

02/28/13

Overview:

Chinook

Salmon

Bycatch #2

<TARGET><BILL></BILL><SUBJECT>02-28-13 Overview Chinook  
Salmon Bycatch #2</SUBJECT><COMM>HFSH28</COMM></TARGET>

# Inshore Salmon Savings Incentive Plan – SSIP

Managing Chinook Bycatch for the Bering Sea  
Inshore Pollock Sector



118 AFA  
catcher vessels  
Deliver RSW  
Dutch + floater +  
to King cone.

# Bering Sea Pollock Fishery Chinook Bycatch Regulations

- New regulations for Chinook salmon came into place in <sup>starting</sup> 2011 – Amendment 91
- Implemented a Hard Cap on Chinook salmon bycatch in the Bering Sea pollock fishery
- Provided 3 Hard Cap options

*Previously  
Triggered closer areas exemption to  
Rolling Hot Spot  
still in ↑ place for chin. salmon*

*CP*

# Amendment 91

- Three Hard Cap Options:

1. 60,000 Chinook Hard Cap & 47,591 Performance Standard with Incentive Plan Agreement (IPA) *incentive plan agreement.*

*All choose  
to participate*

2. 47,591 Chinook Hard Cap with no vessels participating in an IPA

3. Up to 28,496 Chinook in an Opt Out Pool for vessels choosing not to participate in an IPA when a portion of the fleet does participate in an IPA.

# IPA Requirements

1. Provide incentives at the individual vessel level
2. Incentivize vessels to avoid Chinook bycatch at all levels of abundance in all years
3. Reward vessels that successfully avoid Chinook and/or penalize vessels that fail to avoid Chinook

Excluder device  
30-35% max 40% but stronger screening  
larger chinook can get out

Sea state Co. - move to avoid  
high bycatch areas -  
Active web site on their but how  
stand against others + also  
hot spot weekly or sooner. 4

# IPA Requirements

4. Incentives must influence fishing decisions at levels below the hard cap
5. Hold Bycatch to a Performance Standard of 47,591 in most years

# IPA Requirements

- The Incentive Plan Agreement must describe how each vessel will manage their bycatch to keep total bycatch below the sector level regulatory Performance Standard
  - The Agreement must contain rules to prevent the sum of vessel bycatch within a sector from exceeding that sector's portion of 47,591 in any 3 years within a consecutive 7 year period

# Amendment 91

*Inshore sectors*

- Options 1 & 2 Include sub allocations to each pollock sector.

1. CDQ
2. Catcher/Processor
3. Mothership
4. Inshore

# Sector Hard Cap Limits

1. HARD CAP AVAILABLE IN ONLY 3 OF 7 YEARS
2. EXCEEDING THE PERFORMANCE STANDARD – NOT REACHING THE HARD CAP - COUNTS AS ONE OF THE 3 YEARS

	<b>Performance Standard - 47,591</b>	<b>IPA Hard Cap - 60,000</b>
<b>All Sectors</b>	<b>47,591</b>	<b>60,000</b>
<b>Inshore</b>	<b>26,484</b>	<b>33,390</b>
<b>Mothership</b>	<b>3,707</b>	<b>4,674</b>
<b>C/P</b>	<b>13,516</b>	<b>17,040</b>
<b>CDQ</b>	<b>3,883</b>	<b>4,896</b>

*3 out of 7 years.*

# Sector Performance Standard Allocations

1. THE PERFORMANCE STANDARD IS THE BYCATCH LIMIT TYPICALLY IN PLAY
2. ALLOCATIONS MADE SEASONALLY
3. ALLOCATIONS MADE TO THE VESSEL LEVEL

	<b>Performance Standard - 47,591</b>	<b>IPA Hard Cap - 60,000</b>
<b>All Sectors</b>	<b>47,591</b>	<b>60,000</b>
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# INSHORE SECTOR'S SALMON SAVINGS INCENTIVE PLAN - SSIP -



IPAs found at: <http://www.fakr.noaa.gov/sustainablefisheries/bycatch/default.htm>

# Inshore SSIP Rules

- Each inshore vessel receives a Base Cap Allocation
  - its share of the 26,484 Inshore Performance Standard.
- And an Annual Use Limit
  - its share of the 33,390 Inshore Hard Cap Limit.
- Allocations and limits are made Pro Rata to each vessel's pollock allocation.

*95,96,97 historic pollock allocation % of clinical use limit*

# Inshore SSIP Rules

- Vessels may not exceed their Base Cap Allocation unless they earn Salmon Savings Credits - The *Incentive* in SSIP

1 credit for each 3 salmon below

# Inshore SSIP Rules

- Salmon Savings Credits
  - When a vessel's annual Chinook bycatch is below its Base Cap, Salmon Savings Credits are earned.
  - Savings Credits bridge the gap between the Performance Standard and the Hard Cap Limit.
  - One credit earned for every 3 salmon avoided below the Base Cap.

# Inshore SSIP Summary

- Under the Inshore SSIP program the 33,390 Hard Cap Limit is not a “Hard Cap” in the usual sense.
- Inshore SSIP participants have their share of the 33,390 Limit available to them only if they earned the necessary Salmon Savings Credits.
- The SSIP rules make it impossible for participants to continuously approach bycatch levels at, or even near, the Hard Cap Limit.

*credits are cumulative for 5 years  
then expires put in  
put out*

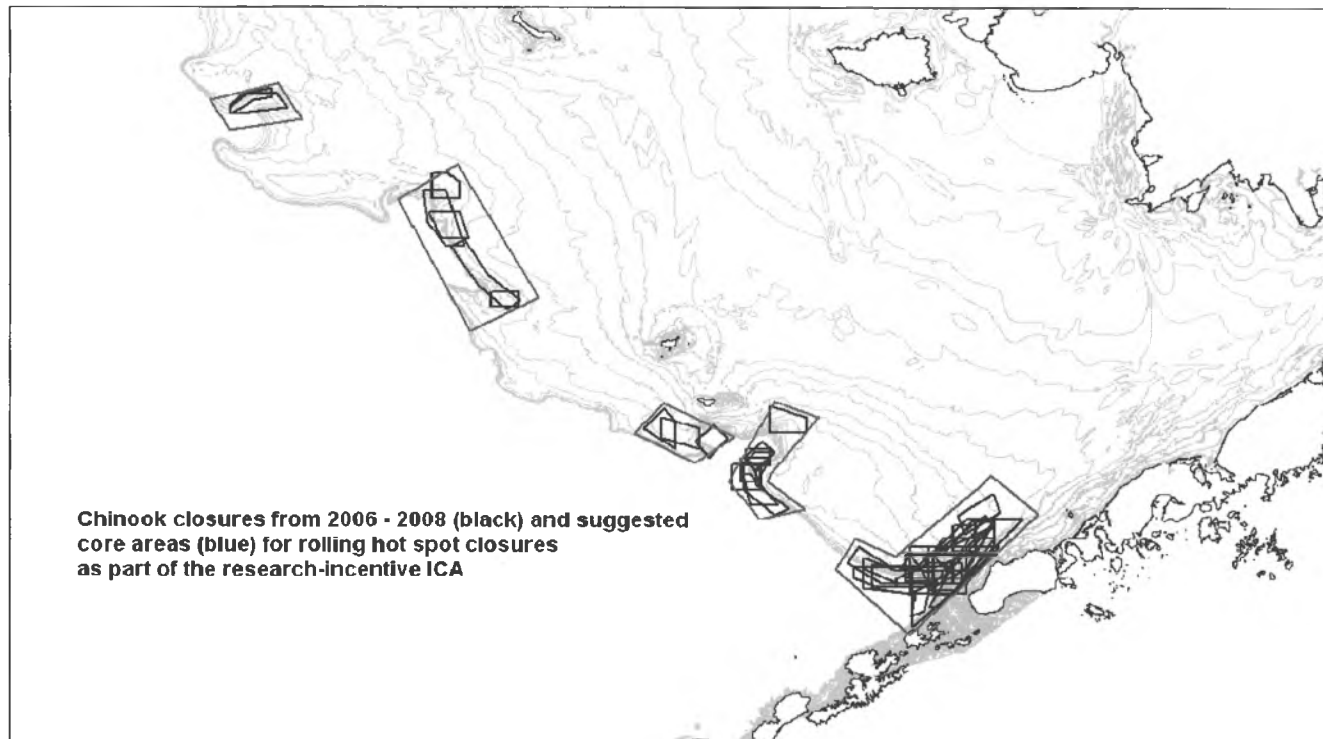
*+  
can only  
use up to  
the hard cap  
limit*

# Inshore SSIP Summary

- SSIP Program contains mechanisms that guarantees average bycatch will be at or below the Performance Standard level.
- The 26,484, *or less*, bycatch average is not theoretical or experimental; but rather an **absolute fact**.
- The Inshore SSIP program provides incentives to keep inshore average annual bycatch at or below ***21,750 Chinook salmon***.

# Fishing Grounds Access Controls

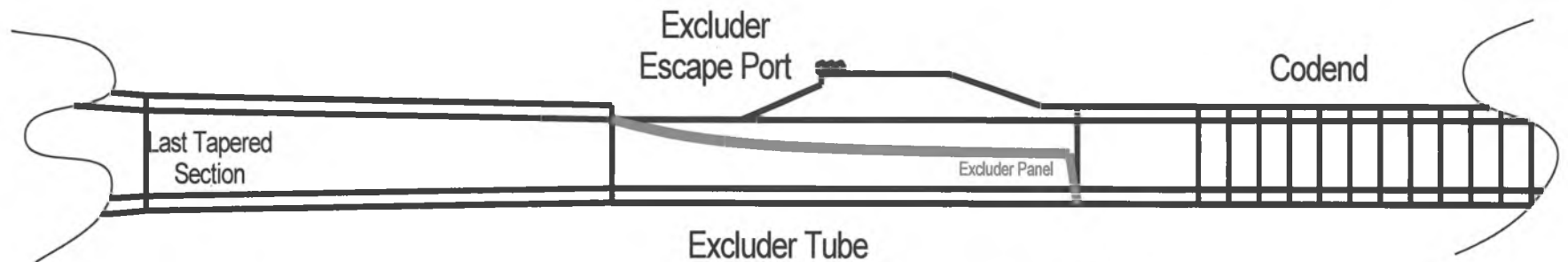
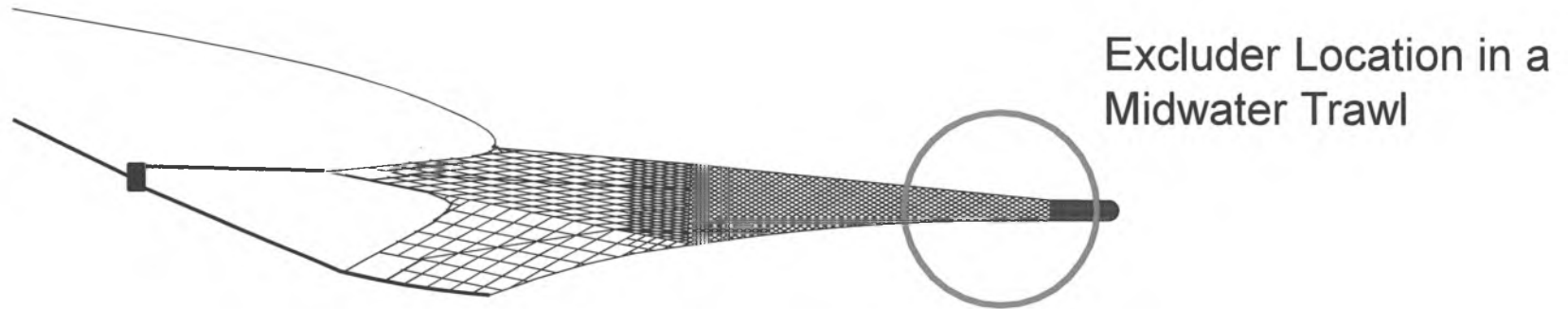
- Includes a Rolling Hot Spot Program during times with low Chinook bycatch
- Includes a Chinook Conservation Closure in the A Season



# Salmon Excluder Update

February 2013

# Salmon Excluder



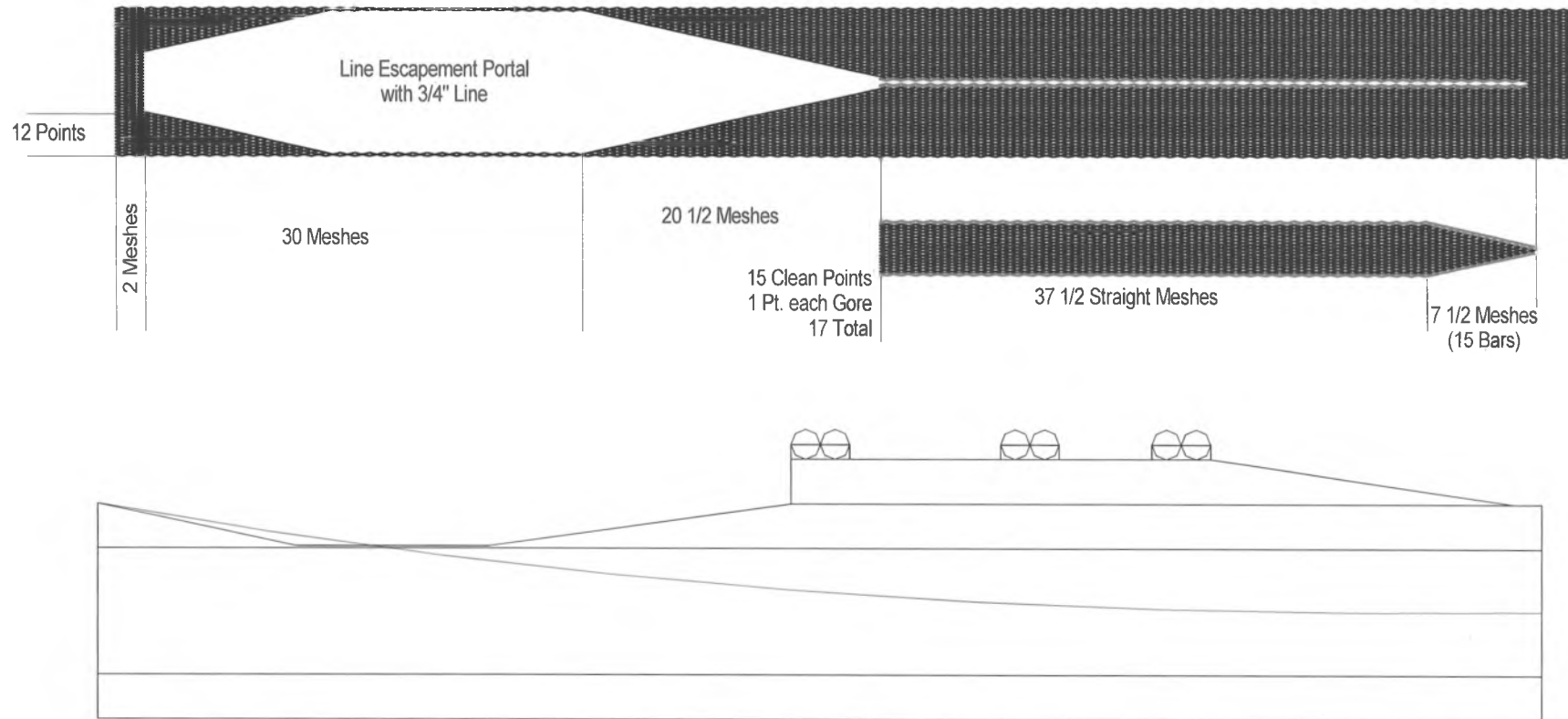
*12 yr. ago.*

*35% chinook escape  
17% pollock escape.*

# 2010 EFP Excluder

*now does not lower efficiency of the trawl*

Tube Excluder Section  
100 Meshes Long by 46 Points Wide



# Model of 2010 Excluder in Flume Tank

*St. John's  
Newfoundland*



# Results of excluder testing on Chinook Escapement; 2009 - 2010

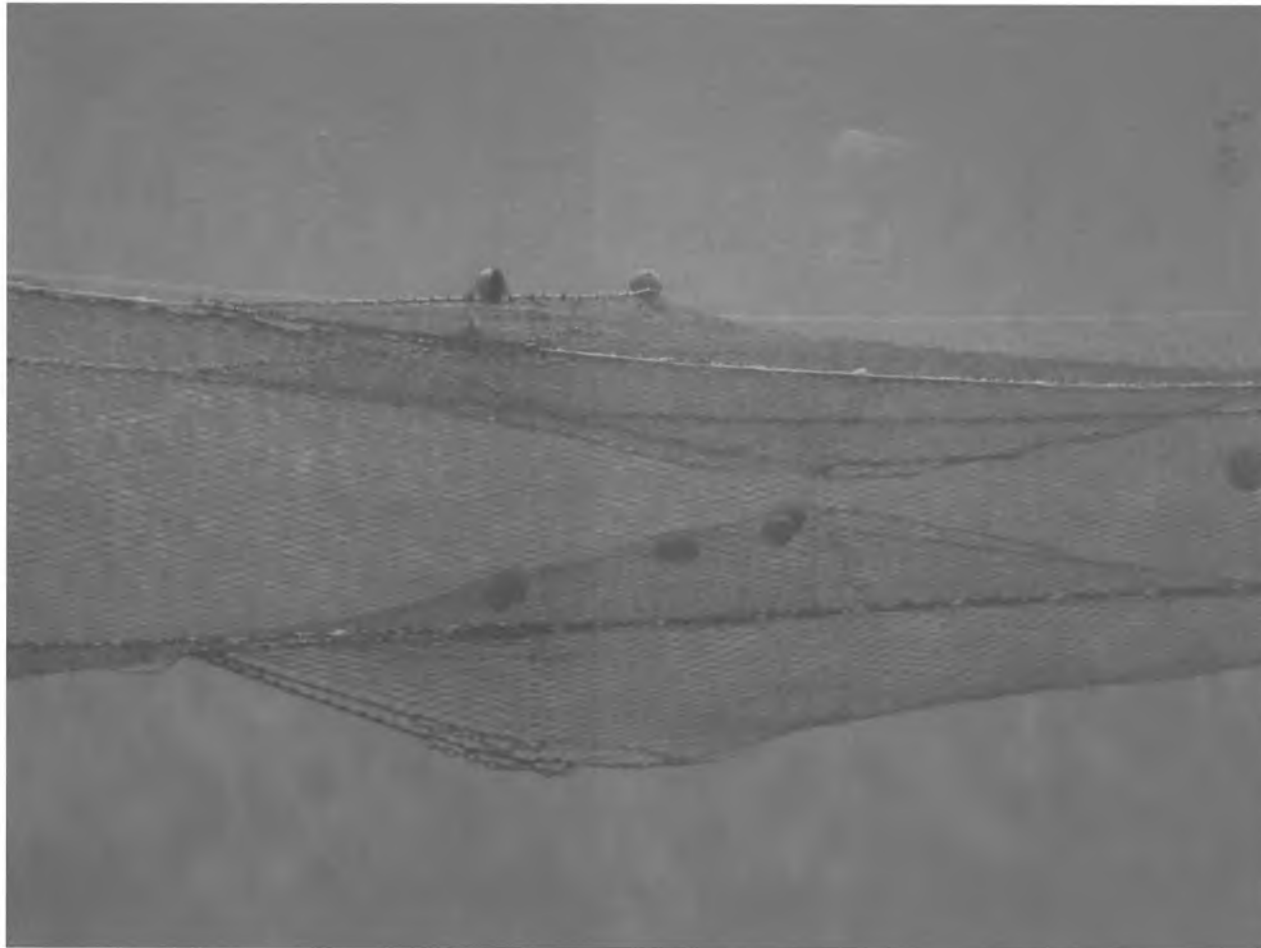
Test /date	Vessel	Codend salmon #	Recap salmon #	Salmon escape %
Winter 2009 P1	Pac Prince	726	91	11.1%
Winter 2009 P2	Pac Prince	1079	209	16.2%
Winter 2009	Starbound	720	70	8.9%
Fall 2009 P1 (chum)	Starbound	196	5	2.5%
Fall 2009 P2 (chum)	Starbound	643	34	5.0%
Winter 2010 P1	Pac Prince	122	62	33.7%
Winter 2010 P2	Pac Prince <i>nigher up catches</i>	37	25	40.3%
Winter 2010 P1	Starbound	150	49	24.6%
Winter 2010 P2	Starbound <i>factory</i>	38	21	35.6%

# Future excluder design

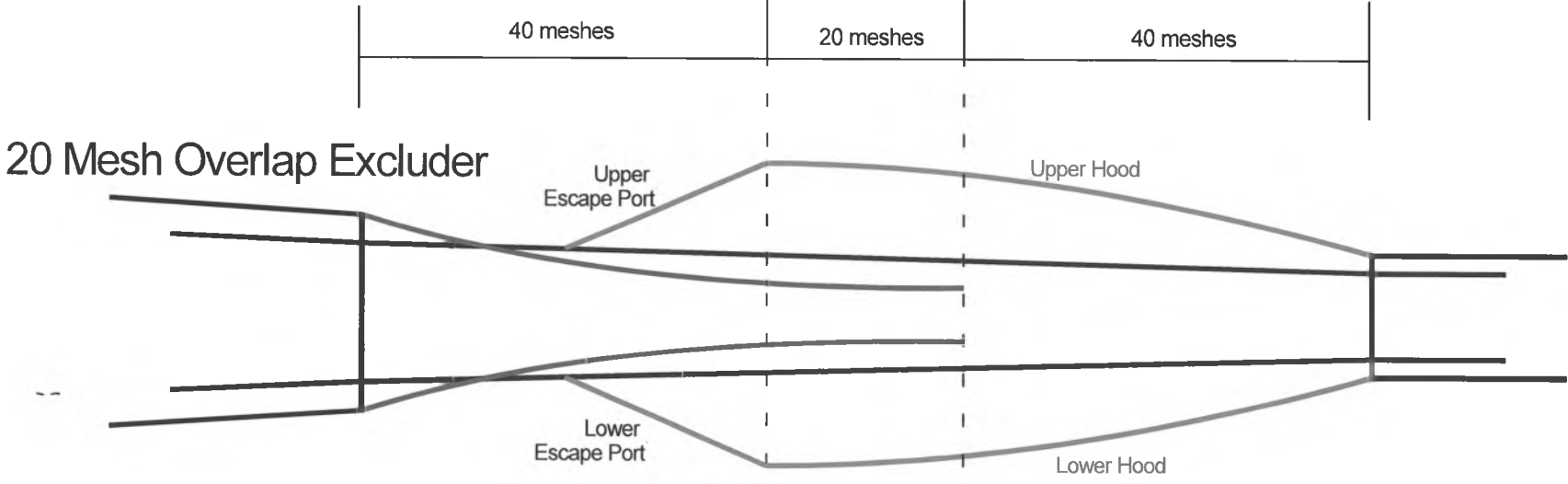
- Provide multiple escapement routes
- Increase both Chinook and chum salmon escapement rates
- Eliminate “touchy” excluder tuning issues
- Stabilize the design for wider horsepower ranges and fishing conditions.

# Future excluder design – Over/Under Excluder Concept

Over/Under Excluder – 1:2 scale model in the flume tank.  
October 2011..



# Over/Under Excluder Development

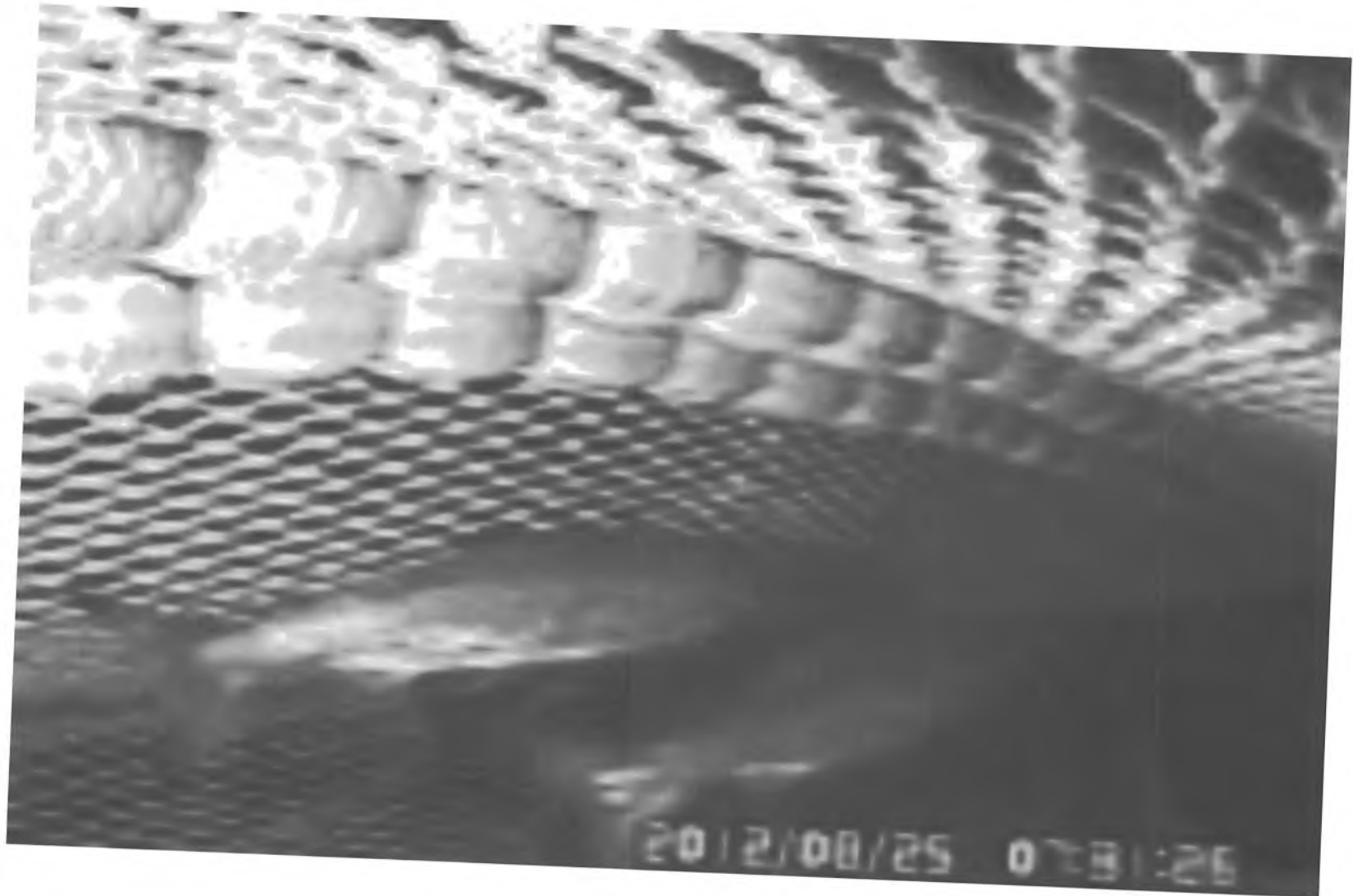


*Chun escape port ~ 20%*

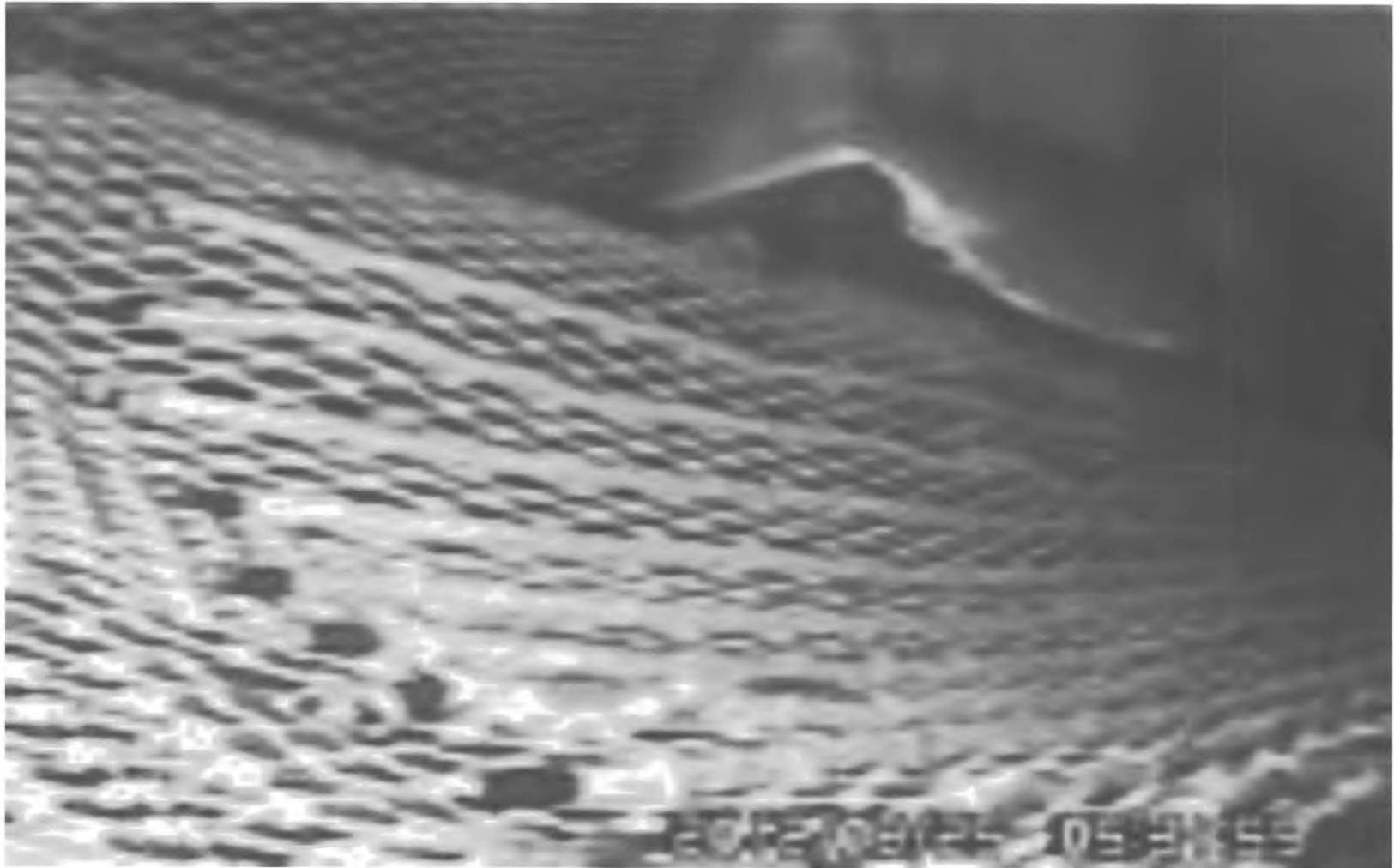
# Over/Under Excluder Development

- Initial test fishing with the Over/Under Excluder took place during the 2012 B Season
- 2012 Test Goals:
  - Identify design flaws
  - Refine initial design characteristics
  - Obtain rough escapement estimates for both Chinook and chum salmon.

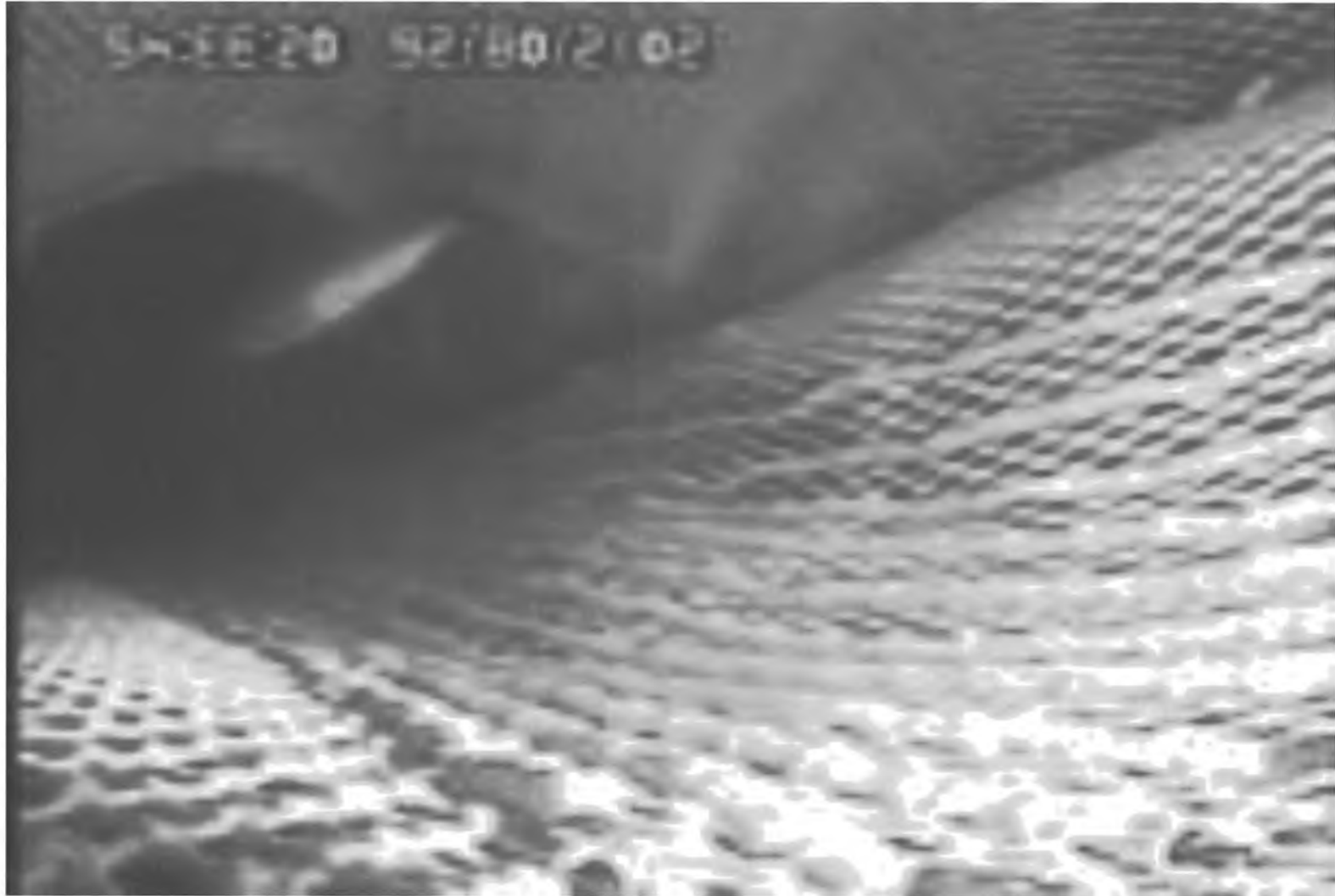
# Over/Under Photos



# Over/Under Photos



# Over/Under Photos



# Salmon Bycatch in the Gulf of Alaska & Bering Sea Groundfish Fisheries

Alaska House Fisheries Committee  
February 28, 2013

Becca Robbins Gisclair  
Yukon River Drainage Fisheries Association  
Alaska Marine Conservation Council

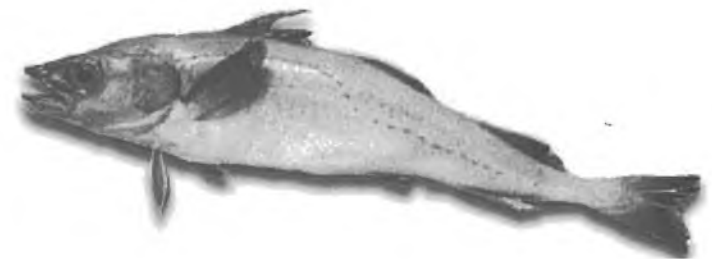


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# Chinook Salmon Bycatch: Background

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- Pollock fishery catches salmon (mainly Chinook and chum) as bycatch.
- Salmon caught in the pollock fishery is a “prohibited species” and must be counted and then discarded or donated to food banks.
- Gulf of Alaska: Salmon caught as bycatch in the non-pollock fisheries as well.



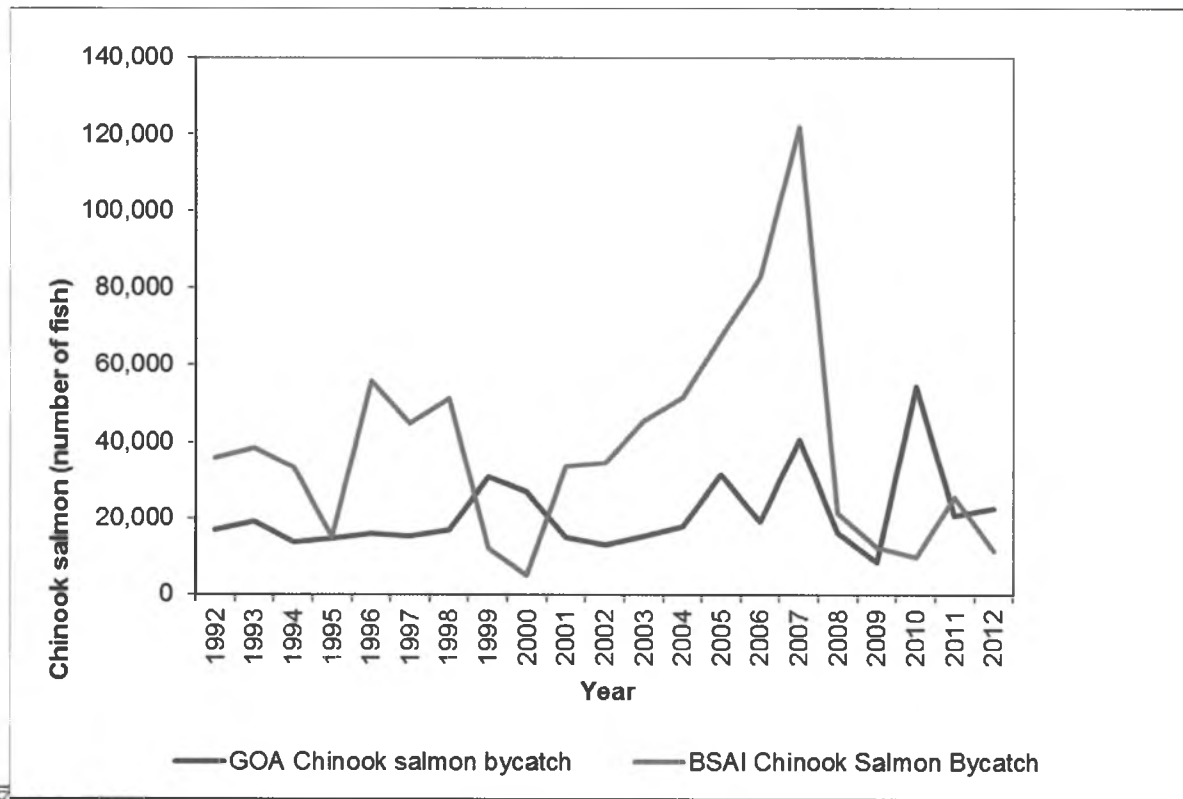
Walleye pollock (*Theragra chalcogramma*)



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# Chinook Salmon Bycatch: Gulf of Alaska & Bering Sea



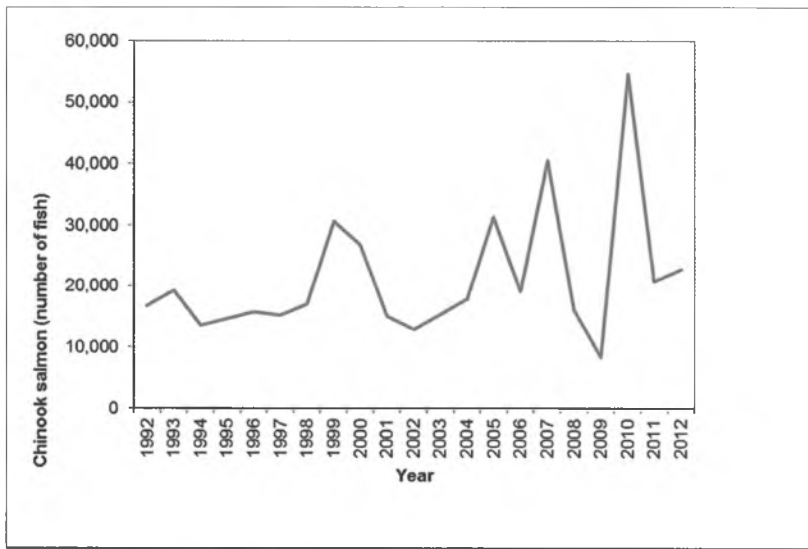
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# Gulf of Alaska Chinook Salmon Bycatch: Trends

## Chinook Salmon Bycatch: GOA Groundfish Fisheries

*Pollock + flatfish*



## Percentage of bycatch by fishery

Year	Pollock	Other Groundfish
1991	22%	78%
1992	49%	51%
1993	70%	30%
1994	53%	47%
1995	34%	66%
1996	72%	28%
1997	62%	38%
1998	84%	16%
1999	86%	14%
2000	69%	31%
2001	63%	37%
2002	40%	60%
2003	29%	71%
2004	74%	26%
2005	89%	11%
2006	84%	16%
2007	87%	13%
2008	66%	34%
2009	38%	62%
2010	82%	18%
2011	67%	33%



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# Gulf of Alaska Chinook Salmon Bycatch: Stock of Origin



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## Stocks Present Include:

- Coastal southeastern Alaska
- Other
  - Includes Western GOA (stock grouping includes Deshka, Karluk, Kasilof, Kenai, Ninilchik, Willow)
- Pacific Northwest
- British Columbia

*Because of limited samples: no percentage information, just presence/absence*



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# Gulf of Alaska: Chinook Salmon Stock Status

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- 7 Stocks of Concern (6 Upper Cook Inlet & Karluk R.);
- 2012: setnet fishery almost completely shut down, Kenai River was closed to all recreational Chinook salmon fishing;
- 2012: Only 4 out of 12 escapement goals were met in Upper Cook Inlet;
- Disaster Declaration for Upper Cook Inlet: Economic losses estimated at almost \$27.7 million to commercial fisheries and direct and indirect losses to sport fisheries. Additional losses to subsistence.

# Gulf of Alaska Chinook Salmon Bycatch: Current Management

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## Pollock Fishery:

- Hard cap of 25,000, started in 2012.

## Non-pollock Fishery:

- Council considering hard caps, range 5,000-12,500;
- Scheduled for final action June 2013.

## Next Steps

- Central Gulf of Alaska trawl catch share program.

# Gulf of Alaska Chinook Salmon Bycatch: Recommendations

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## Pollock Fishery:

- Reduce hard cap of 25,000 by at least half;
- Current cap exceeds 10 year average bycatch of 18,400.

## Non-pollock Fishery:

- Adopt hard cap of 5,000;
- Reduce bycatch from 10 year average of 5,800.

## Trawl Catch Share Program

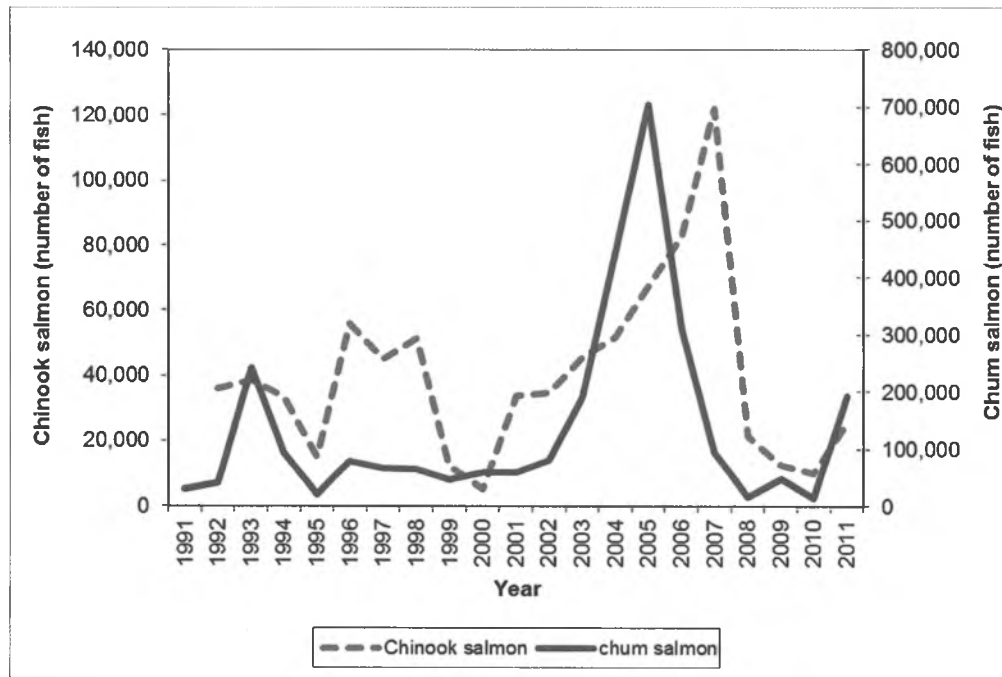
- Additional and **significant** reductions in salmon bycatch.



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# Bering Sea Chinook Salmon Bycatch: Trends

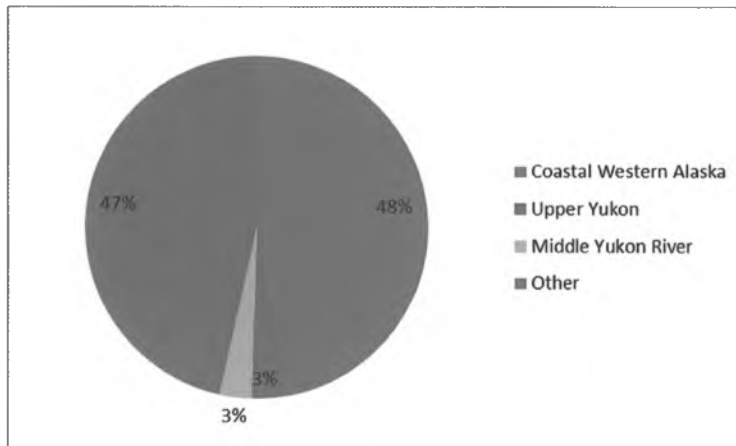


\* Chum salmon bycatch occurs in B season only

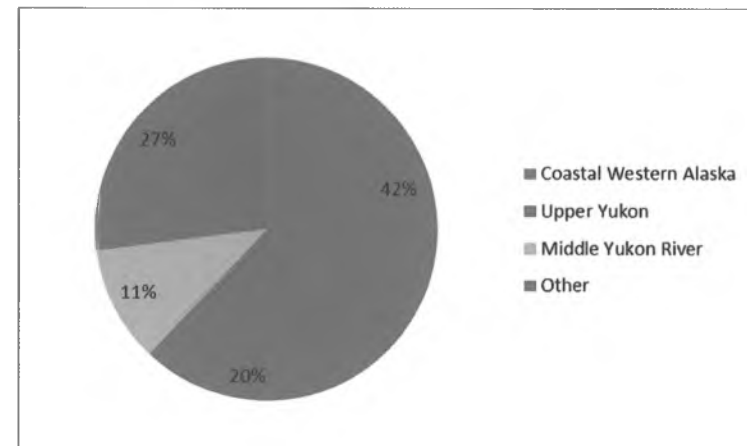
# Bering Sea Chinook Salmon Bycatch: Stock of Origin

## Genetic Stock Composition

2005-2007



2010



Coastal Western Alaska includes Kuskokwim, Lower Yukon, Norton Sound and Bristol Bay

Other includes N. Alaska Peninsula, **Cook Inlet**, the Pacific Northwest, Southeast Alaska, the Pacific Northwest (lower 48) and Russia



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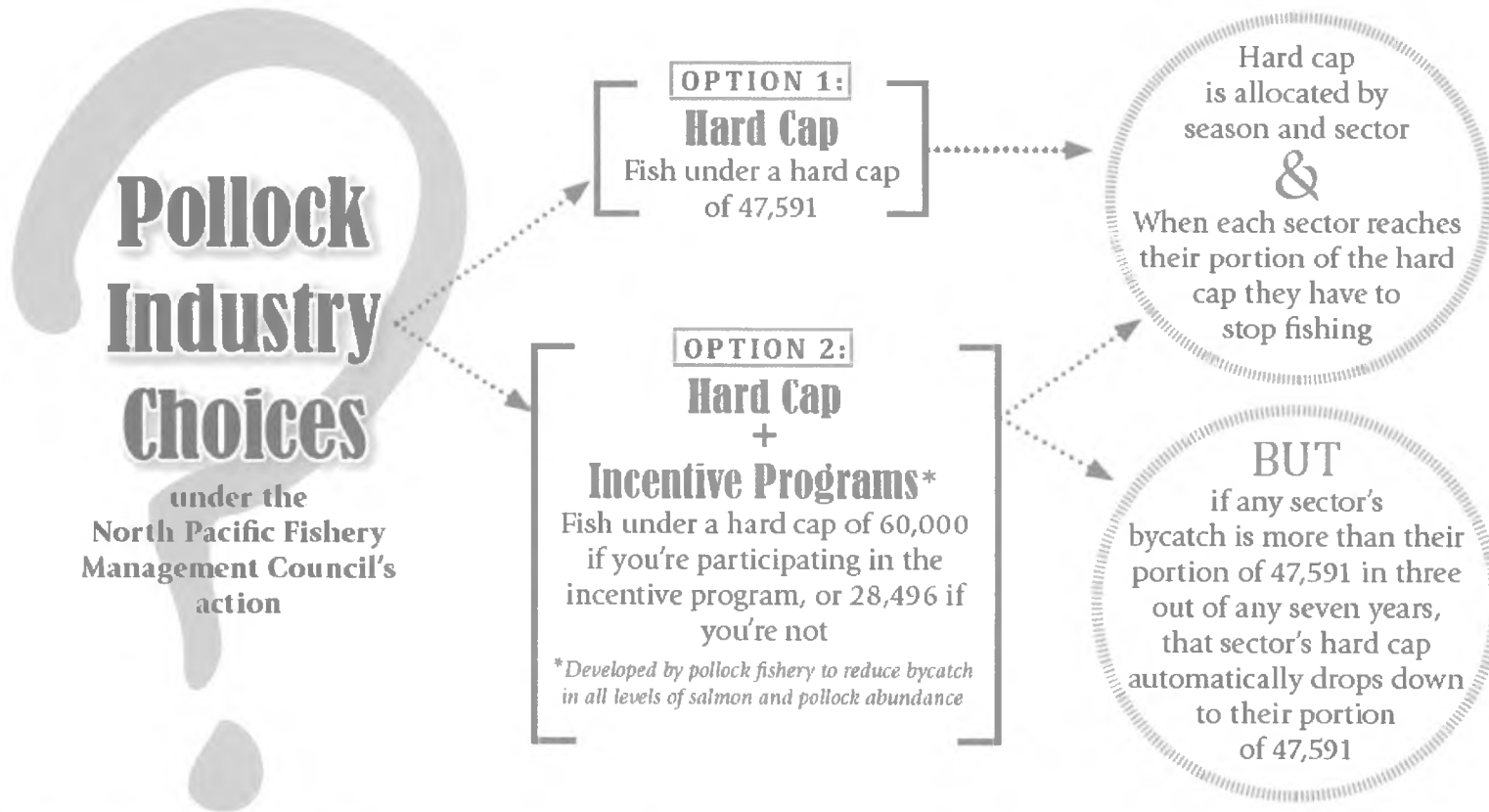
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# Bering Sea: Chinook Salmon Stock Status

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- 2 Stocks of Concern: Yukon River Chinook and Norton Sound;
- Disaster declarations for 2008-2012 for the Yukon River and 2011-2012 for the Kuskokwim River;
- Yukon River:
  - \* Subsistence severely restricted: 2011 and 2012 harvest well below amounts necessary for subsistence (ANS);
  - \* No directed commercial harvests of Chinook salmon;
  - \* Canadian escapement goal only been met in 2 out of the last 5 years;
  - \* Mean run size of Canadian-origin Chinook salmon) declined 45% for the period 1998-2010 compared to 1982-1997;
- 2012: severe subsistence restrictions due to low returns on the Kuskokwim as well.

# Bering Sea Chinook Salmon Bycatch: Current Management



# Bering Sea Chinook Salmon Bycatch: Recommendations

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## Reduce overall cap by at least half

- Western Alaska groups, the Alaska Board of Fisheries, Federal Subsistence Board and many others requested a cap of 30,000 initially;
- 60,000 hard cap could result in catch of over 40,000 Western Alaska fish according to 2010 genetic data (without adjusting for marine mortality).



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Pollock spills from a trawl net onto the deck of the Saga Sea, a factory trawler fishing in the Bering Sea, Alaska.  
© Natalie Fobes/Corbis



## Questions?



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