIRST SESSION

BY

Offered:

Referred:

Sponsor(s): HOUSE SPECIAL COMMITTEE ON FISHERIES

A RESOLUTION

1 **Requesting that the North Pacific Fishery Management Council take action to reduce**
 2 **the quantity of Chinook salmon bycatch in the Gulf of Alaska and Bering Sea trawl**
 3 **fisheries by setting new limits in the Gulf of Alaska trawl fisheries and lowering the**
 4 **existing limits in the Gulf of Alaska and Bering Sea pollock fisheries to at least half of**
 5 **the current limits; and requesting that the North Pacific Fishery Management Council**
 6 **require that participants in those trawl fisheries take part in the SeaShare program and**
 7 **that edible bycatch from the Gulf of Alaska and Bering Sea fisheries be provided to**
 8 **Alaska residents.**

9 **BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES:**

10 **WHEREAS** the Chinook salmon, the official state fish, is of critical importance to the
 11 state, providing significant income to the state and its residents through commercial and
 12 charter fisheries, and providing a critical source of food taken in recreational and subsistence
 13 fisheries; and

14 **WHEREAS** the Chinook salmon is a cultural icon for both Native and non-Native

1 Alaskans; and

2 **WHEREAS**, in 2012, Chinook salmon runs were dramatically low, and disaster
3 declarations were made for Upper Cook Inlet and the Yukon and Kuskokwim Rivers; and

4 **WHEREAS**, in 2012, economic losses to the state for commercial and recreational
5 fisheries were over \$34,000,000, not including significant effects on subsistence users and on
6 the cultural and spiritual values of Alaskans; and

7 **WHEREAS**, in 2012, setnet fisheries in Upper Cook Inlet were almost entirely shut
8 down for fear of intercepting hundreds of Chinook salmon; and

9 **WHEREAS**, in 2012, recreational fisheries for Chinook salmon on the Kenai River
10 were completely shut down; and

11 **WHEREAS**, in 2012, subsistence fisheries in the Yukon and Kuskokwim Rivers were
12 under severe restrictions, and, despite those restrictions, many escapement goals were not
13 met; and

14 **WHEREAS** Chinook salmon stocks from Alaska are caught and discarded in the
15 Bering Sea and Gulf of Alaska pollock fisheries and other trawl fisheries in the Gulf of
16 Alaska; and

17 **WHEREAS** Chinook salmon bycatch is a direct and controllable source of mortality
18 for extremely valuable and declining salmon runs throughout the state; and

19 **WHEREAS** nets containing salmon-excluding devices are available, and new
20 concepts and designs to reduce Chinook salmon bycatch are becoming available; and

21 **WHEREAS** the Chinook salmon bycatch cap in the Bering Sea pollock fishery is set
22 at 60,000, which is more than the entire subsistence fishery on the Yukon River; and

23 **WHEREAS** the Chinook salmon bycatch cap in the Gulf of Alaska pollock fishery is
24 set at 25,000, which is more than the 10-year average bycatch in the fishery; and

25 **WHEREAS** the Gulf of Alaska bycatch allowance represented 20 percent of the 2011
26 Cook Inlet, Prince William Sound, Kodiak, Chignik, and Alaska Peninsula sport, subsistence,
27 and commercial Chinook salmon harvest and will likely represent a greater percentage of the
28 2012 harvest; and

29 **WHEREAS** the other Gulf of Alaska trawl fisheries, other than the pollock fishery,
30 currently operate without any bycatch limits; and

31 **WHEREAS** the North Pacific Fishery Management Council is considering a cap on

1 Gulf of Alaska fisheries, other than the pollock fishery, and is initiating a catch share program
2 for the Central Gulf of Alaska trawl fisheries, which could lead to the adoption of regulations
3 that would further reduce bycatch;

4 **BE IT RESOLVED** that the House of Representatives requests that the North Pacific
5 Fishery Management Council take action to reduce Chinook salmon bycatch in the Gulf of
6 Alaska and Bering Sea trawl fisheries by setting new limits in the Gulf of Alaska trawl
7 fisheries and lowering existing limits in the Bering Sea and Gulf of Alaska pollock fisheries to
8 at least half of the current limits and to further reduce bycatch in any Gulf of Alaska catch
9 share program; and be it

10 **FURTHER RESOLVED** that the House of Representatives requests that the North
11 Pacific Fishery Management Council require 100 percent observer coverage in all Gulf of
12 Alaska trawl fisheries to provide accurate estimates of bycatch; and be it

13 **FURTHER RESOLVED** that the House of Representatives requests that the North
14 Pacific Fishery Management Council require that participants in the Gulf of Alaska and
15 Bering Sea trawl fisheries take part in the SeaShare program and require that edible bycatch
16 from these fisheries be provided to Alaska residents.

17 **COPIES** of this resolution shall be sent to the Honorable Sean Parnell, Governor of
18 Alaska; and all members of the North Pacific Fishery Management Council.

LEGAL SERVICES

DIVISION OF LEGAL AND RESEARCH SERVICES
LEGISLATIVE AFFAIRS AGENCY
STATE OF ALASKA

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FAX (907) 465-2029
Mail Stop 3101

State Capitol
Juneau, Alaska 99801-1182
Deliveries to: 129 6th St., Rm. 329

MEMORANDUM

March 20, 2013

SUBJECT: SeaShare Program CSHR 6() (Work Order No. 28-LS0575\O)

TO: Representative Bob Herron
Attn: Kate Wolgemuth

FROM: Alpheus Bullard *TAB*
Legislative Counsel

You requested that a conceptual amendment relating to the SeaShare program¹ be added to HR 6. I made a corresponding change to the title of the resolution.

The conceptual amendment adding a new "Whereas" clause to SeaShare also provided that edible bycatch should be provided to Alaska residents. In drafting the clause I provided that the edible bycatch was bycatch from the Gulf of Alaska and Bering Sea trawl fisheries. Is this consistent with the committee's intent? Note also that it is not clear that the SeaShare program provides any bycatch to Alaska residents.

Finally, the committee may wish to add one or more "Whereas" clauses relating to the SeaShare program to support the new "Further Resolved" paragraph.

If you have questions, or changes that you would like made to this draft, please do not hesitate to contact me.

TLAB:ljw
13-192.ljw

Enclosure

¹ Information about the SeaShare organization can be found at <http://www.seashare.org> and <http://www.seattlefoundation.org/npos/Pages/Seashare.aspx>.

Need to Adopt

28-LS0360\C

Bullard

3/20/13

CS FOR HOUSE BILL NO. 110()

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-EIGHTH LEGISLATURE - FIRST SESSION

BY

Offered:

Referred:

Sponsor(s): REPRESENTATIVES SEATON, Gara

A BILL

FOR AN ACT ENTITLED

1 **"An Act prohibiting the use of barbed hooks in certain freshwater areas."**

2 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

3 *** Section 1.** AS 16.05 is amended by adding a new section to read:

4 **Sec. 16.05.422. Prohibition on the use of barbed hooks.** (a) A person may
5 not use a barbed hook when participating in a freshwater fishery for a species that may
6 not be retained under a regulation adopted by the Board of Fisheries.

7 (b) The Board of Fisheries may prohibit the use of barbed hooks in a
8 freshwater fishery coincident with a fishery for a species that may not be retained
9 under a regulation adopted by the Board of Fisheries.

10 (c) In this section,

11 (1) "barbed hook" means a hook with at least one subsidiary point
12 facing in a different direction from that of the main point of the hook; "barbed hook"
13 does not include a hook from which all barbs have been pinched down, filed off, or
14 otherwise removed;

15 (2) "freshwater" means all inland water;

1
2
3
4

(3) "inland water" means water separated from salt water at the mouths of creeks and streams and rivers at a line between the extremities of the banks of a river at a mean low tide or at a point to be determined and adequately marked by the department.

HOUSE RESOLUTION NO.

**IN THE LEGISLATURE OF THE STATE OF ALASKA
TWENTY-EIGHTH LEGISLATURE - FIRST SESSION**

BY

**Introduced:
Referred:**

A RESOLUTION

1 **Requesting that the North Pacific Fishery Management Council take action to reduce**
2 **the quantity of Chinook salmon bycatch in the Gulf of Alaska and Bering Sea trawl**
3 **fisheries by setting new limits in the Gulf of Alaska trawl fisheries and lowering the**
4 **existing limits in the Gulf of Alaska and Bering Sea pollock fisheries to at least half of**
5 **the current limits.**

6 **BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES:**

7 **WHEREAS** the Chinook salmon, the official state fish, is of critical importance to the
8 state, providing significant income to the state and its residents through commercial and
9 charter fisheries, and providing a critical source of food taken in recreational and subsistence
10 fisheries; and

11 **WHEREAS** the Chinook salmon is a cultural icon for both Native and non-Native
12 Alaskans; and

13 **WHEREAS**, in 2012, Chinook salmon runs were dramatically low, and disaster
14 declarations were made for Upper Cook Inlet and the Yukon and Kuskokwim Rivers; and

15 **WHEREAS**, in 2012, economic losses to the state for commercial and recreational

1 fisheries were over \$34,000,000, not including significant effects on subsistence users and on
2 the cultural and spiritual values of Alaskans; and

3 **WHEREAS**, in 2012, setnet fisheries in Upper Cook Inlet were almost entirely shut
4 down for fear of intercepting hundreds of Chinook salmon; and

5 **WHEREAS**, in 2012, recreational fisheries for Chinook salmon on the Kenai River
6 were completely shut down; and

7 **WHEREAS**, in 2012, subsistence fisheries in the Yukon and Kuskokwim Rivers were
8 under severe restrictions, and, despite those restrictions, many escapement goals were not
9 met; and

10 **WHEREAS** Chinook salmon stocks from Alaska are caught and discarded in the
11 Bering Sea and Gulf of Alaska pollock fisheries and other trawl fisheries in the Gulf of
12 Alaska; and

13 **WHEREAS** Chinook salmon bycatch is a direct and controllable source of mortality
14 for extremely valuable and declining salmon runs throughout the state; and

15 **WHEREAS** the Chinook salmon bycatch cap in the Bering Sea pollock fishery is set
16 at 60,000, which is more than the entire subsistence fishery on the Yukon River; and

17 **WHEREAS** the Chinook salmon bycatch cap in the Gulf of Alaska pollock fishery is
18 set at 25,000, which is more than the 10-year average bycatch in the fishery; and

19 **WHEREAS** the Gulf of Alaska bycatch allowance represented 20 percent of the 2011
20 Cook Inlet, Prince William Sound, Kodiak, Chignik, and Alaska Peninsula sport, subsistence,
21 and commercial Chinook salmon harvest and will likely represent a greater percentage of the
22 2012 harvest; and

23 **WHEREAS** the other Gulf of Alaska trawl fisheries, other than the pollock fishery,
24 currently operate without any bycatch limits; and

25 **WHEREAS** the North Pacific Fishery Management Council is considering a cap on
26 Gulf of Alaska fisheries, other than the pollock fishery, and is initiating a catch share program
27 for the Central Gulf of Alaska trawl fisheries, which could lead to the adoption of regulations
28 that would further reduce bycatch;

29 **BE IT RESOLVED** that the House of Representatives requests that the North Pacific
30 Fishery Management Council take action to reduce Chinook salmon bycatch in the Gulf of
31 Alaska and Bering Sea trawl fisheries by setting new limits in the Gulf of Alaska trawl

1 fisheries and lowering existing limits in the Bering Sea and Gulf of Alaska pollock fisheries to
2 at least half of the current limits and to further reduce bycatch in any Gulf of Alaska catch
3 share program; and be it

4 **FURTHER RESOLVED** that the House of Representatives requests that the North
5 Pacific Fishery Management Council require 100 percent observer coverage in all Gulf of
6 Alaska trawl fisheries to provide accurate estimates of bycatch.

7 **COPIES** of this resolution shall be sent to the Honorable Sean Parnell, Governor of
8 Alaska; and all members of the North Pacific Fishery Management Council.

HOUSE RESOLUTION NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-EIGHTH LEGISLATURE - FIRST SESSION

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Introduced:

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A RESOLUTION

1 **Requesting that the North Pacific Fishery Management Council take action to reduce**
2 **the quantity of Chinook salmon bycatch in the Gulf of Alaska and Bering Sea trawl**
3 **fisheries by setting new limits in the Gulf of Alaska trawl fisheries and lowering the**
4 **existing limits in the Gulf of Alaska and Bering Sea pollock fisheries to at least half of**
5 **the current limits.**

6 **BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES:**

7 **WHEREAS** the Chinook salmon, the official state fish, is of critical importance to the
8 state, providing significant income to the state and its residents through commercial and
9 charter fisheries, and providing a critical source of food taken in recreational and subsistence
10 fisheries; and

11 **WHEREAS** the Chinook salmon is a cultural icon for both Native and non-Native
12 Alaskans; and

13 **WHEREAS**, in 2012, Chinook salmon runs were dramatically low, and disaster
14 declarations were made for Upper Cook Inlet and the Yukon and Kuskokwim Rivers; and

15 **WHEREAS**, in 2012, economic losses to the state for commercial and recreational

1 fisheries were over \$34,000,000, not including significant effects on subsistence users and on
2 the cultural and spiritual values of Alaskans; and

3 **WHEREAS**, in 2012, setnet fisheries in Upper Cook Inlet were almost entirely shut
4 down for fear of intercepting hundreds of Chinook salmon; and

5 **WHEREAS**, in 2012, recreational fisheries for Chinook salmon on the Kenai River
6 were completely shut down; and

7 **WHEREAS**, in 2012, subsistence fisheries in the Yukon and Kuskokwim Rivers were
8 under severe restrictions, and, despite those restrictions, many escapement goals were not
9 met; and

10 **WHEREAS** Chinook salmon stocks from Alaska are caught and discarded in the
11 Bering Sea and Gulf of Alaska pollock fisheries and other trawl fisheries in the Gulf of
12 Alaska; and

13 **WHEREAS** Chinook salmon bycatch is a direct and controllable source of mortality
14 for extremely valuable and declining salmon runs throughout the state; and

15 **WHEREAS** the Chinook salmon bycatch cap in the Bering Sea pollock fishery is set
16 at 60,000, which is more than the entire subsistence fishery on the Yukon River; and

17 **WHEREAS** the Chinook salmon bycatch cap in the Gulf of Alaska pollock fishery is
18 set at 25,000, which is more than the 10-year average bycatch in the fishery; and

19 **WHEREAS** the other Gulf of Alaska trawl fisheries, other than the pollock fishery,
20 currently operate without any bycatch limits; and

21 **WHEREAS** the North Pacific Fishery Management Council is considering a cap on
22 Gulf of Alaska fisheries, other than the pollock fishery, and is initiating a catch share program
23 for the Central Gulf of Alaska trawl fisheries, which could lead to the adoption of regulations
24 that would further reduce bycatch;

25 **BE IT RESOLVED** that the House of Representatives requests that the North Pacific
26 Fishery Management Council take action to reduce Chinook salmon bycatch in the Gulf of
27 Alaska and Bering Sea trawl fisheries by setting new limits in the Gulf of Alaska trawl
28 fisheries and lowering existing limits in the Bering Sea and Gulf of Alaska pollock fisheries to
29 at least half of the current limits and to further reduce bycatch in any Gulf of Alaska catch
30 share program; and be it

31 **FURTHER RESOLVED** that the House of Representatives requests that the North

- 1 Pacific Fishery Management Council require 100 percent observer coverage in all Gulf of
- 2 Alaska trawl fisheries to provide accurate estimates of bycatch.
- 3 **COPIES** of this resolution shall be sent to the Honorable Sean Parnell, Governor of
- 4 Alaska; and all members of the North Pacific Fishery Management Council.

Draft Alaska Legislature Resolution

Requesting the North Pacific Fishery Management Council take action to reduce Chinook salmon bycatch in the Gulf of Alaska and Bering Sea trawl fisheries by setting new limits in Gulf fisheries and lowering existing limits in the Bering Sea and Gulf pollock fisheries to at least half of the current limits.

WHEREAS Chinook salmon, the official fish of Alaska, are of critical importance to the state of Alaska, providing for significant income to the state and its residents via commercial and charter fisheries, a critical source of food via recreational and subsistence fisheries and a cultural icon for both Native and non-Native Alaskans; and

WHEREAS Chinook salmon runs were dramatically low in 2012, with disaster declarations for the Upper Cook Inlet, Yukon and Kuskokwim Rivers; and

WHEREAS economic losses to the State of Alaska for commercial and recreational fisheries alone was over \$34 million, not including significant impacts to subsistence users and economic, cultural and spiritual values to Alaskans; and

WHEREAS setnetters in Upper Cook Inlet were almost entirely shut down in 2012 for fear of intercepting hundreds of Chinook salmon; and

WHEREAS recreational fisheries for Chinook salmon on the Kenai River were completely shut down in 2012, and

WHEREAS subsistence fisheries in the Yukon and Kuskokwim Rivers were under severe restrictions in 2012 and despite these restrictions many escapement goals were still not met;

WHEREAS these same Chinook salmon are caught and discarded in the pollock fisheries in the Bering Sea and Gulf of Alaska and other trawl fisheries in the Gulf of Alaska; and

WHEREAS this bycatch is a direct and controllable source of mortality for extremely valuable and declining salmon runs throughout the State; and

WHEREAS the Chinook salmon bycatch cap in the Bering Sea pollock fishery is set at 60,000 Chinook salmon, which is more than the entire subsistence fishery on the Yukon River; and

WHEREAS the Chinook salmon bycatch cap in the Gulf of Alaska pollock fishery is set at 25,000 Chinook salmon, which exceeds the 10 year average bycatch in the fisheries; and

WHEREAS the other Gulf of Alaska trawl fisheries beyond the pollock fishery currently operate under no limit; and

WHEREAS the Council is currently considering a cap on the non-pollock fisheries in the Gulf of Alaska and is initiating a catch share program for Central Gulf of Alaska trawl fisheries which should reduce bycatch further; and

BE IT RESOLVED that the Alaska State Legislature requests the North Pacific Fishery Management Council take action to reduce Chinook salmon bycatch in the Gulf of Alaska and Bering Sea trawl fisheries by setting new limits in Gulf fisheries and lowering existing limits in the Bering Sea and Gulf pollock fisheries to at least half of the current limits, and to further reduce bycatch in any Gulf of Alaska catch share program.

BE IT FURTHER RESOLVED that the Alaska Legislature requests the North Pacific Fishery Management Council require at least 100% observer coverage in all trawl fisheries in the Gulf of Alaska to provide accurate estimates of bycatch.

COPIES should be sent to Governor Sean Parnell and all members of the North Pacific Fishery Management Council.

Whereas in 2011 the combined Sport, Subsistence, and Commercial harvest of Chinook in the Cook Inlet, Prince William Sound, Kodiak, Chignik and Alaska Peninsula fisheries was 122,000 Chinook Salmon

Whereas the Gulf of Alaska Bycatch allowance represents 20 percent of the 2011 Cook Inlet, Prince William sound, Kodiak, Chignik and Alaska Peninsula Sport, Subsistence, and Commercial Chinook harvest and likely a greater percentage of the 2012 harvest.

CONCEPTUAL AMENDMENT #1

Adopted

OFFERED IN THE HOUSE

BY REPRESENTATIVE SEATON

TO: HR6

1 Page 2, following line 28:

2 Insert new material to read:

3 “**WHERE AS**, the House of Representatives acknowledges and appreciates
4 the work that has been done by the trawl industry and the North Pacific Fishery
5 Management Council to reduce bycatch, and encourages the trawl industry and the
6 council to further reduce bycatch; and be it”

7

8 Page 2, line 29:

9 Delete “**BE IT**”

10 Insert “**FURTHER**”

CONCEPTUAL AMENDMENT

#1

alpha

OFFERED IN THE HOUSE

BY REPRESENTATIVE SEATON

TO: HR6

1 Page 2, following line 28:

2 Insert new material to read:

3 **“WHERE AS,** the House of Representatives acknowledges and appreciates
4 the work that has been done by the trawl industry and the North Pacific Fishery
5 Management Council to reduce bycatch, and encourages the trawl industry and the
6 council to further reduce bycatch; and be it”

7

8 Page 2, line 29:

9 Delete **“BE IT”**

10 Insert **“FURTHER”**

Conceptual whereas after line 22 following #2
eds

WHEREAS SeaShare is a non-profit organization that partners the seafood industry with the nation's food bank network to utilize edible bycatch as a source of nutrition for hunger-relief; and

Conceptual amendments *(Henson)*

Page 2, Line 15

Whereas, there exist salmon excluders, nets that maximize salmon exclusion, with new designs and concepts coming out regularly to reduce Chinook and chum salmon bycatch

Page 3, Line 7

Be it further resolved to expand the SeaShare program to deliver more or all of the edible bycatch to Alaskans and not out of state

Alaska State Legislature

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House Fisheries Committee

Representative Paul Seaton, Chair

Timeline:

Salmon Bycatch Management Measures in Bering Sea and Gulf of Alaska Groundfish Fisheries

- 1982: "foreign fishing days," when the groundfish harvest was primarily taken by foreign boats: catch limit of 55,250 Chinook salmon. This limit was allocated among the nations participating in the fishery, and any nation which exceeded their limit was not allowed to fish in much of the Bering Sea for the rest of the season
- 1990: "penalty box" system put in place. Individual vessels with high bycatch rates were to be prohibited from fishing for a set period of time. This program was never put into place because of due process issues and observer data concerns.
- 1994: Bering Sea Chum salmon savings area adopted: fixed area closure which is closed to all trawling Aug. 1-31 and remains closed if 42,000 chum salmon are caught in the Catcher Vessel Operating Area (CVOA) between August 15 and October 14. Regulation still in place, but all vessels are currently exempt under the rolling hot spot system (Amendment 84).
- 1995: Bering Sea Chinook salmon savings area adopted: areas closed when 29,000 Chinook salmon are caught. Timing of closures varied based on when the trigger was exceeded. This regulation is not in place since 2011 when Amendment 91 went into effect.
- 2006: Bering Sea Rolling Hot Spot system put in place. Vessels are exempt from salmon savings areas if they are participating in the rolling hot spot program. The rolling hot spot program, administered by the pollock fisheries, is designed to move pollock boats away from the areas of highest salmon bycatch throughout the season. The areas are not fixed in location, but adjust through time to the changing location of high bycatch areas.

Alaska State Legislature

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House Fisheries Committee

Representative Paul Seaton, Chair

2011: Amendment 91 with hard caps on Bering Sea Chinook salmon bycatch goes into effect.

Amendment 91 includes an overall cap of 60,000 Chinook salmon if the pollock fishery is participating in approved incentive plans, or an overall hard cap of 47,591 if the industry is not participating in approved incentive plans. If they are participating in approved incentive plans, they may exceed the performance standard of 47,591 in two out of any seven years (but only up to 60,000 Chinook salmon). If they exceed the performance standard in a third year out of any seven the cap drops to 47,591 permanently. Amendment 91 also requires that all participants in the pollock fishery must have at least 100% observer coverage: those vessels which were previously required to have 200% observer coverage are still required to do so.

2012: Cap of 25,000 Chinook salmon goes into effect for the Gulf of Alaska pollock fleet.

Louie Flora

Subject: FW: Requested Information re: Harvest Data of Chinook salmon
Attachments: West of Yakutat catches.xlsx

From: Mulligan, Ben (DFG) [<mailto:ben.mulligan@alaska.gov>]
Sent: Wednesday, February 27, 2013 10:24 AM
To: Louie Flora
Subject: Requested Information re: Harvest Data of Chinook salmon

Louie,

Bob Clark asked me to pass this along to you. Attached is a table of directed harvests of Chinook salmon in commercial, subsistence/personal use, and recreational fisheries west of Yakutat (i.e. Prince William Sound, Cook Inlet, Kodiak, Chignik, South Peninsula) and bycatch in federally managed fisheries (i.e., NMFS area 610, 620, and 630) during 1996-2011. Harvest for some of these fisheries is not yet available. I understand the original request was for harvests west of Prince William Sound but after talking to Bob that was proving difficult to do with the way NMFS Areas are designated relative to ADF&G Management Areas.

If you have any more questions or need more information please let us know.

Ben Mulligan
Legislative Liaison
ADF&G
(907) 465-6137

KING BYCATCH IN THE GULF OF ALASKA

Table 1. Chinook Salmon Mortality in Gulf of Alaska Groundfish Fisheries

SOURCE: NMFS

Year	Annual Total	GOA Pollock Fisheries				Annual	Other Fisheries Annual
		First Quarter	Second Quarter	Third Quarter	Fourth Quarter		
1991	38,894	3,239	538	1,799	2,862	8,439	30,455
1992	16,787	2,289	2,663	1,457	1,801	8,210	8,578
1993	19,260	6,499	157	2,730	4,192	13,578	5,682
1994	13,615	3,685	88	1,973	1,474	7,219	6,396
1995	14,652	1,408	32	2,342	1,136	4,917	9,735
1996	15,761	4,802	57	6,421	100	11,380	4,381
1997	15,230	4,622	48	4,742	30	9,443	5,787
1998	16,984	1,672	1	8,550	4,005	14,228	2,755
1999	30,600	10,408	35	5,981	10,003	26,428	4,173
2000	26,729	4,298	2,313	9,744	2,058	18,413	8,317
2001	15,104	4,204	3,107	754	1,466	9,531	5,573
2002	12,920	1,505	640	553	2,463	5,161	7,758
2003	15,396	765	389	948	2,298	4,400	10,995
2004	17,777	3,632	2,176	2,207	5,137	13,152	4,625
2005	31,270	11,100	5,123	1,076	10,629	27,927	3,343
2006	19,004	2,918	4,292	4,859	3,875	15,944	3,060
2007	40,539	1,487	28,424	1,309	3,958	35,177	5,362
2008	16,176	578	7,682	387	2,048	10,696	5,480
2009	8,397	704	1,423	656	412	3,195	5,202
2010	54,559	4,963	2,045	4,841	32,929	44,779	9,780
2011	20,769	1,716	1,260	1,508	9,348	13,832	6,937
2012	5,909	2,904	864	-	-	3,768	2,141

1991 - 2002: Blend data. Week end date was used to determine quarters. Week end dates do not always match quarter dates.

2003 - Current: Catch Accounting System.

Due to changes in regulatory pollock season dates from 1991 to 2001 and to match current pollock season dates, data were grouped by quarter.

First Quarter Jan 1 - Feb 28
 Second Quarter Mar 1 - May 31
 Third Quarter Jun 1 - Sep 30
 Fourth Quarter Oct 1 - Dec 31

Updated 6/27/2012

KING SALMON BYCATCH SKYROCKETED TO OVER 50,000 FISH IN 2010

42,000 carried

2012 Alaska Commercial Salmon Harvests — Exvessel Values

Source: ADF&G, Revised December 3, 2012

PRELIMINARY DATA: 2012 Salmon Season



Area	Species	Average Weight (in pounds)	Average Price per Pound	Number of Fish (in thousands)	Pounds of Fish (in thousands)	Estimated Exvessel Value (in thousand \$)
SOUTHEAST/YAKUTAT	CHINOOK	13.02	\$4.50	266	3,461	\$15,566
	SOCKEYE	6.36	\$1.55	817	5,193	\$8,047
	COHO	6.35	\$1.38	1,949	12,380	\$17,077
	PINK	3.57	\$0.41	20,703	73,836	\$29,955
	CHUM	9.28	\$0.84	10,611	98,494	\$82,629
	totals				34,346	193,364
PRINCE WILLIAM SOUND	CHINOOK	20.94	\$5.33	12	251	\$1,339
	SOCKEYE	6.72	\$1.70	3,680	24,736	\$41,950
	COHO	8.15	\$1.06	202	1,645	\$1,743
	PINK	3.77	\$0.48	26,749	100,779	\$48,504
	CHUM	6.66	\$0.69	3,746	24,933	\$17,314
	totals			34,390	152,345	\$110,849
COOK INLET	CHINOOK	14.53	\$2.85	2	36	\$103
	SOCKEYE	6.70	\$1.51	3,280	21,966	\$33,149
	COHO	6.20	\$0.75	104	643	\$482
	PINK	3.45	\$0.36	727	2,508	\$905
	CHUM	8.17	\$0.57	334	2,732	\$1,570
	totals			4,448	27,884	\$36,209
BRISTOL BAY	CHINOOK	13.9	\$0.85	17	237	\$202
	SOCKEYE	5.7	\$1.00	20,557	117,833	\$117,833
	COHO	5.4	\$0.55	107	577	\$317
	PINK	3.1	\$0.40	910	2,849	\$1,140
	CHUM	6.7	\$0.35	666	4,465	\$1,563
	totals			22,258	125,961	\$121,054
KODIAK	CHINOOK	7.37	\$0.97	15	109	\$106
	SOCKEYE	5.56	\$1.41	2,234	12,414	\$17,504
	COHO	6.96	\$0.58	208	1,451	\$841
	PINK	3.58	\$0.40	16,873	60,417	\$24,167
	CHUM	7.88	\$0.58	866	6,824	\$3,958
	totals			20,196	81,214	\$46,575
CHIGNIK	CHINOOK	13.44	\$0.97	4	49	\$47
	SOCKEYE	6.81	\$1.05	1,800	12,263	\$12,876
	COHO	6.78	\$0.43	33	226	\$97
	PINK	3.28	\$0.32	138	452	\$145
	CHUM	8.97	\$0.41	171	1,533	\$629
	totals			2,145	14,523	\$13,794
AK PEN/ALEUTIAN IS.	CHINOOK	15.96	\$0.99	9	139	\$133
	SOCKEYE	5.90	\$0.84	2,765	16,316	\$13,714
	COHO	6.30	\$0.45	124	779	\$345
	PINK	3.10	\$0.35	651	2,020	\$619
	CHUM	7.30	\$0.43	894	6,544	\$2,714
	totals			4,443	25,798	\$17,524
KUSKOKWIM	CHINOOK	15.3	\$0.85	8	125	\$107
	SOCKEYE	6.8	\$0.85	91	616	\$523
	COHO	6.1	\$0.73	143	876	\$642
	PINK					
	CHUM	6.6	\$0.77	151	1,000	\$768
	totals			393	2,617	\$2,040
YUKON	CHINOOK					
	SOCKEYE	6.00	\$0.75	< 1	< 1	< \$1
	COHO	6.15	\$1.18	75	460	\$542
	PINK					
	CHUM	6.25	\$0.68	609	3,811	\$2,581
	totals			684	4,270	\$3,123
NORTON SOUND	CHINOOK					
	SOCKEYE	6.91	\$1.45	< 1	1	\$1
	COHO	6.61	\$1.47	37	245	\$361
	PINK	2.40	\$0.36	205	492	\$175
	CHUM	6.77	\$0.52	63	425	\$222
	totals			305	1,163	\$759
KOTZEBUE	CHINOOK					
	SOCKEYE					
	COHO					
	PINK					
	CHUM	7.7	\$0.32	228	1,751	\$568
	totals			228	1,751	\$568
ALASKA TOTALS	CHINOOK	13.25	\$3.99	333	4,408	\$17,602
	SOCKEYE	6.00	\$1.16	35,225	211,338	\$245,596
	COHO	6.46	\$1.16	2,983	19,280	\$22,448
	PINK	3.63	\$0.43	66,957	243,354	\$105,609
	CHUM	8.32	\$0.75	18,340	152,511	\$114,515
	totals			123,837	630,891	\$505,769

Preliminary figures may not total exactly due to rounding.
 Estimates based on fish tickets and reports from Area Managers.
 DATA NOT FOR LEGAL INTERPRETATIONS.

^a No escapement adjustments were made for Chinook salmon that spawn below the weir, or those removed by the sport and subsistence fisheries above the weir.

^b Late-run sockeye salmon total includes a post-weir escapement estimate.

COMMERCIAL FISHERY

The CMA was open to commercial salmon fishing for 84 days during the 2012 commercial salmon season. The first fishing period occurred on June 8 and the CMA closed to commercial salmon fishing (September 9) shortly after area salmon processors ceased operations. In 2012, 70 permit holders (including the department's test fishery permit) made a total of 2,915 landings (Table 2).

Table 2.- Total commercial salmon harvests, including home pack, and department test fishery from the Chignik Management Area by species and year, 2002 through 2012.

Year	Permits Making		Chignik Management Area Harvest					
	Deliveries	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
2002	42	2,432	1,521	1,050,553	46,372	66,050	54,559	1,222,055
2003	44	2,073	3,068	1,100,297	103,896	502,638	64,044	1,773,943
2004	33	1,346	2,520	704,652	37	2,380	505	711,473
2005	97	1,669	3,408	1,152,133	6,956	194,045	8,821	1,365,363
2006	49	2,066	2,256	902,709	39,221	383,547	61,630	1,389,363
2007	56	2,101	1,773	834,547	73,277	2,019,748	78,553	3,007,898
2008	55	2,217	970	687,270	161,536	2,389,958	209,325	3,449,059
2009	56	2,172	3,319	1,198,105	110,373	1,408,339	256,425	2,976,561
2010	66	2,532	10,380	1,379,785	159,198	489,781	581,329	2,620,473
2011	65	2,617	6,586	2,497,004	76,792	905,166	269,503	3,755,051
2012	70	2,915	3,687	1,800,121	33,316	137,706	171,112	2,145,942
Averages								
2002-11	56	2,123	3,580	1,150,706	77,766	836,165	158,469	2,227,124
2007-11	60	2,328	4,606	1,319,342	116,235	1,442,598	279,027	3,161,808

Harvest

Chinook Salmon

A total of 3,636 Chinook salmon were commercially harvested (excluding home pack and the department's test fishery) in 2012 (Table 3), which was similar to recent average harvests (Table 2). The majority of the 2012 CMA Chinook salmon harvest occurred in the Central and Western districts (Table 3). Most of the Chinook salmon harvest occurred from late June until the end of July.

Sockeye Salmon

A total of 1,797,519 sockeye salmon were commercially harvested (excluding home pack and the department's test fishery) in the CMA during 2012 (Table 3), which was above the prior 5- and 10-year average harvests (Table 2). The majority of the 2012 CMA sockeye salmon harvest came from the Chignik Bay and Central districts (Table 3).

In 2012, Cape Igvak opened to commercial salmon fishing for the first time on June 9 and Southeastern District Mainland (SEDM) opened to commercial salmon fishing on June 16. A total of 157,604

**KODIAK MANAGEMENT AREA
COMMERCIAL SALMON HARVEST SUMMARY
(INSEASON HARVEST ESTIMATES)**

	DAILY HARVEST	TOTAL THROUGH September 9, 2012
Chinook	2	14,046
Sockeye	3,240	2,152,851
Coho	4,088	179,903
Pink	1,771	16,611,759
Chum	4,152	856,596
TOTAL	13,253	19,815,155

Narrative:

Catch estimates are based on inseason processor reports, and will be updated as additional information and fishtickets become available.

**ESTIMATED SALMON CATCH TO DATE
BY GEOGRAPHIC AREA / FISHERY, WITHIN THE KODIAK MANAGEMENT AREA
September 9, 2012**

	Chinook	Sockeye	Coho	Pink	Chum
Karluk, NW Kodiak, & SW Afognak	5,932	827,597	106,522	8,871,450	329,507
Ayakulik, Halibut Bay, & Sturgeon	560	230,580	6,264	821,389	12,781
Olga, Moser, & Alitak Bay	3	184,024	941	139,165	3,254
Cape Alitak & Humpy-Deadman	228	166,444	1,434	1,408,204	23,458
East & Northeast Kodiak	2,276	168,463	9,998	783,608	178,341
Duck, Izhut, & Kitoi Bays	2,389	105,717	40,380	2,904,124	221,061
NW Afognak, Shuyak, & Perenosa	149	81,023	7,686	1,017,884	20,390
SE Afognak & Raspberry	55	4,713	5,155	581,317	1,167
Cape Igvak & Wide Bay	2,138	352,296	978	30,548	44,291
Mid & North Mainland	316	31,994	545	54,070	22,346
TOTAL	14,046	2,152,851	179,903	16,611,759	856,596

Area M Salmon Harvest Summary
COMMERCIAL SALMON HARVEST SUMMARY
(INSEASON HARVEST ESTIMATES)

Species	Daily Harvest	Total Through September 4, 2012
Chinook	0	9,827
Sockeye	96	2,753,739
Coho	0	122,878
Pink	0	660,781
Chum	0	892,254
TOTAL	96	4,439,479

Narrative:

Catch estimates are based on inseason processor reports, and will be updated as additional information and fishtickets become available.

Estimated Salmon Catch to Date, by Geographic Area
September 4, 2012

South Peninsula	Chinook	Sockeye	Coho	Pink	Chum
Post June McGinty Point to Moss Cape	15	35,963	1,050	16,196	15,989
Post June Belkofski Bay to Cold Bay	4	14,904	38	7,543	2,350
Post June Thin Point Section	0	0	0	0	0
Post June Morzhovoi Bay to South Unimak	288	73,384	47,253	23,590	74,447
Post June Shumagin Islands	698	129,071	37,321	140,456	100,979
Southeastern District Mainland	154	153,401	1,361	37,986	31,370
Northwest Stepovak Section (7/1-7/25)	5	62,383	173	1,735	2,081
June Shumagin Islands	1,943	637,803	2	89,476	183,692
June South Unimak	5,651	890,948	10	170,417	206,097
June South Unimak & Shumagin Islands	7,594	1,528,751	12	259,893	389,789
Total South Peninsula	8,758	1,997,857	87,208	487,399	617,005
North Peninsula					
Northwestern District	6	48,268	1,088	748	164,246
Black Hills	55	57,338	4,177	282	89,857
Nelson Lagoon	282	118,432	30,392	8	5,909
Moller and Herendeen Bays	0	0	0	0	0
Port Moller to Outer Port Heiden	726	531,844	13	103	15,237
Inner Port Heiden	0	0	0	0	0
Cinder River	0	0	0	0	0
Total North Peninsula	1,069	755,882	35,670	1,141	275,249
Total Aleutian Islands	0	0	0	172,241	0
TOTAL AREA M	9,827	2,753,739	122,878	660,781	892,254

* Confidential information

**ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES
NEWS RELEASE**



*Cora Campbell, Commissioner
Jeff Regnart, Director*



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Lower Cook Inlet Area Office

3298 Douglas Place
Homer, AK 99603
Date Issued: 1/18/2013
Time Issued: 11 a.m.

2012 PRELIMINARY LOWER COOK INLET SALMON SEASON SUMMARY

The preliminary estimate of the 2012 Lower Cook Inlet Area commercial salmon harvest as based on current fish ticket data is 498,597 salmon. The harvest was composed of 256,267 pink, 186,581 sockeye, 55,434 chum, 182 coho, and 133 Chinook salmon. The harvest was comprised of 382,895 (77%) commercial common property fishery (CPF) fish, and 115,702 (23%) hatchery cost recovery and broodstock fish.

Southern District

The 2012 preseason commercial harvest forecast for natural production in the Southern District was 1,900 sockeye and 6,200 pink salmon. Hatchery releases from previous years at Leisure Lake, Hazel Lake, Tutka Bay, Port Graham and English Bay were anticipated to contribute 8,500 sockeye salmon to the 2012 commercial harvest. The commercial salmon fishing season in the Southern District began on Friday, June 1. Purse seine harvest for the 2012 season was 6,396 sockeye and 157,770 pink salmon. This compares to a previous 10-year harvest average of 78,561 for sockeye and 10,702 for pink salmon. The set gillnet harvest was 10,260 sockeye and 10,305 pink salmon. The previous 10-year harvest average for this gear type is 30,597 sockeye and 3,730 pink salmon. Preliminary estimates show that pink salmon escapement in index streams was near the midpoint of the cumulative sustainable escapement goal (SEG) range of 59,700–178,500 fish. The weir at the English Bay River passed 3,985 sockeye salmon. This was below the SEG of 6,000–13,500 for this system.

Outer District

The 2012 preseason commercial harvest forecast for the Outer District was 16,700 sockeye and 256,000 pink salmon. The commercial salmon fishing season began in this district on Thursday, July 26. Overall harvest was 77 sockeye, 69,259 pink and 51,313 chum salmon. This harvest compares to previous 10-year averages of 14,558 sockeye, 422,428 pink and 24,149 chum salmon. Preliminary escapement survey indices for chum salmon were near the upper end of the SEG range of 12,850–34,600. Pink salmon were in the lower end of their SEG range of 54,500–237,200. Aerial surveys of Desire Lake documented 8,840 sockeye salmon. This is within the

districts for much of the season. This allowed for targeted fishing effort on wild pink salmon and expanded area for targeted fishing effort on enhanced pink salmon. Inseason pink salmon aerial survey escapement estimates were below anticipated escapement thresholds in the Eshamy District for the entirety of the 2012 season, resulting in some time and area restrictions in the Southwestern District to reduce fishing effort on Eshamy District pink salmon stocks traveling through migratory corridors. The area-under-the-curve estimate of pink salmon escapement used for direct comparison with the SEG goals is not yet available, but considering that inseason pink salmon escapement indices were above anticipated aerial survey counts, overall escapement was likely within the even-year SEG range for all districts except Eshamy District. Aerial surveys ended early this year because of poor weather.

COHO SALMON

The VFDA coho salmon run was anticipated to be 129,000 fish. VFDA's broodstock objective was 1,000 coho salmon. Total CPF harvest of coho salmon in PWS (excluding Copper River and Bering River districts) was 28,000 fish. This was the lowest PWS CPF coho salmon harvest since 2010, when 15,000 fish were harvested. The majority of CPF coho salmon harvested in the Southwestern (9,000) and Coghill (10,200) districts are assumed to be of enhanced stock origin.

Table 1.—Preliminary Area E salmon harvest, 2012.

District	Chinook	Sockeye	Coho	Pink	Chum	Total
Bering River	1	0	46,095	1	0	46,097
Copper River	11,617	1,855,903	123,957	6,192	29,219	2,026,888
Eastern	30	9,671	7,222	10,509,665	99,152	10,625,740
Northern	1	534	496	3,638,861	1,999	3,641,891
Coghill	155	427,574	10,248	3,252,752	2,409,957	6,100,686
Northwestern	0	58	28	52,697	37	52,820
Eshamy	65	1,281,219	286	105,307	278,706	1,665,583
Southwestern	87	83,973	8,999	5,607,558	173,556	5,874,173
Montague	16	2,505	177	173,557	293,205	469,460
Southeastern	30	3,324	650	225,259	35,061	264,324
Unakwik	0	1,897	0	49	150	2,096
CPF Total	12,002	3,666,658	198,158	23,571,898	3,321,042	30,769,758
Hatchery						
Solomon Gulch	0	0	1,000 ^a	1,383,133	2,675	1,386,808
Cannery Creek	0	0	0	106,625	0	106,625
Wally Noerenberg	0	0	2,700 ^b	1,042,350	422,336	1,467,386
Main Bay	0	13,793	0	0	0	13,793
Armin F. Koernig	0	0	0	645,252	0	645,252
Hatchery total^c	0	13,793	3,700	3,177,360	425,011	3,619,864
PWS Total Harvest	12,002	3,680,451	201,858	26,749,258	3,746,053	34,389,622

^a SGH coho salmon broodstock needs as stated in AMP (no harvest as of October 2).

^b WNH coho salmon broodstock needs as stated in AMP (no harvest as of October 2).

^c Hatchery sales harvest for operating costs and broodstock harvest.

Table 3.—Page 2 of 2.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1995	17,893	2,951,827	446,954	133,575	529,422	4,079,671
1996	14,306	3,888,922	321,668	242,911	156,501	4,624,308
1997	13,292	4,176,738	152,404	70,933	103,036	4,516,403
1998	8,124	1,219,242	160,660	551,260	95,654	2,034,940
1999	14,383	2,680,510	125,908	16,174	174,541	3,011,516
2000	7,350	1,322,482	236,871	146,482	127,069	1,840,254
2001	9,295	1,826,833	113,311	72,559	84,494	2,106,492
2002	12,714	2,773,118	246,281	446,960	237,949	3,717,022
2003	18,490	3,476,159	101,756	48,789	120,767	3,765,961
2004	26,922	4,926,220	311,056	357,939	146,164	5,768,301
2005	28,171	5,238,168	224,657	48,419	69,740	5,609,155
2006	18,029	2,192,730	177,853	404,111	64,033	2,856,756
2007	17,625	3,316,779	177,339	147,020	77,240	3,736,003
2008	13,333	2,380,135	171,869	169,368	50,315	2,785,020
2009	8,750	2,045,794	153,210	214,321	82,811	2,504,886
2010	9,901	2,828,367	207,256	292,672	228,670	3,566,866
2011	11,248	5,277,440	95,276	34,030	129,202	5,547,196
2012 ^a	2,358	3,093,825	103,452	471,468	278,938	3,950,041
1966-2011 Avg	15,706	2,950,675	302,426	463,242	438,984	4,171,033
2002-2011 Avg	16,518	3,445,491	186,655	216,363	120,689	3,985,717

^a 2012 data preliminary.

Table 4.—Average catches and fishery-specific activities recommended to fill knowledge gaps in catch assessment.

Chinook Fishery	Average catch (1994–2005)	Average catch (2006–2011)	Stock-Specific Catch Assessment
Southeast	Subsistence: 1,000 Commercial: 303,000 Sport: 70,000	Subsistence: 1,000 Commercial: 310,000 Sport: 69,000	Genetics mixed-stock analysis and sampling of troll, sport, and districts 108 and 111 gillnet
Copper River and Prince William Sound	Subsistence: 7,000 Commercial: 50,000 Sport: 10,000	Subsistence: 6,000 Commercial: 21,000 Sport: 9,000	Age-size of commercial catch. CWT recovery of major fisheries at 20% minimum coverage; genetic mixed-stock analysis of major fisheries
Cook Inlet	Subsistence: 1,000 Commercial: 18,000 Sport: 74,000	Subsistence: 1,000 Commercial: 13,000 Sport: 53,000	Comprehensive marine CWT and genetics sampling of Upper subdistrict set gillnet, Kenai Peninsula sport, Tyonek subsistence, Northern District set gillnet, Central District drift gillnet, winter sport fishery in Homer
Kodiak	Subsistence: <1,000 Commercial: 19,000 Sport: 7,000	Subsistence: <1,000 Commercial: 16,000 Sport: 10,000	CWT recovery of major fisheries at 20% minimum coverage; genetic mixed-stock analysis of major fisheries
Chignik/Alaska Peninsula	Subsistence: <1,000 Commercial: 17,000 Sport: 4,000	Subsistence: <1,000 Commercial: 14,000 Sport: 3,000	CWT recovery of major fisheries at 20% minimum coverage; genetic mixed-stock analysis of major fisheries
Bristol Bay	Subsistence: 16,000 Commercial: 75,000 Sport: 8,000	Subsistence: 14,000 Commercial: 49,000 Sport: 9,000	Improved genetic baseline resolution (listed under Table 2)
Kuskokwim	Subsistence: 81,000 Commercial: 31,000 Sport: 2,000	Subsistence: 79,000 Commercial: 22,000 Sport: 1,000	Improved genetic baseline resolution (listed under Table 2)
Yukon	Subsistence: 51,000 Commercial: 66,000 Sport: 1,000	Subsistence: 46,000 Commercial: 17,000 Sport: 1,000	Improved genetic baseline resolution (listed under Table 2)
Norton Sound Kotzebue	Subsistence: 6,000 Commercial: 5,000 Sport: 1,000	Subsistence: 4,000 Commercial: 1,000 Sport: <1,000	Improved genetic baseline resolution (listed under Table 2)
federal waters bycatch (pollock trawl only)	GOA: 13,000 EBS: 37,000	GOA: 21,000 EBS: 46,000	GOA: Improvement in observer coverage (catch and CWT/genetic catch composition). EBS: Sample for CWT at 20% minimum for catch coverage. Both: Improved geographic and stock-specific resolution of bycatch to the individual haul.
Totals	Subsistence: 164,000 Commercial: 760,000 Sport: 176,000 Federal Waters: 50,000	Subsistence: 152,000 Commercial: 463,000 Sport: 155,000 Federal Waters: 67,000	

2012
Catch
In Sea
+
In River

average of 770,000 kings caught in Alaskan fisheries (2006-2011)

8 federal water pollock trawl bycatch constitutes ~8.7% of the above number

Table 1. Estimated escapements and numbers of chinook salmon that were caught, released, and retained in the Kenai River recreational fishery during 1986 through 1991.

Year	Run Component	Numbers of Chinook Salmon			Percent Released	Estimated Escapement ^a
		Caught	Retained	Released		
1986	Early	12,117	7,561	4,556	38	19,519
	Late	15,331	9,004	6,327	41	48,559
	Both	27,448	16,565	10,883	40	68,078
1987	Early	19,119	13,281	5,838	31	12,362
	Late	16,701	12,237	4,464	27	52,787
	Both	35,820	25,518	10,302	29	65,149
1988	Early	18,693	12,747	5,946	32	8,133
	Late	23,238	17,512	5,726	25	34,496
	Both	41,931	30,259	11,672	28	42,629
1989	Early	9,901	7,256	2,645	27	10,736
	Late	12,210	9,127	3,083	25	19,908
	Both	22,111	16,383	5,728	26	30,644
1990	Early ^b	4,973	1,735	3,238	65	8,656
	Late ^b	8,637	6,247	2,390	28	25,770
	Both	13,610	7,982	5,628	41	34,426
1991	Early ^b	3,716	891	2,825	76	9,922
	Late	8,091	6,849	1,242	15	27,943
	Both	11,807	7,740	4,067	34	37,865
All	Early	68,519	43,471	25,048	37	69,328
	Late	84,208	60,976	23,232	28	209,463
	Both	152,727	104,447	48,280	32	278,791

^a Inriver return minus the sport harvest.

^b Release of catch mandatory for all or part of run.

ABSTRACT

The widespread practice of hook-and-release fishing for chinook salmon *Oncorhynchus tshawytscha* in the Kenai River prompted the Alaska Department of Fish and Game to initiate a multi-year investigation of mortality associated with this fishing technique. Findings from four hook-and-release experiments, conducted during 1989 to 1991, are presented in this report.

Short-term (1-5 d) hooking mortality for chinook salmon that were caught and released in the Kenai River recreational fishery was assessed using radio telemetry. Biological and fishery variables were recorded for each of 226 early-run and 220 late-run fish that were tagged during the study. The average mortality was 7.6% for all experiments combined, and ranged from 10.6% in 1989 to 4.0% in 1991. In all experiments, small males suffered the highest mortality when compared to large males and females. Most mortality took place within 72 h of release. The distribution of fishery variables differed among runs, largely due to management regulations, but no relationship was found associating these variables with the fates of radio-tagged fish. The survival of chinook salmon that were injured in the gills or bleeding was significantly reduced; however, the frequency of gilled and bleeding fish was small in all experiments.

Initial movements of radio-tracked fish occurred in both upstream and downstream directions. Late-run salmon that moved downstream to Cook Inlet returned to the river at a significantly lower rate than early-run fish. Movement occurred most frequently during the second half of the day. Upstream movements to spawning destinations were variable, and frequently punctuated by milling behavior. An average of 33 days elapsed between tagging and spawning. Most (81%) early-run fish that were radio tracked spawned in tributary streams with peak spawning occurring in mid-July, while most (96%) late-run fish that were radio tracked spawned in the mainstem with peak activity in mid-August. Spawner destinations within each run were independent of weekly entry times.

KEY WORDS: Kenai River, chinook salmon, *Oncorhynchus tshawytscha*, radio telemetry, transmitters, mortality, hook-and-release, angling variables.

Attention - Kelly

HR6 - House Fisheries Committee

~ Name, fisheries, support, rationale
 ~ so can close state fisheries

representing myself
 My name is Theresa Peterson & I've been living & commercial fishing out of Kodiak w/ my family for over 25 yrs. We are involved in the Tanner crab, cod, halibut & salmon fisheries, ^{my husband} as setnetters & now our son runs the boat seining around the island. We are dependent upon healthy fishery resources for our livelihoods & have weathered many ups & downs over the years as abundance levels wax & wane. We fish within the limits in Alaska & as a result we still have fish to catch.

During times of low returns of species like Chinook, it is incumbent upon fishery managers to be responsive & reduce fishing mortality to provide for the long term health of the resource. State action to protect chinook runs is swift. Emergency Orders shut down commercial fisheries for directed salmon fisheries immediately in times of low returns as the Cook Inlet setnetters experienced last summer. It is painful,

and the economic losses are enormous, but the long term health of the chinook salmon must come 1st

Action to reduce mortality of chinook salmon in the federal arena is a much slower process & it is critical the the NPFMC hear from our State legislatures that Federal Council action must continue to implement management measures to reduce bycatch of Chinook salmon & improve data w/ increased observer coverage.

Alaska is respected worldwide for sustainable fisheries & as state representatives I encourage you to support HR6 & send a message to the NPFMC that bycatch of our iconic chinook salmon must be reduced in federal fisheries.

HOUSE RESOLUTION 6, CHINOOK SALMON BYCATCH

Comments by Myron Naneng

March 19, 2013

House Resolution 6, requesting the North Pacific Fishery Management Council to take action to reduce Chinook salmon bycatch in the Gulf of Alaska and Bering Sea trawl fisheries, is sponsored by the House Fisheries Committee, and is before the committee today for review.

According to the Alaska Department of Fish & Game (ADF&G), Chinook returns to the Kuskokwim River last year were the lowest ever. Local fishermen were arrested when they attempted to feed their families by fishing during a closure.

The failure of the North Pacific Fishery Management Council to limit Chinook bycatch is akin to many other federal overreach problems faced by the citizens of Alaska in managing our resources. In other examples where federal management has over stepped its authority in the way of resource management, the State of Alaska Department of Law has filed litigation on behalf of the citizens of Alaska.

In the situation involving Chinook salmon on the Kuskokwim River, the State of Alaska is prosecuting local residents who attempted to feed their families. The violations were the result of closures due to the lack of Chinook salmon, while at the same time the North Pacific Fishery Council allowed excessive levels of bycatch of the resource.

Instead of prosecuting Alaskan residents, the State of Alaska should be pursuing litigation against the North Pacific Fishery Management Council.

The House Fisheries Committee is hereby requested to consider the following amendment to House Resolution 6:

AMENDMENT

On page 3, line 6, insert the following:

“; and be it

FURTHER RESOLVED that if the North Pacific Fishery Management Council fails to take any significant action in a timely manner, the State of Alaska Department of Law is encouraged to file litigation on behalf of the citizens of Alaska who depend upon this resource as a critical source of food in subsistence and recreational fisheries.”

Quyana.

Raymond Watson, Chairperson
Myron P. Naneng Sr., President
Phone: (907) 643-7300
Fax: (907) 643-9389

AVCP

Association of Village Council Presidents
Administration
Pouch 219, Bethel, AK 99559



Akiachak
Akiak
Alakanuk
Andreafsky
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Atnautluak
Bethel
Bill Moore's Sl.
Chefomak
Chevak
Chuathbaluk
Chuloonawick
Crooked Creek
Eek
Emmonak
Georgetown
Goodnews Bay
Hamilton
Hooper Bay
Lower Kalskag
Upper Kalskag
Casigliuk
Cipnuk
Congiganak
Cotlik
Cwethluk
Cwigillingok
Dine Village
Marshall
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Nwotok
Nighthute
Nunakayak
Nunam Iqua
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Nogamiut
Nscarville
Naimiut
Nlot Station
Ntka's Point
Ntinum
Nunhagak
Ned Devil
Nussian Mission
Nannon Bay
Nectmute
Nt Mary's
Ntony River
Nuluksak
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Nunuk
Nnkumiut

March 12, 2013

Representative Bryce Edgmon
State Capitol, Room 410
Juneau, AK 99801-1182
Fax: 907.465.3445

Dear Representative Edgmon:

The Association of Village Council Presidents (AVCP) is the recognized tribal organization and non-profit Alaska Native regional corporation for its fifty-six member indigenous villages within Western Alaska. Your district includes many of our member tribes in the Yukon and Kuskokwim regions as well as our coastal villages.

As you are well aware, Chinook salmon stocks on the Yukon and Kuskokwim Rivers are essential to the cultural, nutritional and economic well-being and way of life of the tribal villages and peoples we both represent who live along these river drainages. Chinook salmon runs on both the Yukon and Kuskokwim Rivers have declined dramatically in recent years with federal fishery disasters declared for 2008-2012 on the Yukon and 2011-2012 for the Kuskokwim. Chinook salmon runs have declined to the point that commercial fisheries are closed, and subsistence fisheries are seriously restricted. In recent years subsistence fisheries have been restricted to the point where villages are not obtaining the amount of Chinook salmon necessary to meet their basic needs. Despite all these restrictions, on the Yukon River Canadian escapement goals have only been met in two out of the last five years, posing a threat to the future of the salmon runs as well.

At the same time, these very same Chinook salmon are caught and discarded as bycatch in the Bering Sea pollock fishery. The Bering Sea pollock fishery, managed by the North Pacific Fishery Management Council (the Council) and National Marine Fisheries Service, is limited by an overall cap of 60,000 which they are allowed to hit in two out of any seven years without consequence, and by a 47,591 cap in other years. The best information currently available indicates that 50-73% of the Bering Sea pollock fishery's Chinook salmon bycatch is fish of Western Alaska origin. In 2010, an alarming 42% of the bycatch was from coastal Western Alaska (including Bristol Bay, the Kuskokwim and lower Yukon) and another 31% was from the middle and upper Yukon Rivers.


Given the current state of our Chinook salmon runs, and the impacts to our people in terms of food security and economic and cultural well-being, it is simply unacceptable that the pollock fishery has the opportunity to catch 60,000 Chinook salmon in a single year while our people are restricted from meeting their basic subsistence needs.

We understand that the Bush caucus, under your leadership, is considering a letter addressing the issue of salmon bycatch. Given the dire state of Chinook salmon in Western Alaska, it

would be unforgiveable to leave Bering Sea Chinook salmon bycatch out of this letter. We request that you include in the letter a request that the Council significantly reduce the Chinook salmon bycatch limit in the Bering Sea pollock fishery because of the current state of Western Alaska Chinook salmon stocks. We further request that the letter include a request that the pollock fishery be levied a significant fine for each Chinook taken as bycatch and that these funds be used for research into the decline of Western Alaska Chinook stocks.

If you have any questions about this matter please contact me at (907)543-7300. Thank you for your attention to this issue of supreme importance to the region you represent.

Sincerely,
Association of Village Council Presidents



Myron P. Naneng, Sr.
President, AVCP



**ASSOCIATION OF VILLAGE COUNCIL PRESIDENTS
P.O. BOX 219
BETHEL, ALASKA 99559**

**ASSOCIATION OF VILLAGE COUNCIL PRESIDENTS
EXECUTIVE BOARD OF DIRECTORS**

BETHEL, ALASKA

MARCH 5, 2013

RESOLUTION No. 13-03-03

- TITLE:** **Calling for the State of Alaska to Institute Legal Challenges and Take Other Actions to Invalidate the North Pacific Fishery Management Council's Actions Allowing 60,000 Chinook Salmon to be Taken as By-Catch in the Bering Sea Pollock Fishery**
- WHEREAS** The Association of Village Council Presidents (AVCP) is the recognized tribal organization and non-profit Alaska Native regional corporation for its fifty-six member indigenous Native villages within Western Alaska and supports the endeavors of its member villages, and
- WHEREAS** AVCP fully supports its member villages in all aspects of their self-determination, health and well-being, and
- WHEREAS** Healthy and abundant Chinook Salmon stocks of the Yukon and Kuskokwim Rivers are essential to the cultural, nutritional and economic well-being and way of life of the tribal villages and peoples who live along these river drainages, and
- WHEREAS** Food security is a basic human right recognized by the United Nations and affirmed by the United States in the UN Declaration of Rights of Indigenous Peoples, and
- WHEREAS** The Chinook stocks in the Yukon and Kuskokwim River drainages, and Chinook stocks throughout the Arctic-Yukon-Kuskokwim region, are in a serious state of decline, resulting in closed commercial fisheries and subsistence fisheries restricted to the point where villages are not attaining the amount needed to satisfy their basic needs and tribal members have been issued citations and had their nets confiscated for fishing for Chinook salmon to feed their families, and
- WHEREAS** The projected Chinook runs for the Yukon and Kuskokwim Rivers next season are projected to demonstrate a more drastic decline, and recent information demonstrates that this trend has existed over the last decade or more, and
- WHEREAS** Representatives of the State of Alaska joined other members of the North Pacific Fishery Management Council (NPFMC) in voting to allow as many as 60,000 Chinook salmon to be wasted as by-catch in the Bering Sea Pollock trawl fishery each year, and a large percentage of these Chinook have been scientifically shown to be headed to the Yukon and Kuskokwim Rivers; and
- WHEREAS** The State and NPFMC decided to allow this large by-catch despite knowing that the Chinook stocks on the Yukon and Kuskokwim Rivers are in trouble, that the

tribal people who depend upon these salmon for cultural, nutritional and economic survival are suffering, and that international agreements with Canada regarding Yukon Chinook cannot be satisfied (at least without extreme sacrifices by Villages throughout the U.S portion of the Yukon; and

WHEREAS The State of Alaska is quick to sue the Federal agencies anytime it thinks that a resource classification, for example a listing as endangered or threatened under the Endangered Species Act, will impact any potential development or any desire of industry, and the State has either filed litigation or threatened to do so for the related to ESA listings for Polar Bears and several other marine mammal species; and

WHEREAS The State of Alaska has also filed numerous lawsuits against the Federal agencies related to these agencies' efforts to protect the Alaska Native subsistence way of life and the tribes' customary and traditional hunting and fishing practices and needs, despite the State's failure to keep its promise for a rural subsistence priority or a constitutional amendment allowing for a meaningful State subsistence priority.


NOW THEREFORE BE IT RESOLVED that the Association of Village Council Presidents Executive Board calls on the State of Alaska Governor and Attorney General to file a lawsuit challenging the NPFMC's decision to allow 60,000 Chinook salmon to be wasted as by-catch annually in the Bering Sea Pollock fishery, to seek relief through this lawsuit that would instead minimize and within a reasonable time work to eliminate Chinook by-catch, and to work with AVCP in this litigation, and

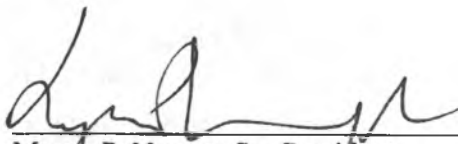
BE IT FURTHER RESOLVED that as an alternative to litigation, the State of Alaska representatives to the NPFMC introduce a formal process to, without delay, reconsider its decision on Chinook by-catch, and that the State work in this reconsiderations to significantly reduce allow Chinook by-catch below 60,000 and eventually eliminate this by-catch, and

BE IT FURTHER RESOLVED that the State of Alaska work with AVCP to establish a through federal legislation a significant per fish fine for by-catch of Chinook salmon in the Pollock fishery and dedicate funds derived from these fines to research designed to identify Chinook stocks taken as by-catch, ways to eliminate by-catch, and science into the causes of the decline in Chinook stocks through the AYK region, and to establish a tribal voting seat on the NPFMC.

ADOPTED by the Association of Village Council Presidents during an Executive Board Meeting held at Bethel, Alaska, this 5th day of March 2013 with a duly constituted quorum.

CERTIFIED:


Raymond J. Watson, Chairman


Myron P. Naneng Sr., President



November 27, 2012

Eric Olson, Chair
North Pacific Fishery Management Council
605 W. Fourth Ave.
Anchorage, AK 99501

Re: Agenda Item C-2 (c) Chinook Salmon PSC in the GOA Non -Pollock Trawl Fisheries

Submitted via email to npfmc.comments@noaa.gov

Dear Chairman Olson and Council members:

The Alaska Marine Conservation Council is dedicated to protecting the long-term health of Alaska's oceans and sustaining the working waterfronts of our coastal communities. Our members include fishermen, subsistence harvesters, marine scientists, small business owners and families. Our ways of life, livelihoods and local economies depend on sustainable fishing practices and productive oceans. The Gulf of Alaska (GOA) provides a plethora of commercial, sport and subsistence fisheries which are revered world wide.

Significant and unrestricted Chinook salmon bycatch has been occurring in the GOA for decades. The Council recently took action to put a long overdue limit on Chinook salmon bycatch in the GOA pollock fisheries. It is time to follow suit for the non-pollock trawl fisheries in the GOA. While these fisheries on average contribute a third of the known Chinook salmon bycatch in the GOA, and in some years as much as 70% of the bycatch, they remain at present unrestricted. Given the disastrous state of Chinook salmon runs throughout the GOA it is long past time that the Council meets its obligations under National Standard 9 and reduce bycatch in this fishery. **We urge the Council to act now and select a bycatch limit under Alternative 2 of 5,000 Chinook salmon for the GOA non-pollock trawl fleet as a starting point for bycatch reduction.**

In 2012, the state of salmon stocks around the GOA was quite literally a disaster. All monitored Chinook salmon runs were below average.¹ In Upper Cook Inlet, Chinook salmon runs were so poor that the Secretary of Commerce declared a fisheries disaster. The setnet fishery was almost completely shut down, and the Kenai River was closed to all recreational Chinook salmon fishing. Despite these closures, only four out of twelve escapement goals were met in Upper Cook Inlet in 2012.² **Economic losses in Cook Inlet to commercial fishing alone are estimated at almost \$10 million, with another**

¹ North Pacific Fishery Management Council, Initial Review Draft Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis, Nov. 2012 at 43 [hereinafter EA/RIR/IRFA].

² *Id.*

\$17.7 million in direct and indirect spending lost to sport fisheries and additional losses to subsistence fishers.³ Seven GOA Chinook salmon stocks are currently listed as Stocks of Concern by the Alaska Board of Fisheries.⁴ Beyond the Gulf of Alaska, at least three Endangered Species Act-listed Chinook salmon are caught in the Gulf of Alaska trawl fisheries.

While the analysis is not able to provide direct estimates of the number of any particular salmon stock which would be “saved” under any of the alternatives, it is clear that any reduction in bycatch would be beneficial to the impacted Chinook salmon stocks. In this particular case, the magnitude of the bycatch is important – fisheries around Cook Inlet were closed down completely because of the possibility that they may catch a few hundred Chinook salmon. The GOA trawl fisheries, on the otherhand, are allowed to catch thousands. Placing a limit on non-pollock trawl fisheries now is critical both as a matter of conservation and equity in these times of Chinook salmon shortages.

A bycatch limit of 5,000 Chinook salmon is barely below the 2003 to 2011 average bycatch for the GOA non-pollock fisheries of 6,001 Chinook salmon.⁵ The Council’s mandate under National Standard 9 is to minimize bycatch, not to maintain it at historic levels. The GOA non-pollock trawl fisheries have been operating without any requirement to minimize bycatch, and under the status quo there is no economic incentive to do so. A potentially constraining limit will provide the incentives necessary to prompt the development of methods to avoid Chinook salmon. The analysis highlights this effect:

Under a PSC limit, and especially if the attainment of the threshold appears to be imminent, the non-pollock trawl fleet may be active in making efforts to avoid high PSC rates, in order to preserve the opportunity to fully harvest the groundfish TAC’s..... the adoption of a Chinook PSC limit likely will prompt efforts to gain better information concerning Chinook avoidance, improving the ability of participants to avoid Chinook in the long run.⁶

We understand that the Council has begun the process of developing a catch share program for the GOA, and this may provide additional bycatch reduction “tools.” However, past experience designing and implementing catch share programs tells us this process will be lengthy and complex, and is unlikely to provide anything resembling a quick fix to bycatch issues. Our Chinook salmon populations in the Gulf are in crisis now, and we cannot wait three years to begin to put limitations on bycatch. Additional bycatch reduction can appropriately be addressed through a catch share program, but it is imperative that the Council takes a first step now to put an upper bound on the allowable bycatch in the Gulf of Alaska non-pollock trawl fisheries.

³ Susan Bell, Commissioner Alaska Department of Commerce, Community, and Economic Development, Letter to Senator Murkowski, Senator Begich, and Congressman Young, Nov. 8, 2012. *Available at* <http://www.scribd.com/doc/113181249/Susan-Bell-letter-to-congressional-delegation-on-salmon-disaster>.

⁴ EA/RIR/IRFA, *supra note 1* at 36.

⁵ *Id.* at 109.

⁶ *Id.* at ES-4.

The Draft EA/RIR/IRFA raises some compelling and disturbing concerns related to monitoring and enforcement.⁷ According to this analysis, deck sorting is common practice in this fishery and on unobserved boats “there is a high likelihood that salmon PSC has been sorted from the catch prior to delivery.”⁸ Furthermore, under a PSC limit, this action is “highly susceptible to introduction of intentional bias into salmon PSC estimation,” meaning that under a PSC limit it is highly likely that fishermen would discard Chinook salmon at sea rather than have them be counted, and potentially trigger a cap. This supposition raises substantial concerns about current bycatch estimation, discussed further below. In the context of this action, however, the Council should not allow concerns over the current observer coverage to obfuscate the need or ability to take action now. The Council’s obligation is to identify and recommend necessary management measures. Monitoring and enforcement needs, including observer coverage can then be adapted to meet the needs of the management regime. In this case, a lack of observer coverage is no reason to delay action, but rather identifies a need to design monitoring programs which will meet the management requirements of our fisheries. In the Bering Sea pollock fishery, observer coverage for all catcher vessels was increased to 100% to meet these concerns with the implementation of Amendment 91. If similar concerns exist in the Gulf of Alaska, the solution would seem to be the same.

The concerns raised in the management enforcement considerations⁹ also create substantial doubt as to the actual degree of impact the status quo fisheries have on salmon. If the monitoring concerns are accurate, then the numbers presented throughout this document as the salmon bycatch numbers are likely inaccurate. In fact, if a great deal of at-sea discards are occurring in the fishery, the actual impact on Chinook salmon is likely greatly understated throughout the draft analysis. Similarly, these monitoring concerns call into question the information on which the Biological Opinion for ESA-listed Chinook salmon caught in these fisheries is based. If in fact a high degree of catch is discarded at sea, estimates of the incidental take of ESA-listed stocks are likely biased low as well.

While estimates of Chinook salmon impacts are likely *underestimated* throughout the analysis due to the monitoring concerns addressed above, economic impacts to the non-pollock trawl fisheries are likely *overestimated* throughout the document. The analysis of foregone revenue assumes no change in fishing behavior: “...regulatory impacts must be viewed with the caveat that fishers did not alter their behavior to avoid Chinook salmon and forestall PSC-related fishery closures.”¹⁰ In addition, and perhaps more importantly, the analysis of foregone pollock, because it looks retrospectively, simply assigns the foregone pollock and revenue from the projected season closure date on. In reality, with a PSC limit in place harvesters will likely alter their fishing behavior to shift away from target fisheries with high levels of PSC to ensure that higher value, lower PSC fisheries can occur. While these mitigating circumstances are discussed qualitatively in the

⁷ See EA/RIR/IRFA, *supra* note 1 at 176-187.

⁸ *Id.* at 178.

⁹ *Id.* at 176.

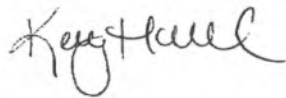
¹⁰ *Id.* at 154.

analysis, the quantitative tables of impacts do not reflect these probable adaptations and are therefore likely much higher than actual impacts.

In closing, Chinook salmon are a vital and essential component of our communities, our cultures and our economies in the Gulf of Alaska. For reasons of conservation and equity it is critical that bycatch of this critical species is reduced in a meaningful way. **We urge the Council to act now and select a bycatch limit under Alternative 2 of 5,000 Chinook salmon for the GOA non-pollock trawl fleet as a starting point for bycatch reduction.**

Thank you for your continued attention to this important issue.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kelly Harrell".

Kelly Harrell
Executive Director
Alaska Marine Conservation Council

Introduced by: Haggerty, Johnson, Mayor
Date: 02/05/13
Action: Adopted
Vote: 8 Yes, 0 No, 1 Absent

**KENAI PENINSULA BOROUGH
RESOLUTION 2013-013**

**A RESOLUTION URGING THE NORTH PACIFIC FISHERY MANAGEMENT
COUNCIL TO ADOPT MEASURES THAT REDUCE THE CHINOOK SALMON
BYCATCH IN THE GULF OF ALASKA AND BERING SEA TRAWL FISHERIES**

- WHEREAS,** Chinook salmon is the official fish of Alaska and a cultural icon for both native and nonnative Alaskans; and
- WHEREAS,** Chinook salmon is a significant source of food in both the subsistence and recreational fisheries and a key component of the State's commercial and charter fisheries; and
- WHEREAS,** on September 12, 2012, the U.S. Secretary of Commerce determined that a commercial fishery failure due to a fishery resource disaster exists for three regions of the Alaska Chinook salmon fishery, including Cook Inlet; and
- WHEREAS,** economic losses to the State of Alaska for commercial and recreational fisheries alone was over \$34 million, which does not include the significant impacts to subsistence users; and
- WHEREAS,** closures in the 2012 Cook Inlet setnet fishery caused by low Chinook salmon returns resulted in a sockeye harvest with an ex-vessel value that was about 10 percent of the recent five-year average; and
- WHEREAS,** the sport fish harvest of late-run Kenai River Chinook was 103 fish, which was 99 percent below the recent five-year average; and
- WHEREAS,** these same Chinook salmon are caught and discarded in the Pollock fisheries in the Bering Sea and the Gulf of Alaska and other trawl fisheries in the Gulf of Alaska; and
- WHEREAS,** bycatch by the trawl fleets can be regulated to protect the mortality of this extremely valuable resource; and
- WHEREAS,** the Chinook bycatch cap in the Gulf of Alaska pollock fishery is set at 25,000 Chinook salmon, which exceeds the ten-year average bycatch in the fishery; and
- WHEREAS,** the non-pollock Gulf of Alaska trawl fisheries currently operate under no bycatch limit; and

WHEREAS, the North Pacific Fishery Management Council is considering a cap on the non-pollock fisheries in the Gulf of Alaska and is initiating a catch share program for Central Gulf of Alaska trawl fisheries which should reduce bycatch further;

NOW, THEREFORE BE IT RESOLVED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH:

SECTION 1. That the KPB Assembly urges the North Pacific Fishery Management Council (NPFMC) to adopt and implement management measures that reduce the Chinook salmon bycatch in the Gulf of Alaska (GOA) trawl fisheries by setting new limits.

SECTION 2. That the KPB Assembly urges NPFMC to lower the existing Chinook bycatch limits in the GOA and Bering Sea pollock fisheries to at least half the current limits.

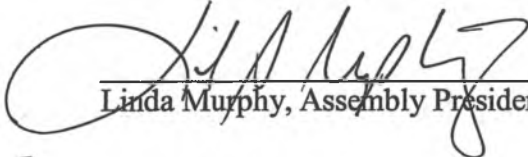
SECTION 3. That the KPB Assembly urges the NPFMC to further reduce Chinook bycatch in any catch share program.

SECTION 4. That the KPB Assembly urges NPFMC to require 100 percent observer coverage in all trawl fisheries in the GOA to provide accurate estimates of bycatch.

SECTION 5. That a copy of this resolution shall be provided to Governor Parnell and all legislators representing the Kenai Peninsula Borough and all members of the North Pacific Fisheries Management Council.

SECTION 6. That this resolution takes effect immediately upon its adoption.

ADOPTED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH THIS 5TH DAY OF FEBRUARY, 2013.


Linda Murphy, Assembly President

ATTEST:


Johni Blankenship, MMC, Borough Clerk



Yes: Haggerty, Johnson, McClure, Pierce, Smith, Tauriainen, Wolf, Murphy
No: None
Absent: Smalley

C-2(c) GOA Chinook Salmon Bycatch in the Non-Pollock Trawl Fisheries

Council motion

December 9, 2012

The Council forwards the analysis for public review with changes to the alternatives and options described below. The Council requests staff revise the analysis to address SSC minutes and requests in the AP motion to NMFS and Council staff. Additions to the original motion are underlined.

Problem statement:

Magnuson-Stevens Act National Standards require balancing achieving optimum yield with minimizing bycatch, while minimizing adverse impacts on fishing dependent communities. Chinook salmon prohibited species catch (PSC) taken incidentally in GOA trawl fisheries is a concern, and incidental take is limited in the Biological Opinion for ESA-listed Chinook salmon stocks. The Council recently adopted a PSC limit of 25,000 Chinook salmon for the Western and Central GOA pollock trawl fisheries, while also indicating an intent to evaluate Chinook salmon bycatch in the non-pollock GOA trawl fisheries, which currently do not have a Chinook salmon bycatch control measure.

The following alternatives apply to non-pollock trawl fisheries in the Central and Western GOA.

Alternative 1: Status quo.

Alternative 2: 5,000, 7,500, 10,000, or 12,500 Chinook salmon PSC limit (hard cap).

Option 1: Apportion limit between Central and Western GOA.

Option 2: Apportion limit by directed fishery operational type (CV vs. CP).

Applies to both options 1 and 2. ⁷⁻⁴ Apportion proportional to historic average bycatch of Chinook salmon (5- or 10-year average). ^{5-10 yr. range} b) historic groundfish harvest

Option 3: No more than 50% or 66% of the annual hard cap limit can be taken before June 1.

Option 4: Separate Chinook salmon PSC limit (hard cap) to the CGOA rockfish program:

a) 1,500

b) 2,500

c) 3,500

Suboption 1: Divide by sector (CV and CP) based on actual Chinook salmon PSC usage by sector for the rockfish catch share program years of 2007 – 2012.

Each LLP holder within sector will receive an allocation of Chinook salmon PSC equivalent to the license's proportion of the sector's target rockfish catch history from the program's initial allocations. Member LLP allocations will be allocated to their respective cooperative.

Suboption 2: On October 1st, rollover all but 200, 300, or 400 remaining Chinook salmon to support other fall non-pollock trawl fisheries.

Suboptions 1 and/or 2 can be selected for Option 4.

Alternative 3: Full retention of salmon.

Vessels will retain all salmon bycatch until the number of salmon has been determined by the vessel or plant observer and the observer's collection of any scientific data or biological samples from the salmon has been completed.

Note, both Alternative 2 and Alternative 3 could be selected by the Council in their preferred alternative. Likewise, under Alternative 2, both Option 1 and Option 2, or Option 2 and Option 3, could be selected by the Council; Option 4 can be selected with any of the other options.



YUKON RIVER DRAINAGE FISHERIES ASSOCIATION

725 Christensen Drive, Suite 3-B, Anchorage, Alaska 99501
Tel: 907-272-3141 Fax: 907-272-3142

**Resolution: 2013-02
Salmon Bycatch**

WHEREAS the Yukon River Drainage Fisheries Association (YRDFA) works on behalf of subsistence and commercial fishing families within the Alaskan and Canadian Yukon River drainage who depend on wild salmon for subsistence and commercial fisheries; and

WHEREAS Chinook and chum salmon provide an essential source of food, income and culture for the people of the Yukon River, with chum salmon increasingly important for commercial fisheries and subsistence as Chinook salmon decline; and

WHEREAS subsistence harvests of Chinook salmon have been severely restricted in recent years, and no directed commercial harvests of Chinook salmon have taken place on the Yukon River; and

WHEREAS despite these restrictions the Chinook salmon Canadian escapement goal has only been met in 2 out of the last 5 years and mean run size of Canadian-origin Chinook salmon (which comprise approximately 50% of the run) declined 45% for the period 1998-2010 compared to 1982-1997; and

WHEREAS the Board of Fish has recently taken action to restrict subsistence fishing on the first pulse of Chinook salmon as a conservation measure; and

WHEREAS the Bering Sea pollock fishery catches these same salmon as bycatch; catching over 122,000 wild Chinook salmon in 2007 and over 700,000 chum salmon in 2005; and

WHEREAS according to the best available scientific information half to 70% of the Chinook salmon taken as bycatch are of Western Alaska origin, and of this 40% are from the Yukon River; and

WHEREAS the management measures adopted in April 2009 by the North Pacific Fishery Management Council (the Council) provide for a 47,591 bycatch level in most years, with the potential for the fleet to reach 60,000 in two out of every seven years without consequence; and

WHEREAS although bycatch has remained well below the cap in recent years, the current management regime allows the potential for the pollock fleet to catch as many as 60,000 Chinook salmon as bycatch; and

WHEREAS Chinook salmon bycatch in the pollock fishery is consistently high from October 1 on, and in 2011 over half of the annual bycatch was taken in October and November; and

WHEREAS in these times of severe Chinook salmon declines, all sources of mortality must be reduced and all harvesters of salmon must bear equitably in conserving Chinook salmon; and

WHEREAS there is currently no limit on chum salmon in the Bering Sea pollock fishery in place;

THEREFORE BE IT RESOLVED that YRDFA requests that the North Pacific Fishery Management Council take action immediately to reduce the overall bycatch cap to 30,000 and change the pollock fishing season closing date to Sept. 30 to avoid the consistently high bycatch in October.

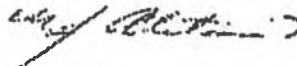
BE IT FURTHER RESOLVED that YRDFA requests that the North Pacific Fishery Management Council also take action to adopt chum salmon bycatch management measures which will adequately protect Western Alaska chum salmon runs.

COPIES of this resolution will be sent to the North Pacific Fishery Management Council, National Marine Fisheries Service, Alaska Department of Fish and Game Commissioner, Yukon River Panel, U.S. Fish and Wildlife Service, U.S. Department of State, Bering Sea Fishermen's Association, Association of Village Council Presidents, Tanana Chiefs Conference and other Western Alaska salmon groups.

APPROVED unanimously this 14th day of February 2013 by the Board members and delegates of YRDFA assembled at their Twenty-third Annual Meeting held in St. Mary's, Alaska.

Attest: 

Richard Burnham, YRDFA Co-Chair



William Alstrom, YRDFA Co-Chair

TANANA CHIEFS CONFERENCE

Executive Board of Directors

Resolution No. 2013 - xx 03

- TITLE:** **Calling for the State of Alaska to Institute Legal Challenges and Take Other Actions to Invalidate the North Pacific Fishery Management Council's Actions Allowing 60,000 Chinook Salmon to be Taken as By-Catch in the Bering Sea Pollock Fishery**
- WHEREAS,** The Tanana Chiefs Conference (TCC) is the recognized tribal organization and non-profit Alaska Native regional corporation for 42 member indigenous Native villages within Interior Alaska and support the endeavors of its member villages; and
- WHEREAS,** TCC fully supports its member villages in all aspects of their self-determination, health and well-being; and
- WHEREAS,** Healthy and abundant Chinook Salmon stocks of the Yukon and Kuskokwim Rivers are essential to the cultural, nutritional and economic well-being and way of life of the tribal villages and peoples who live along these river drainages; and
- WHEREAS,** Food security is a basic human right recognized by the United Nations and affirmed by the United States in the UN declaration of Rights of Indigenous Peoples; and
- WHEREAS,** The Chinook stocks in the Yukon and Kuskokwim River drainages, and Chinook stocks throughout the Arctic-Yukon-Kuskokwim region, are in a serious state of decline, resulting in closed commercial fisheries and subsistence fisheries restricted to the point where villages are not attaining the amount needed to satisfy their basic needs and tribal members have been issued citations and had their nets confiscated for fishing for Chinook salmon to feed their families; and
- WHEREAS,** The projected Chinook runs for the Yukon and Kuskokwim Rivers next season are projected to demonstrate a more drastic decline, and recent information demonstrates that this trend has existed over the last decade or more; and
- WHEREAS,** Representatives of the State of Alaska joined other members of the North Pacific Fishery Management Council (NPFMC) in voting to allow as many as 60,000 Chinook salmon to be wasted as by-catch in the Bering Sea Pollock trawl fishery each year, and a large percentage of these Chinook have been scientifically shown to be headed to the Yukon and Kuskokwim Rivers; and
- WHEREAS,** The State and NPFMC decided to allow this large by-catch despite knowing that the Chinook stocks on the Yukon and Kuskokwim Rivers are in trouble, that the tribal people who depend upon these salmon for cultural and economic survival are suffering, and that international agreements with Canada regarding Yukon Chinook cannot be satisfied

(at least without extreme sacrifices by Villages throughout the U.S. portion of the Yukon; and

WHEREAS,

The State of Alaska is quick to sue the Federal agencies anytime it thinks that a resource3 classification, for example a listing as endangered or threatened under the Endangered Species Act, will impact any potential development or any desire of industry, and the State has either filed litigation or threatened to do so for the related to ESA listings for Polar Bears and several other marine mammal species; and

WHEREAS,

The State of Alaska has also filed numerous lawsuits against the Federal Agencies related to these agencies' efforts to protect the Alaska Native subsistence way of life and the tribes' customary and traditional hunting and fishing practices and needs, despite the State's failure to keep its promise for a rural subsistence priority or a constitutional amendment allowing for a meaningful State subsistence priority.

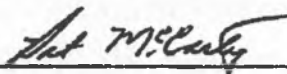
HEREFORE BE IT RESOLVED that Tanana Chiefs Conference Executive Board calls on the State of Alaska Governor and Attorney General to file a lawsuit challenging the NPFMC's decision to allow 60,000 Chinook salmon to be wasted as by-catch annually in the Bering Sea Pollock fishery, to seek relief through this lawsuit that would instead minimize and within a reasonable time work to eliminate Chinook by-catch, and to work with TCC in this litigation; and

BE IT FURTHER RESOLVED that as an alternative to litigation, the State of Alaska representatives to the NPFMC introduce a formal process to, without delay, reconsider its decision on Chinook by-catch, and that the State work in this reconsideration to significantly reduce allow Chinook by-catch below 60,000 and eventually eliminate this by-catch; and

BE IT FURTHER RESOLVED that the State of Alaska work with TCC to establish a through federal legislation a significant per fish fine for by-catch of Chinook salmon in the Pollock fishery and dedicate funds derived from these fines to research designed to identify Chinook stocks taken as by-catch, ways to eliminate by-catch, and science into the causes of the decline in Chinook stocks through the AYK regions, and to establish a tribal voting seat on the NPFMC.

CERTIFICATION

I hereby certify that this resolution was duly passed by the Tanana Chiefs Conference Board of Directors on March 9, 2013 at Fairbanks, AK and a quorum was duly established.



Pat McCarty,
Secretary/Treasurer



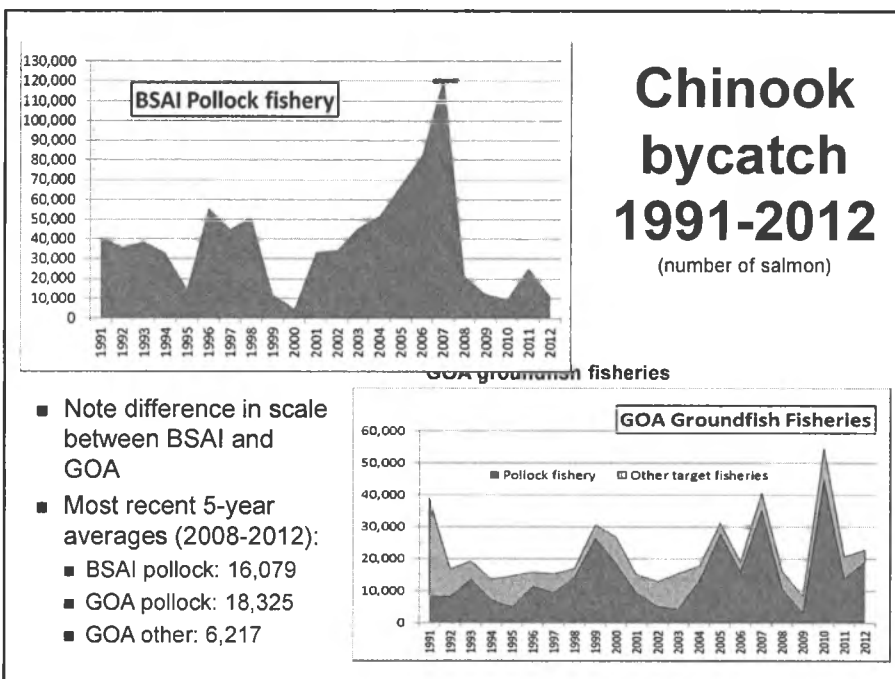
North Pacific Fishery Management Council

- manages offshore Federal fisheries off Alaska (3-200 miles) with NMFS
- Management governed by the Magnuson-Stevens Act (U.S. Federal law). Balance of 10 National Standards, including:
 - Minimize (salmon) bycatch to extent practicable
 - Prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery (e.g., the Alaska groundfish fisheries)
 - Provide for the sustained participation of and minimize adverse impacts on fishing communities

Salmon bycatch in the Alaska groundfish fisheries

NOTE: Council does not regulate any salmon fisheries (State of Alaska), only salmon bycatch occurring in offshore groundfish fisheries

- Trawl fisheries catch Chinook salmon as bycatch
 - In the Bering Sea, bycatch is in the pollock fishery
 - In the GOA, it is mostly in the pollock fishery (~75%) but also in flatfish, Pacific cod, and rockfish fisheries
- By law, bycatch is counted, but cannot be retained or sold



What action has the Council taken? Bycatch limits that close the fishery

- Bering Sea pollock fishery
 - 60,000 Chinook salmon bycatch limit, with incentive plans to remain below 47,951 salmon (*implemented 2011*)
 - Apportioned by sector (catcher vessel, catcher processor, mothership, CDQ) and inshore cooperative
 - ■ If sector exceeds its apportionment of 47,591 Chinook salmon 3 times in 7 year period, sector's limit will permanently reduce to lower cap
 - ■ Council receives annual report on incentive programs

What action has the Council taken? Bycatch limits that close the fishery

- ■ GOA pollock fishery
 - 25,000 Chinook salmon bycatch limit (*implemented mid-2012*)
 - Apportioned between the central and western regulatory area pollock fisheries
- GOA non-pollock fisheries
 - Limits currently under review range from 5,000-12,500 Chinook salmon
 - Council final action scheduled for June

What action has the Council taken? Stock of origin research

- Purpose:
 - to understand relationship between Chinook salmon bycatch in the groundfish fisheries and the status of individual Chinook stocks

What action has the Council taken? Stock of origin research

- Bering Sea
 - Basis of Council action in 2009 (PSC limit)
 - bycatch and genetics information from 2005-2007
 - AEQ model provided information on proportional stock of origin of bycatch, broken out to regional and western Alaska river systems
 - Coastal western Alaska is largest component of bycatch
 - Since 2011: systematic sampling procedure for Chinook
 - including full census and increased observer coverage (min. 100%)
 - genetic breakdown of samples presented each April
 - April 2013 is first time will receive complete annual report based on full census and systematic sampling protocol (for 2011)
 - Best information on impact rate to western Alaska
 - bycatch was between 0.7% - 2.4% of combined run sizes in 2011
 - See *Stram and Ianelli paper from AYKSSI, December 2012*

What action has the Council taken? Stock of origin research

- GOA
 - Very limited information to date
 - Insufficient samples for stock composition analysis
 - Indication of presence of stocks from limited samples (primarily from pollock fishery) and coded wire tags
 - Systematic sampling procedure now underway in pollock fishery (result of Council action)
 - Census from observed and unobserved pollock deliveries, but lower observer coverage than Bering Sea
 - Genetic breakdown of available samples each April ?
 - awaiting 2011 results; 2010: stocks present predominantly Pacific Northwest, British Columbia, and coastal southeastern AK
 - Full retention under review in non-pollock fisheries
 - Census sampling will likely not be possible, but other sampling methodology may be used.

What action has the Council taken?

- Extensive outreach to coastal and interior communities
 - Purpose: solicit input on salmon bycatch actions prior to Council action, promote 2-way dialogue
 - Community meetings, participation at subsistence regional advisory council meetings, regional large forums (e.g., AVCP, YRDFA, YRP), statewide teleconferences
- Food bank donations
 - Council amended requirements in 1996 to allow donation of bycaught salmon to food banks
 - Voluntary industry program; heightened participation in recent years, in Bering Sea and GOA
 - Donations of salmon and halibut in 2012:
 - BSAI: 73,000 lbs; ~85% salmon
 - GOA: 30,000 lbs; ~15% salmon

What action is the Council taking? Chinook salmon bycatch reduction in other management actions

- Bering Sea chum salmon bycatch reduction
 - Measures to reduce chum salmon bycatch in pollock fishery need to be tempered by concurrent objective to not increase Chinook salmon bycatch
 - To date, measures under consideration have been shown to exacerbate Chinook bycatch reduction. Council is developing more adaptive approaches.
- Development of bycatch management tools for GOA underway
 - Council considering cooperative management and bycatch avoidance incentives for trawl fisheries
 - Necessary in context of Chinook salmon PSC limits as well as recent halibut and crab protections

Summary

- Chinook salmon bycatch reduction is continuing priority for Council
- Management achieved through hard cap limits as well as incentive programs
- Regular reporting of Chinook salmon bycatch levels allows the Council to react to potential problems



Catches (in thousands) of Chinook salmon in commercial, subsistence, and recreational fisheries; and bycatch taken in federally-managed groundfish fisheries in the Gulf of Alaska west of Yakutat, 1996-

Year	Commercial	Subsistence	Recreational	Total	Bycatch
1996	104	7	91	203	16
1997	103	10	101	214	15
1998	110	11	76	197	17
1999	110	12	103	226	31
2000	63	11	105	179	27
2001	80	10	95	185	15
2002	84	10	77	171	13
2003	98	9	96	203	15
2004	118	11	99	228	18
2005	96	7	105	208	31
2006	86	8	102	197	19
2007	91	10	94	194	41
2008	49	8	72	129	16
2009	38	5	54	97	8
2010	55	6	53	114	55
2011	63	7	51	122	21

Dec 13, 2012 - 02:43 PM AKST

Bycatch reductions for chinooks, chums keep moving

MOLLY DISCHNER, ALASKA JOURNAL OF COMMERCE

Chinook and chum could receive a little extra protection in federal waters when work continues on salmon bycatch efforts.

The North Pacific Fishery Management Council agreed Dec. 9 that it is time for public review of a chinook measure for the non-pollock trawl fisheries in the Gulf of Alaska. That came after the council asked the Bering Sea pollock fleet to look at ways it could reduce its catch of western Alaska chum salmon. Any action for the Bering Sea is likely farther down the road.

The council passed a cap of 25,000 chinooks for the Gulf of Alaska pollock fleet that took effect in 2012. The pollock fleet uses pelagic, or midwater, gear. The new measure for the Gulf will affect non-pelagic, or bottom trawl, gear for the flatfish and cod fleets.

Council member Cora Campbell, the Alaska Department of Fish and Game commissioner, motioned to move ahead with public review of the potential chinook protections, with some options added to the alternatives staff had already presented.

Campbell's motion included additions to the analysis that the Advisory Panel, or AP, and Scientific and Statistical Committee, or SSC, had recommended. The SSC had also recommended releasing it for public review once the additions were made. The AP, however, had recommended not yet releasing the measure for public review.

The alternatives now up for analysis include hard caps with a variety of options. Those include apportioning a cap between the western and central Gulf of Alaska fisheries, apportion the limit by type of vessel, allowing only part of the limit to be taken early in the season and having a separate limit for the rockfish program. Several suboptions will also be considered, including apportioning the limit based on either historic chinook catch or historic total catch, and various specifications for a limit in the rockfish program.

Campbell said she realized that hard caps are far from an ideal way to control prohibited species catch, but that those tools are farther down the road, and it isn't responsible to have fisheries with unlimited potential for chinook mortality.

“We have stocks of salmon that are highly valued by fishing communities, we have fisheries that have a potential for unlimited mortality on stocks at a time when there's great uncertainty about the ability of those stocks to support high levels of mortality, and we have a requirement under the natural standards to minimize bycatch to the extent practicable and also to minimize the adverse affects in our action on fishing communities,” Campbell said.

Council member Duncan Fields offered the amendment, which the council approved, to add the suboption to look at apportioning based on historical harvest in addition to looking at apportioning based on historic prohibited species catch.

During discussion, council member John Henderschedt questioned the method of dividing a prohibited species cap amongst sectors, rather than calculating everyone's needs and adding them together.

“Trying to use division to do this is just, is not the best way to be doing this,” Henderschedt said.

Council chair Eric Olson disagreed.

“Well, if there was enough fish to provide for the sum of all the needs there would be no problem here,” Olson said. “The problem is we don't have enough fish. And so now we have to find a way to use division to get there.”

Glenn Merrill, sitting in for National Marine Fisheries Service Alaska Region Administrator Jim Balsiger, said the agency is always supportive of reducing bycatch, but would need to find ways to address enforcement and management issues before they can support final action on the alternatives.

The council is also working on a way to provide more bycatch tools in the Gulf through rationalization, or allocating fishing privileges to eliminate the race for fish, but such a package is far from being ready for action.

The council heard significant public testimony on the action, including those who wanted the smallest cap the council is considering, and those who don't think the plan is ready to move forward.

John Gauvin said he thought divvying up the prohibited species cap could make compliance more difficult, but that those participating in the fishery want to limit their take of those fish.

“I think the fleets do want to do better,” Gauvin said.

Julie Bonney from the Alaska Groundfish Data Bank said that organization did not support moving forward immediately, and wanted to see the trawl fleet gain tools to comply with bycatch before moving on with caps. She also said stock identification information was needed to better understand what is being caught and the impact the fleet has on the fishery. Those things would help them support an effort, she said.

“This isn’t the action to get us there,” she said.

Homer fishermen Pete Wedin said that while there are many unknowns about what’s happening to salmon, wasting chinook is definitely an issue.

“Many small boat fishermen throw up their hands and say that the corporations that exploit these large fisheries are too big to fight, too big to fail. In the case of chinook salmon in the Gulf of Alaska, these iconic fish are in short supply.”

For Bering Sea chum bycatch reduction, the council opted to ask industry for a plan outlining how they could work within the existing chinook incentive plan agreements, or IPA, rather than continue work on the current options. IPAs took effect in 2011 for the Bering Sea pollock fisheries and allow a larger share of the chinook salmon cap in exchange for vessels taking additional steps to minimize bycatch.

The council discussed the difficulties of balancing chinook and chum protections for western Alaska extensively, and also heard from staff that the alternatives they had in front of them might not make a sizable difference in chum escapement.

Quantifying the impact of chum bycatch on area fisheries is difficult, in part, because genetic identification work so far hasn’t been able to separate out various river systems within western Alaska.

Molly Dischner can be reached at molly.dischner@alaskajournal.com.

This article appears in the December Issue 3 2012 issue of Alaska Journal of Commerce

Read more: <http://www.alaskajournal.com/Alaska-Journal-of-Commerce/December-Issue-3-2012/Bycatch-reductions-for-chinooks-chums-keep-moving/#ixzz2KjptwRhR>



NOAA Technical Memorandum NMFS-AFSC-244

Genetic Stock Composition Analysis of Chinook Salmon Bycatch Samples from the 2011 Bering Sea and Gulf of Alaska Trawl Fisheries

by
C. M. Guthrie III, H. T. Nguyen, and J. R. Guyon

DRAFT

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Alaska Fisheries Science Center

March 2013

DRAFT - DO NOT CITE - DRAFT

were more similar, larger amounts of more southern stocks (Coastal Southeast Alaska, British Columbia, and west coast US) were estimated in 2011 than 2008 and 2010.

Likewise, the 2007, 2008, and 2011 “B” season stock composition estimates were similar with large amounts from Coastal Western Alaska (Fig 8.) In contrast with the 2010 “B” season estimate, the 2011 “B” season estimate identified smaller contributions from British Columbia, West Coast U.S. and Coastal Southeast Alaska stocks. Unlike previous years studied, most of the Chinook salmon bycatch occurred during the “B” season such that the sample set was relatively large this year. In addition, 2011 was the first year systematic random sampling was employed where genetic samples were collected from one of every 10 Chinook salmon encountered. The combined size of the sample set and the proportional sampling methods employed help make the 2011 “B” season estimates representative of the total catch.

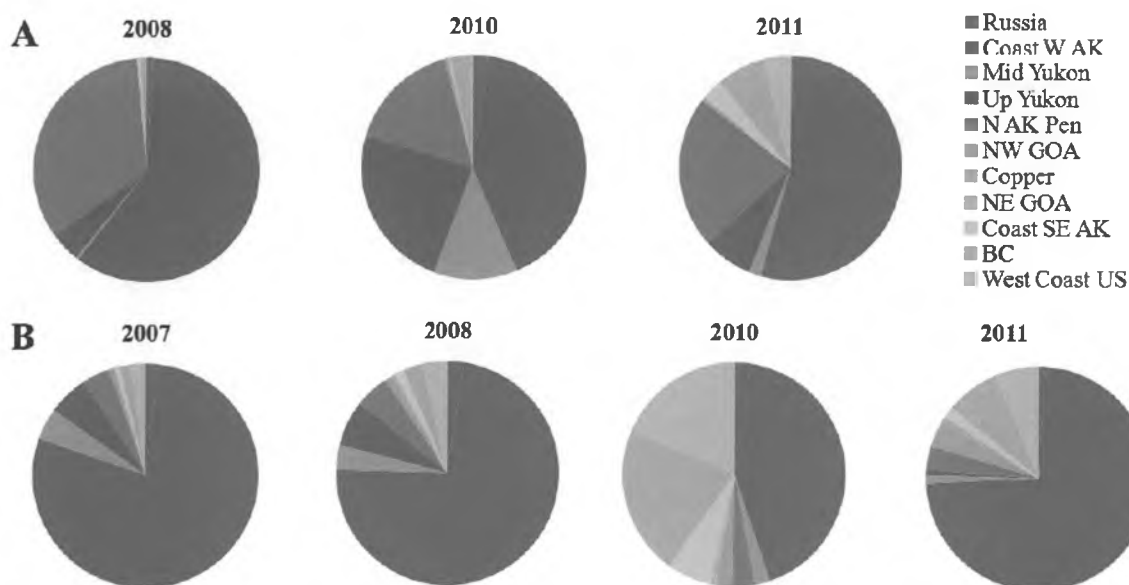


Figure 8.— Comparison of “A” season genetic stock composition estimates for 2008, 2010 and 2011 based on available genetic samples from the BSAI Chinook salmon bycatch. Comparison of “B” season genetic stock composition estimates for 2007, 2008, 2010, and 2011 stock composition estimates based on available genetic samples from the BSAI “B” season Chinook salmon bycatch. The same genetic baseline and regional groupings were used in all analyses.

While changes in sampling protocols between years necessitate caution in comparing annual analyses across years, when the stock compositions were analyzed for the entire year, Coastal Western Alaska and North Alaska Peninsula stock compositions trended downward between 2008 and 2010 but increased in 2011 (Fig. 10). The Yukon River contribution dropped to its lowest levels in 2011, while British Columbia and West Coast U.S. stock compositions continued to trend upward (Fig. 9).

For the GOA, the opportunistic sampling protocols employed between 2010 and 2011 limit the results to indentifying only presence of individual stocks. In addition, available sample numbers were very low, with 161 samples from 2010 (0.4% sampling rate) and 240 samples in

BSAI Chinook Bycatch by Year

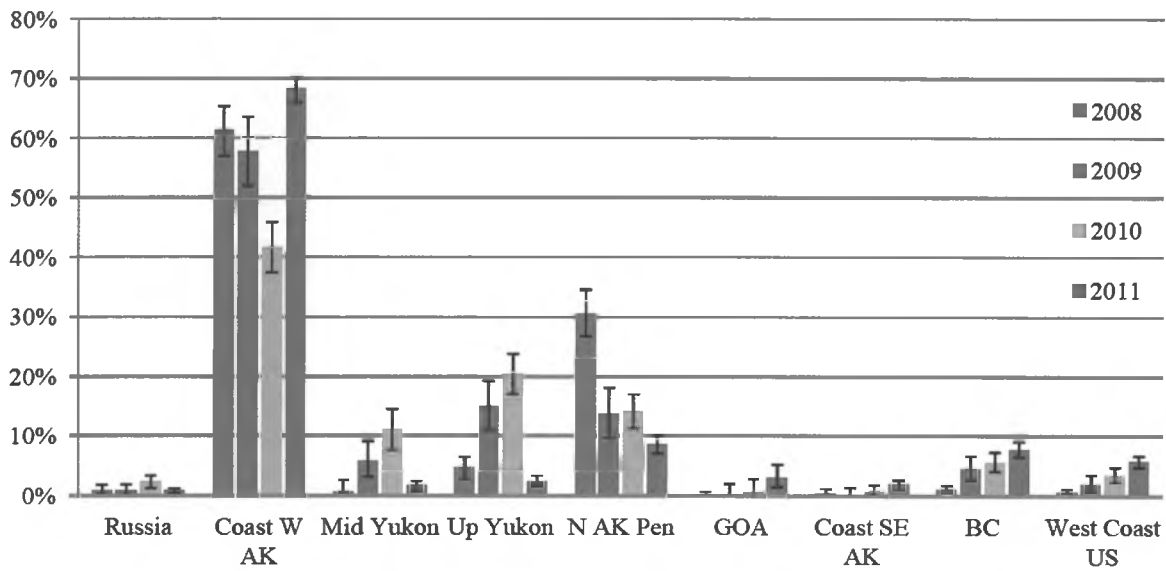


Figure 9. -- Comparison of yearly stock composition estimates (2008-2011) based on genetic samples from the Bering Sea Chinook salmon bycatch. The same genetic baseline and general regional groupings were used in all analyses. GOA group consists of combined values for NWGOA, Copper, and NE GOA. BAYES 95% credible intervals are plotted for yearly estimates.

Recent Actions to Reduce Salmon and Halibut Bycatch & Opportunities for Additional Reductions on the Horizon

Bycatch Overview: Moving Toward Cleaner Fisheries

The summer of 2012 has been marked by extremely low Chinook salmon returns in rivers across Alaska. Subsistence, sport, and commercial fisheries have been closed due to low king numbers. This in turn has translated into an unprecedented call for action to reduce bycatch, or the incidental harvest, of Chinook salmon by other fisheries that capture them. There is much uncertainty about the overall impact that bycatch is having on Chinook salmon populations. Many scientists believe that changing ocean conditions are playing a major role in the declines. Still, federal fishery managers are mandated to minimize bycatch under the Magnuson-Stevens Act. AMCC has worked to support clean fisheries since its inception in 1994, and much progress has been made. **Many bycatch limits have been put in place or reduced in the last five years.** But Alaska can and should do more to support the long-term health of fish populations and ensure that directed subsistence, commercial and sport fisheries are not diminished by the capture of their target species in another fishery.

What is Bycatch?

From skates and urchins to halibut and Chinook salmon, marine life that is caught and discarded in pursuit of another commercially targeted species is considered bycatch.

All fisheries and types of gear have some level of bycatch. At one end of the spectrum is jig gear, the most selective, which deploys single hooks off the bottom. At the other end of the spectrum is bottom trawl gear that is the least discriminate and has the highest habitat disturbance as it is dragged along the seafloor.

AMCC promotes reducing bycatch of all species, clean gear and fishing practices that minimize bycatch.

Gulf of Alaska Chinook Salmon Bycatch

Prized Chinook salmon runs from the Copper River to Cook Inlet and Kodiak have been low in recent years, with fishery disasters declared for the Upper Cook Inlet in 2012. At the same time that salmon fishermen were restricted, **bycatch of our prized king salmon soared to over 51,000 Chinook in the Gulf of Alaska in 2010.** This all-time high number reinvigorated a call for a limit on king salmon bycatch in Gulf trawl fisheries.

In June 2011, the North Pacific Fishery Management Council (NPFMC) established the first-ever limit on Chinook salmon bycatch in the Gulf of Alaska pollock fishery at 25,000 kings. This cap went into effect in August 2012. Once the Chinook cap is reached, the pollock fleet has to stop fishing. While that number is higher than the 15,000 initially called for, it's considered an important first step. In addition to the cap is a requirement to retain salmon bycatch, which should provide more accurate counts.

The Council is now in the process of considering a cap for the other trawl fisheries in the Gulf, other than the pollock fishery. On average these other fisheries are responsible for about a third of the Chinook salmon bycatch every year, but in some years they've caught as much 60% or more of the bycatch. **The Gulf non-pollock trawl fisheries are the only fishery left which catches a significant amount of salmon bycatch, yet does not have a limit.** It's critical that we close this loophole and put a cap in place. **At their Dec. 2012 meeting the Council will considered a range of caps from 5,000-12,500 and is tentatively scheduled to take final action in April 2013.**



Federal fishery observer counting bycatch in a trawl net.

Gulf of Alaska Halibut Bycatch

Halibut populations have experienced significant declines in Gulf of Alaska management areas over the past decade. Commercial and charter fishing limits have been reduced by as much as 50% or higher in some management areas - causing hardships for the many people and communities who depend on this resource. At the same time, allowable halibut bycatch remained at the same level since 1989. **In June 2012, the NPFMC voted to reduce the halibut bycatch cap by 15% for the**

trawl fleet, and to also reduce the limit in the longline sector. The reduction will be phased in over 3 years – 7% in year 1 (likely 2014), another 5% in year 2 and the final 3% in year 3. **With halibut declining for unknown reasons, reducing bycatch is important to rebuild the population and the fishery.**

Bering Sea Salmon Bycatch

Chinook salmon populations returning to Western Alaska rivers are facing steep declines. Returns to the Yukon River, the farthest migrating salmon run in the world, have been so low in recent years that even subsistence fisheries have been severely restricted. Even with these restrictions, escapement goals have not always been met. In 2012, returns were so low in both the Yukon River and the neighboring Kuskokwim that a disaster was declared for both rivers. **In 2009, the Council voted to limit Chinook salmon bycatch in the Bering Sea pollock fishery. For the first time, the pollock fishery must close if the bycatch cap is reached.** However, the limit is high: 47,591 kings, with a provision for the fleet to catch up to 60,000 Chinook salmon in any 2 out of 7 years without penalty. Western Alaskans, and in-river fishery managers, recommended a 30,000 Chinook cap. As runs decline, the inequity of placing severe restrictions on Alaskans harvesting salmon to provide food for the winter while thousands of the same fish are discarded at sea is dramatic.

The Bering Sea pollock fishery also catches chum salmon as bycatch. Chum salmon runs have been relatively strong in Western Alaska in recent years (except in Norton Sound). But as Chinook runs decline, chum salmon are especially important and it's critical that bycatch of this species is reduced as well. The NPFMC is considering new chum salmon bycatch management measures, including caps and mechanisms to close bycatch hot spots during the fishing season. They are scheduled to take this issue up again in December 2012.

Further Opportunities for Bycatch Reductions

When the Council approved measures to control Gulf of Alaska Chinook salmon and halibut bycatch, they indicated that further reductions would be examined under a future catch share program for groundfish (such as pollock and cod) to give the trawl fleet new ways to fish more selectively. **The Council will next consider this program at the February 2013 meeting.** Currently they have no plan to re-examine Chinook salmon bycatch in the Bering Sea. However, continued declines in Western Alaska Chinook salmon runs could spur further action.

Support Action to Reduce Bycatch

Members of the Alaska State Legislature can support reductions in salmon bycatch in a number of ways, including providing comments via a letter to the North Pacific Fishery Management Council for their April 2013 meeting.

For more information contact:

Pete Wedin - #(907) 399-6001 * Email: pete@captpete.com

Visit www.akmarine.org





BYCATCH

Wasting Alaska's Future

Alaska Marine Conservation Council

BYCATCH: Wasting Alaska's Future

October 1998

Prepared by Francine Bennis,
Dorothy Childers & Steve Ganey



About Alaska Marine Conservation Council

AMCC is a community-based organization of commercial and recreational fishermen, subsistence hunters and fishermen, marine biologists, small business owners and others throughout Alaska whose livelihoods and ways of life depend on a healthy and diverse marine ecosystem.

We bring a coastal community perspective to conservation. Please join us!

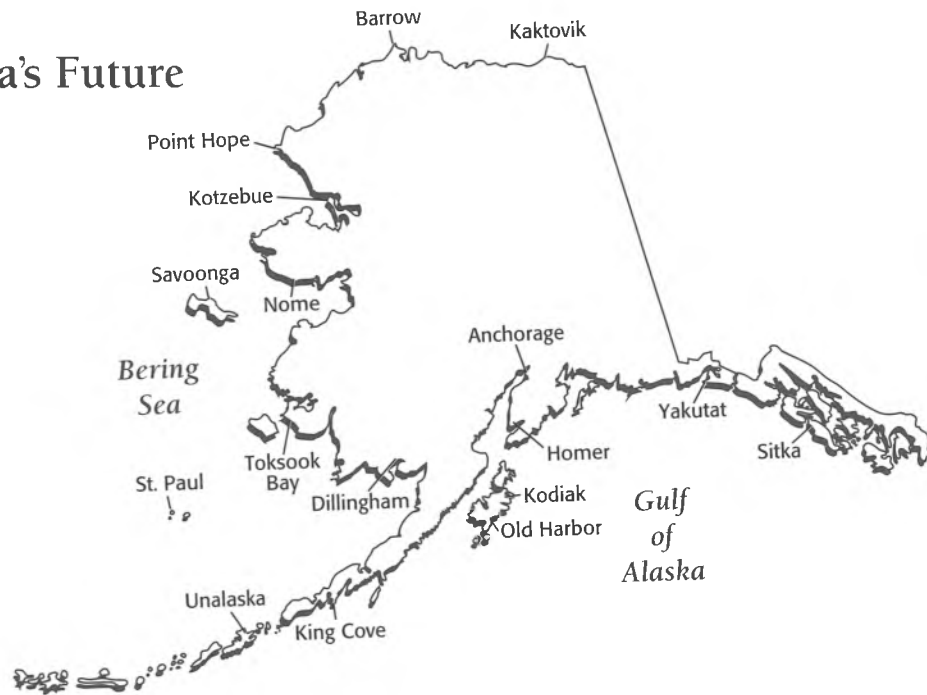
For further information about AMCC's program, how to reach our Board of Directors and Field Offices, or how to get involved:

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e-mail: amcc@akmarine.org
homepage: www.akmarine.org

AMCC is a non-profit 501(c)(3) organization.
Contributions are tax deductible.

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We wish to thank many people for their help: Terry Johnson, Joe Macinko, Luise Woelflein, Ed Roberts, Bob Mikol, Teresa Turk, Bob Childers, Dave Albert, Janet Smoker, Nancy Lord, the NMFS Observer Training Center, Chris Hitchcock, Northern Printing and those fishermen who, for many years, have given of their time and experience to find solutions to bycatch.



*I feel the life in my fingers,
the strength to pick fish
and the patience to mend nets,
and the power
and the need to do the other work
to keep fish and fishing alive,
to do what I can to bring together
history and heaven.*

— Nancy Lord
from Fishcamp: Life on an Alaskan Shore

A CALL TO ACTION

EVERY YEAR HUNDREDS of millions of pounds of halibut, salmon, crab and other fish and marine life are hauled aboard fishing vessels in Alaskan waters and then tossed overboard as bycatch. Year in and year out, 15-20 percent of all the groundfish

caught in the North Pacific are dumped back into the sea dead or dying because they are too small, the wrong sex, or the wrong species.

WHAT EFFECTS are such excessive levels of bycatch having on the marine ecosystem? Does allowing so much waste make economic sense? How does bycatch in the North Pacific affect our coastal communities? How do Alaskans feel about it? This report tells the story of bycatch.

BUT IT'S NOT ENOUGH to just describe the problem. A bright future must include cleaning up wasteful fishing practices and minimizing the associated habitat destruction. To start down the path of solutions, this report provides Alaskans, policy makers and fishery managers specific guidelines for minimizing bycatch in compliance with law. We hope it will serve as a guide as we work together to shape a healthy and productive future for our children and communities.



Bycatch includes fish, crabs and other marine life important to the ocean and our economies.



It was Alaska's coastal peoples who first saw the warning signs of our seas in trouble. Long-lasting solutions will emerge from the people. Our coastal communities are the ecosystem's first line of defense.

Nevette Bowen,
Yakutat

NORTH PACIFIC FISHERIES - A HISTORY



Pot gear

My grandma used to say that everything is connected and if we do something that hurts a part of our environment then we're going to pay consequences. Sometimes we don't know what the consequences are and sometimes they take a long time to manifest themselves. That's the way she raised us - to respect where we live and not to waste, always to share.

Olga Pestrikoff
Old Harbor

THE NORTH PACIFIC is one of the most biologically productive oceans in the world. Enormous plankton blooms in the early spring form the base of the marine food chain which in turn supports nearly 500 species of fish and a diversity of sea mammals and seabirds, some migrating long distances to summer feeding and breeding grounds in Alaska's waters (NRC, 1996). The cultural history of coastal peoples around Alaska is a testament to its richness.

It is not surprising then that the North Pacific holds some of the most productive commercial fisheries remaining in the world. Over the last 40 years groundfish fisheries for pollock, cod, yellowfin sole, rock sole, crab and others have developed into highly mechanized industrial operations designed to maximize catch and efficiency. There is more fishing power today (both in numbers of vessels and technology) in the North Pacific than ever before.



Longline Hooks

Starting in the 1950s, foreign-flagged fishing vessels from Russia, Poland, Japan, and Korea began expanding commercial fisheries offshore Alaska. In an effort to gain control over the management of fishery resources around the United States, Congress passed the Magnuson Fishery Conservation and Management Act in 1976 heralding a new era for North Pacific fisheries. This Act established the Exclusive Economic Zone (EEZ), or those waters from three to 200 miles off the U.S. coast. Congress also formed the North Pacific Fishery Management Council to manage groundfish fisheries of the Bering Sea and Gulf of Alaska. The federal government then began subsidizing development of an American-flagged fleet to build domestic economic opportunities. By 1988 huge foreign offshore vessels that once dominated the North Pacific had fully given way to an immense "Americanized" fleet.



Trawl on deck

These are the groundfish species that are included in the Bering Sea/Aleutian Islands and Gulf of Alaska fishery management plans. Some of these species are managed as assemblages with harvest quotas set for the group. The federal Groundfish Observer Program monitors bycatch in these fisheries. (The State of Alaska monitors bycatch in the crab and scallop fisheries).

- Pollock
- Pacific cod
- Atka mackerel
- Sablefish
- Rockfish
 - Pacific Ocean perch
 - northern rockfish
 - rougheye rockfish
 - shortraker rockfish
 - sharpchin rockfish
 - dusky rockfish
 - thornyhead rockfish
 - canary rockfish
 - china rockfish
 - copper rockfish
 - quillback rockfish
 - rosethorn rockfish
 - tiger rockfish
 - yelloweye rockfish
- Flatfish
 - rock sole
 - yellowfin sole
 - Greenland turbot
 - arrowtooth flounder
 - flathead sole
 - rex sole
 - Dover sole
 - starry flounder
 - longhead dab
 - english sole
 - butter sole
 - Alaska plaice

WHAT IS BYCATCH?

NEARLY 1,000 SPECIES of marine life are caught as bycatch in the North Pacific groundfish fisheries (NMFS, 1998). By weight, this bycatch exceeds the amount of fish harvested during peak years in all the Alaska salmon fisheries combined (NMFS, 1995). The excessive volume of bycatch in the North Pacific is a consequence of modern, large-scale fishing operations driven largely by economic incentives to catch as much fish as possible, as quickly as possible. Vessels out to catch particular groundfish species throw back fish and other marine life that are too small, the wrong sex or the wrong species.

There are several categories of bycatch:

Economic Discards: These are fish of an undesirable size (most of these are juvenile fish, too small for the processing machinery), sex (for example, males in the rock sole roe fishery), or quality.

Species with No Commercial Value: These are species such as corals, skates, sea stars, sponges, sea onions, sea anemones, and countless invertebrates from the ocean bottom, which are important in the marine food web or as habitat for other species (see Ecological Impacts).

Regulatory Discards: These are fish that must be discarded because the season is closed for that species or some other regulatory mechanism is in place.

Prohibited Species: These include crab, halibut, herring and salmon, which are illegal to retain in groundfish fisheries because they are the target species for other fishermen.

All fisheries and types of gear have some level of bycatch. At the two ends of the spectrum, bottom trawl nets are the most indiscriminate gear because the nets are dragged along the ocean floor where many different species live together. Among the groundfish fisheries, jig gear is the most selective. Lost pot, longline and trawl gear can continue to catch fish or entangle marine mammals and birds. This bycatch from "ghost fishing" is not accounted for. As one solution, crab pots are now required to have a biodegradable panel to create an escape route.

Some fisheries have higher bycatch rates than others. Some fisheries waste as much or more fish than they keep. For example, the Bering Sea rock sole trawl fishery had a 60 percent bycatch rate in 1997. In the same year, the Gulf of Alaska slope rockfish fishery had a 54 percent bycatch rate. On the other hand, the combined bottom and mid-water trawl fishery for Bering Sea pollock had a nine percent bycatch rate in 1997 (Pacific Associates, 1998). This bycatch was largely economic discards of juvenile groundfish combined with a lesser volume of halibut, crab and other species. However, a relatively low rate may not indicate a small amount of bycatch. In the case of pollock, a small percentage of a large volume fishery represents a lot of wasted marine life.



Ground up bycatch from trawl vessel

Amount of bycatch from all groundfish fisheries in the Bering Sea / Aleutian Islands & Gulf of Alaska.	1994	1995	1996	1997
Groundfish Species	751,190,000 lbs	645,970,000 lbs	616,919,000 lbs	644,654,000 lbs
Halibut (mortality*)	17,267,000 lbs	14,960,000 lbs	14,926,000 lbs	14,620,000 lbs
Herring	3,995,000 lbs	1,038,000 lbs	3,561,000 lbs	2,515,000 lbs
Chinook Salmon	58,538 fish	36,678 fish	78,638 fish	63,231 fish
Other Salmon	137,112 fish	86,103 fish	82,288 fish	65,578 fish
Red King Crab	281,000 crabs	39,971 crabs	106,747 crabs	74,634 crabs
Other King Crab	83,355 crabs	19,897 crabs	22,304 crabs	29,093 crabs
Bairdi Tanner Crab	2,618,771 crabs	2,223,306 crabs	2,291,576 crabs	2,262,152 crabs
Other Crab	12,495,390 crabs	5,052,305 crabs	3,830,046 crabs	5,654,941 crabs
Marine Life with No Commercial Value	— no information available —			

* Halibut mortality is the portion of total halibut bycatch that is considered dead and counted against the cap (see Prohibited Species, p. 8). Total halibut bycatch is over two times the amount of halibut mortality.

ECOLOGICAL IMPACTS

MARINE LIFE WASTED as bycatch is made up of species that are integral members of the marine ecosystem either as food or shelter for other species. The ecological impacts of bycatch include:

Removal of essential species in the marine ecosystem:

“Some species—even uncommon ones—are so important in their ecosystem that they merit special attention in conservation efforts. Removal of these species might not even be noticed, but would have profound effects on the composition, structure, and functioning of their entire [biological] community” (Norse, 1993). Bycatch of juvenile fish and bottom-dwelling life that may be important is routinely undocumented or underestimated.

Destruction of sea floor habitats by fishing gear and disturbance to the natural abundance of species sharing the intricate food web:

Marine life on the ocean floor and physical structures such as corals and boulders are habitat for fish and invertebrates. When parts of a sea floor habitat are crushed, upended or removed by fishing gear, the habitat is changed and can no longer support all the species that once lived there in their former abundance. In the North Atlantic, scientists have shown that complex bottom habitat supports greater commercial fish productivity (Collie, et al, 1997).

Removal of juvenile fish reduces future fishery productivity:

Scientists have demonstrated that harvesting juvenile fish can turn what appears to be a sustainable fishing rate to an unsustainable one (Myers & Mertz, 1998). For example, the extinction of the common skate in the Irish Sea was caused by fisheries that took too many juvenile skates as bycatch (Brander, 1981). The fate of this



Bycatch is just another word for destruction. We will never understand the negative consequences of this on living marine ecosystems until it is too late. That's why it must stop now.

Larry Merculieff
St. Paul



Sea anemones and tube worms

species illustrates what may happen to many others that fishery managers are simply unaware of or for which they are unwilling to control the bycatch.

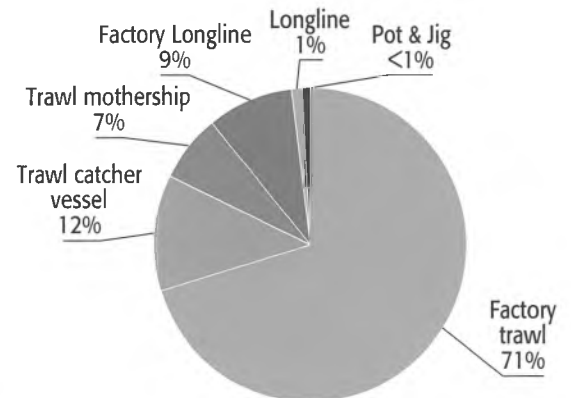
Unobserved mortality and sub-lethal effects from fishing gear: Bycatch may not always be visible from the deck of a fishing boat. Many fish and other ocean dwellers may not actually be caught in fishing gear, yet are crushed or otherwise injured by it. Another source of unobserved bycatch is the potential lethal effects of dumping large quantities of wasted fish on the ocean floor essentially smothering the seabed community (Dayton, et al, 1995).

Habitat destruction and indiscriminate bycatch of species important to the ecosystem may be bringing about significant ecological changes beyond our understanding. “As with the loss of human cultures and languages after the passing of the elders with their wisdom, so too is humanity losing the evolutionary wisdom found in intact ecosystems” (Dayton, 1998).

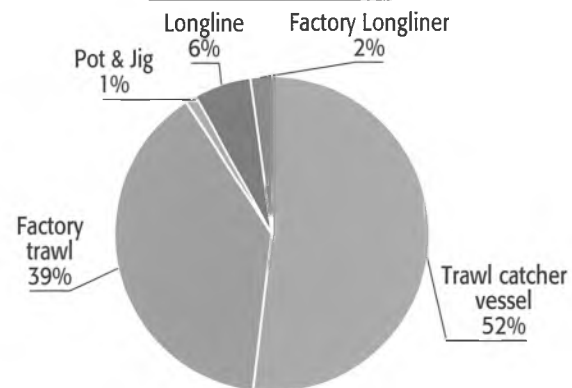
Amount of the total bycatch by each gear type in the Bering Sea/Aleutian Islands & Gulf of Alaska.

Source: Pacific Associates 1998.

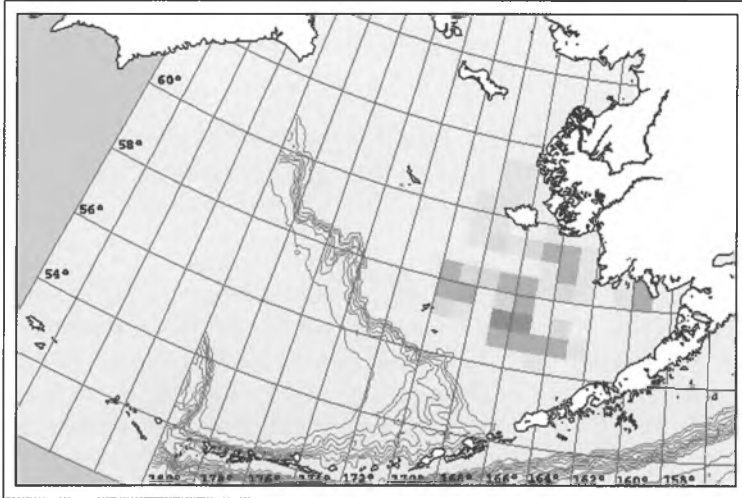
Bering Sea / Aleutian Islands 1997



Gulf of Alaska 1997

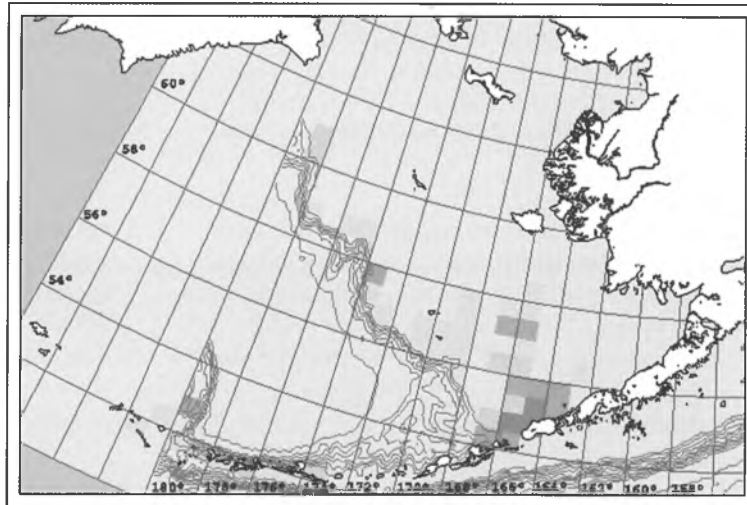


**Yellowfin Sole
(*Limada aspera*)**

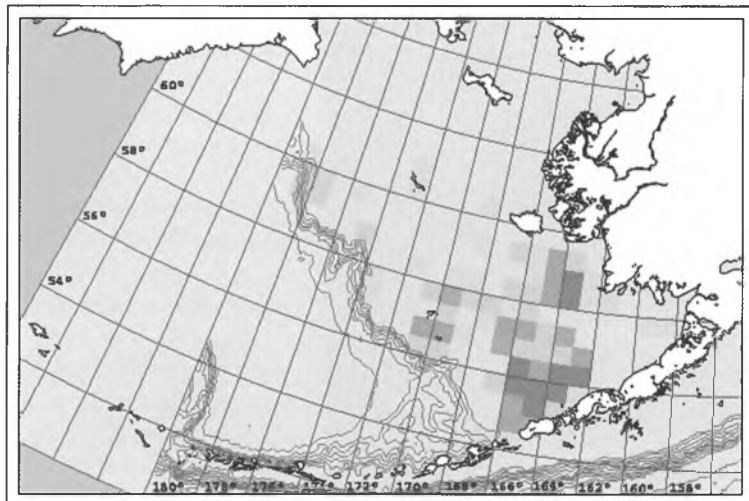


These are computerized maps showing the amount and concentrations of halibut bycatch in three Bering Sea trawl fisheries in 1994. These halibut average less than six pounds each. The amount and location of bycatch in these and other fisheries varies from year to year.







**Pacific Cod
(*Gadus macrocephalus*)**



**Other Flatfish
(e.g. Rock Sole and Flathead Sole)**



Total halibut bycatch (lb)

-  > 110,000 lbs
-  55,000 - 110,000 lbs
-  10,000 - 55,000 lbs
-  11,000 - 22,000 lbs
-  2,200 - 11,000 lbs
-  < 2,200 lbs

Maps developed by AMCC & Interrain Pacific using a geographic information system (GIS). Data source: NMFS Observer Program

ECONOMIC CONSIDERATIONS

BYCATCH has both short- and long-term economic consequences. One study estimated direct economic losses from bycatch in the Bering Sea and Gulf of Alaska amounted to more than \$250 million per year (McGinn, 1998). Some fisheries are called "deficit fisheries" because they actually throw away more value than they keep and sell. For example, the value of bycatch in the Bering Sea rock sole and yellowfin sole fisheries during 1992 and 1993 constituted a net loss of about \$1.79 million each year of wasted halibut, cod, pollock, yellowfin sole, rock sole, and king, bairdi, opilio and blue king crab (Homer Crab Group, 1994).

Bycatch often precludes other valuable uses of fishery resources:

Every year groundfish fisheries are allocated over eight million pounds of halibut as bycatch in the Bering Sea and over six million pounds in the Gulf of Alaska (NPFMC, 1994 & 1995). Halibut that is allocated for bycatch represents fish taken away from directed halibut fishermen.

In years when salmon returns are poor, subsistence and commercial fishermen are hurt. Yet industrialized fishing vessels continue to waste the resource at the usual levels as bycatch offshore. In fact, salmon bycatch in 1996 and 1997 exceeded the 48,000 limit (ADFG, 1998). (By comparison, 48,000 salmon is the entire quota allowed in Alaska's winter troll fishery.) Also during these two years, over 145,000 other salmon (mostly chum)

were wasted as bycatch. Most of these were juvenile salmon that were one or two years away from returning to their rivers of origin to spawn (ADFG, 1998).

In 1991, bycatch in the Bering Sea groundfish fisheries caused more than \$50 million in losses for the Bering Sea crab fishery (McGinn, 1998).

Sometimes commercial fisheries are shut down prematurely due to excessive bycatch caused by other fisheries. For example, in 1997 the trawl fisheries in the Aleutian Islands wasted an excessive amount of shorttraker and rougheye rockfish. The Pacific cod longline fishery involves a smaller amount of rockfish bycatch. But when the longline fishery opened in the same area later that year, they were shut down before they could catch their cod quota in order to prevent overfishing of rockfish. The longliners suffered significant economic losses in terms of foregone harvest opportunity for cod as a result of trawl bycatch.

In the long-term, the economic cost of bycatch comes from losses to future fishery productivity and thus future harvest opportunities (Leaman, 1994). Most halibut wasted as bycatch are juvenile fish (averaging less than 10 pounds depending on the year and the gear type). These fish will not mature to reproductive age to contribute to the future population. Nor will they be available to halibut fishermen for subsistence, commercial or recreational use. The same holds true for the hundreds of millions of pounds of juvenile cod and pollock caught in trawl fisheries.

Other economic impacts of bycatch are more difficult to quantify but no less important:

Bycatch destabilizes the marine ecosystem needed to support commercial, subsistence and recreational fisheries (see Ecological Impacts). Uncertainty in how much bycatch actually occurs increases uncertainty about the total fishery harvest. This in turn makes it more difficult to assess the health of fish stocks, set appropriate catch levels and prevent overfishing. Bycatch reduces the abundance of species that do not have commercial value today, but may tomorrow.

*Remember,
what the federal
managers call
bycatch is
my living.
What they call
the cost of
doing business
will bankrupt our
coastal communities.
What they call a
prohibited species is
what we eat.*

Buck Laukitis
False Pass



TRACKING BYCATCH

MANAGEMENT of North Pacific fisheries depends on scientific data collected by some 400 fishery observers. As biologists on board longline, pot and trawl vessels, observers estimate the total amount of fish caught. They record what species are in the catch and the amount of bycatch. Observers are the eyes and ears of the management system. They collect data used for regulatory compliance and biological data needed for conservation. But how much accuracy is there in accounting for marine life that is caught and discarded as bycatch?

Accurate accounting for bycatch relies completely on an effective Observer Program. But despite laudable efforts, observers are plagued with an overwhelming array of duties and tasks, only one of which is counting bycatch. Observers also face logistical challenges on board. Often the decks of vessels are not physically suited for the observer sampling a haul that may exceed 50 metric tons, or over 100,000 pounds. A single tow of a pollock factory trawler net may exceed 100 metric tons.

As a trawl vessel observer, I would measure the volumetric shape of the codend and collect 10 baskets of 100 pounds of fish randomly throughout the codend to assess the variety of species. Through this sample I would also collect 150 target fish per day to collect sex and length data. For each haul I had to estimate gross weight of fish caught, retained and discarded, assess the amount of prohibited species bycatch, monitor interactions with [marine mammals and seabirds]. I would watch for marine pollution violations and overall compliance with fishing regulations. I had to collect fishing effort data by checking vessel logbooks.



Observer measures volume of fish in trawl.

Current levels of observer coverage are inadequate to quantify the amount of bycatch, especially of non-commercial species. Vessels 125 feet or longer are required to carry one observer full-time. That observer can only monitor fishing activity about 55 percent of the time (NPFMC, 1996). Vessels from 60 to 124 feet are required to have an observer aboard for 30 percent of their fishing time which translates into as little as 15 percent of the catch actually observed. Lack of more than one observer on larger vessels and the patchy coverage on smaller vessels leads to considerable uncertainty in estimated bycatch.

Another factor adding to the uncertainty in bycatch data is a practice called "net bleeding." When a trawl vessel catches too many fish in its net, the vessel operator will "bleed" the net or dump fish in order to safely bring the bulging net aboard. Also vessels may "top off" their catch by targeting on marketable bycatch before delivering their load to a processor. When more fish are caught in the topping off process than is allowed for that bycatch species, the surplus is dumped at sea. Even if an observer is present, estimating the amount of wasted fish is very difficult under these circumstances (Visi, 1996).



The people who make bycatch should think about what they are wasting is what we need to catch for our food.

Annie Alowa
Savoonga



As a foreign fishery observer it wasn't uncommon to see them throw overboard 40-50 ton bags of fish.

Bob Mikol
Fairbanks

Tim Visi, former fishery observer

MAGNUSON- STEVENS ACT



So far measures to control bycatch have been band-aids that have failed to solve the overriding problem of excessive and steadily increasing amount of bycatch.

Paul Seaton
Homer



The Magnuson-Stevens Act is our best hope for protecting the North Pacific from fishery collapses and habitat destruction that has occurred in Atlantic fisheries. It gives us the tools to look after the ecological integrity of our waters and, as a consequence, the economic needs of our communities.

Bob Storrs
Unalaska

Bycatch Yesterday and Today

In the 1970s and 1980s, U.S. fishery managers imposed bycatch restrictions on the foreign fleet operating offshore Alaska. They set bycatch limits on Chinook salmon. There were no-trawl zones in Bristol Bay to protect pot fisheries and a no-trawl zone along the Aleutian Islands to protect halibut. In 1983 they began an aggressive five-year bycatch reduction plan for halibut, salmon and crab. Foreign vessels that fished more selectively and reduced their bycatch of these species were rewarded with extra fishing time.

However, when U.S. flagged vessels entered the fishery bycatch increased because they were not held to the same constraints as the foreign fleet. The no-trawl zones were opened to domestic trawlers in 1983. Ironically, caps on halibut and crab bycatch, established for all fisheries in 1989, institutionalized bycatch at a level higher than had occurred earlier in the foreign fleet. Salmon bycatch was unconstrained in the domestic fleet until 1995 (Witherell & Pautzke, 1998).

Today there are expanded requirements and volunteer measures in place designed to restrain further increase in bycatch, reduce bycatch rates, or protect depleted fisheries or sensitive habitats from further damage. While the list of management measures appears long and some areas are benefiting from a reduction of high-impact fishing practices, the total volume of bycatch remains nearly the same. Management measures to date include:

Prohibited Species Caps: These are limits on allowable bycatch of halibut, herring, salmon and crab. When the fleet reaches the caps assigned to specific fishery or area, that fishery shuts down or the area closes.

Seasonal and Area Trawl Closures to Protect Habitat, Crab, Herring or Salmon: The areas include Pribilof Islands, Bristol Bay, some areas around Kodiak Island, eastern Gulf of Alaska, and prescribed Bering Sea locations for salmon and herring.

Bycatch Hotspots: Groups of trawlers and longliners volunteer to use a Geographic Information System to share the location of and avoid bycatch "hot spots."

Improved Retention/Improved Utilization (IR/IU): In 1998 vessels were required to retain all pollock and cod rather than discarding the unwanted, mostly juvenile, fish. However, vessels that have the capacity

to produce fishmeal or deliver easily to a fishmeal plant are not likely to change their fishing practices to avoid catching juvenile fish. Unless fishermen successfully avoid bycatch, the IR/IU program fails to achieve the conservation goal. It may, in fact, help to legitimize indiscriminate fishing practices by making it appear on paper that there is less bycatch.

Ban on Bottom Trawling for Bering Sea Pollock: This reduced the overall Bering Sea bycatch caps by 220,000 pounds of mostly juvenile halibut, 203,000 whole crabs, and about 350,000 pounds of groundfish (NPFMC, 1998).

The ban on bottom trawling for Bering Sea pollock was approved for the 1999 fishery. It was the first management decision to reduce the total amount of halibut and crab bycatch. More conservation measures are needed to continue ratcheting down those bycatch caps as well as lowering bycatch of juvenile fish and neglected species that have little or no commercial value but play vital roles in maintaining healthy marine ecosystems.

Wouldn't it be better to not catch it in the first place?

To address excessive bycatch and respond to a concerned public, Congress amended the Magnuson-Stevens Fishery Conservation and Management Act in 1996. The Act requires that fishery managers adopt measures to minimize all forms of bycatch by *avoiding* unwanted catch. Congress also required accurate assessment of the amount and type of bycatch occurring in the fisheries. Congress required that these changes be accomplished in two years (by October 1998).

Finally, Congress added a specific requirement for North Pacific fisheries to adopt measures to lower the total amount of economic discards. Leaving no room for interpretation, Congress explicitly legislated that only measures to *avoid* bycatch will satisfy the new law.

Congressional Record

PROCEEDINGS AND DEBATES

Senator Ted Stevens,

Sept. 19 1996 CR S10933:

"We have passed a bill to try to eliminate waste in the fisheries off our shores. If these mechanisms we have adopted through compromise do not work, I intend to be back with a stronger bill. The waste has become just unacceptable, totally unacceptable."

SOLUTIONS

PEOPLE THROUGHOUT ALASKA are concerned about the impacts of bycatch on our coastal communities, economies and the marine ecosystem. Because fishery resources are public resources, every Alaskan has an opportunity and a responsibility to help change fisheries management to reduce bycatch.

Conservation Guidelines for Bycatch Reduction

Developed by the Alaska Marine Conservation Council

Fishery management measures to reduce bycatch must meet these guidelines in order to achieve conservation goals and to comply with the Magnuson-Stevens Fishery Conservation and Management Act:

Measures to minimize bycatch must result in avoidance of all categories of bycatch including species that are ecologically important but have no commercial value.

Measures to minimize bycatch must result in lowering the total amount of marine life removed from the ocean ecosystem. This means not only lowering bycatch rates, but also lowering total bycatch volume.

Measures with the greatest potential for success apply positive incentives which offer economic rewards for conservation.

Measures to minimize bycatch must be integrated with an improved Observer Program to ensure a high level of integrity in data collection and compliance monitoring by fishery managers. The fees assessed to the fleet to cover the cost of the program must be equitably distributed so that one sector of industry is not unfairly burdened.

Some ideas for effective bycatch reduction measures:

- Individual Accountability – Incentive programs to reward fishermen who reduce their bycatch with more allocation
- Increasing fishery allocations to cleaner gear types
- Increasing observer coverage to improve catch data and to achieve greater accountability
- Reducing caps for allowable bycatch of halibut, salmon, herring and crab
- Restrict indiscriminate fishing gear in biologically sensitive habitats

What You Can Do

Write a letter to the North Pacific Fishery Management Council (NPFMC) urging them to act now to minimize bycatch in groundfish fisheries. Write a letter to the Governor of Alaska and urge him to work for bycatch reduction.

NPFMC
605 W. Fourth Ave.
Anchorage, AK 99501
(907) 271-2809

Governor Tony Knowles
State Capitol
P.O. Box 110001
Juneau, AK 99811

The NPFMC meets five times per year. Call the NPFMC, get the schedule and find out when you can join other concerned citizens to testify on bycatch measures. Feel free to contact AMCC for the same information.

Contact your city council, local Fish and Game Advisory Committee or Chamber of Commerce and urge them to pass a resolution supporting bycatch reduction in groundfish fisheries.

If you are a fisherman or a tribal member, work with your fishing association or tribal council on resolutions supporting bycatch reduction in groundfish fisheries.

Join AMCC. Call, email or write for more information on how we can work with you or your community. Or check out AMCC's website.

As fishermen, we benefit from the resource. Taking responsibility for conservation is how we give something back.

Steve Fish
Sitka

If a net was pulled across the Kenai Peninsula catching all the moose, bears, caribou, squirrels, and waterfowl, and then at the end you threw back everything except for the marketable trees – people would go crazy. Yet this is exactly what's being done to our seas. Are we going to allow this until it's too late?

Don Hall
Homer



Observer sorting bycatch

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page 9	Observer sorting bycatch	NMFS Observer Training Center

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