

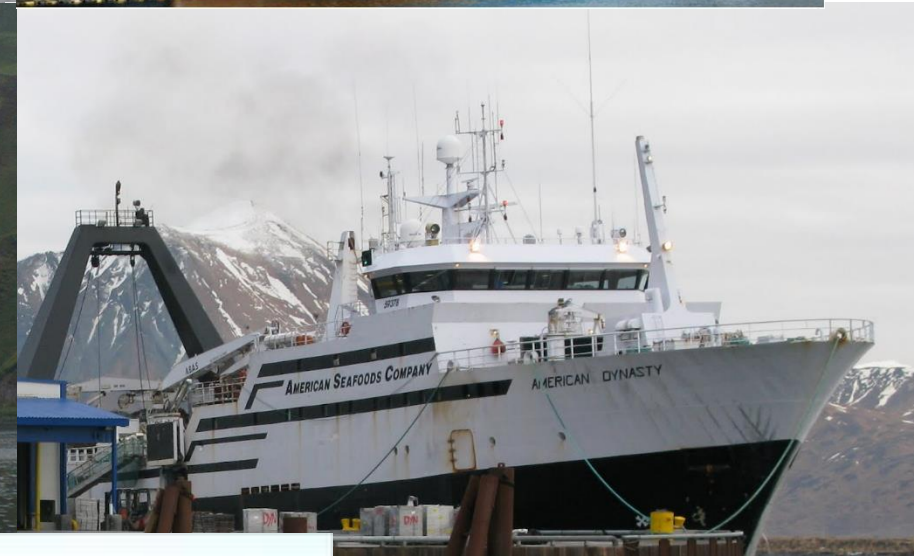
Catcher/Processor Chinook and Chum Salmon Bycatch Reduction Incentive Plan and Agreement

“An innovative approach to bycatch reduction”

*Presentation—Alaska Bycatch Review Task Force (ABRT)
Western Alaska Salmon Subcommittee*

Austin Estabrooks, Natural Resources Analyst
Seattle, WA
May 12, 2022

At-sea Processors Association - Who are we?



Amendment 91 & 110 to the BSAI Fishery Management Plan

Amendment 91

Performance Standard

47,591 Each pollock sector (shoreside, at-sea, mothership, CDQ) gets relative share of total for year.

Incentive – If a sector exceeds its share in 2 of 7 years, it is limited to the performance share thereafter.

Overall PSC limit

60,000 The entire pollock fishery is shut down if this limit is hit.

Amendment 110

If Western AK 3-river system index **> 250,000**
then Performance Standard = **47,591**
and overall PSC limit = **60,000**

If Western AK 3-river system index **< 250,000**
then Performance Standard = **33,318**
and overall PSC limit = **45,000**

Western AK 3-river system index: Each year, ADF&G provides a Chinook salmon abundance using the 3-System Index for western Alaska based on the post-season in-river Chinook salmon run size for the Kuskokwim, Unalakleet, and Upper Yukon aggregate stock grouping.



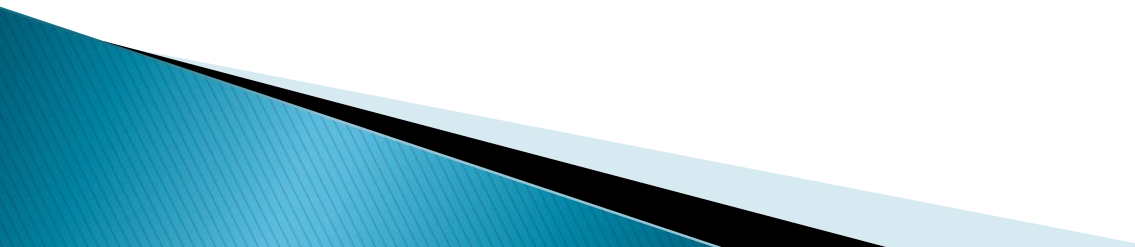
Chinook Prohibited Species Catch Limits

Pollock Sector	Performance Standard limit (Low Abundance)	Absolute Limit (Low Abundance)	Performance Standard limit	Absolute Limit
CDQ	2,732	3,690	3,883	4,896
CP	9,462	12,780	13,516	17,040
Totals	12,194	16,470	17,399	21,936
Average Vessel Limit (with buffers)	903	1,267	1,304	1,687
Chinook rate (Number/mt pollock)*	0.0015	0.0020	0.0024	0.0027

* Based on 2021 pollock harvest levels



What is an IPA?

- ▶ Chinook and Chum Salmon Bycatch Reduction Incentive Plan and Agreement (CP IPA)
 - ▶ **Rewards** for avoiding salmon, **penalties** for failure to avoid salmon **at the vessel level** under any condition of pollock and Chinook abundance in all years.
 - ▶ Incentives to ***change the behavior*** of the operator of each vessel to avoid salmon.
 - ▶ Incentives that will ***reduce vessel bycatch rates*** relative to what would have occurred in the absence of an IPA.
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Incentive Plan Agreement (IPA) Components

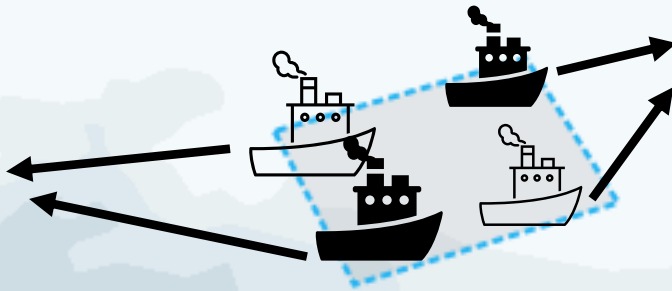
- Data gathering, monitoring, reporting, information sharing.
- Identification of bycatch avoidance areas (Rolling Hot Spot Closures).
- Fishing area prohibitions for vessels with poor bycatch performance.
- Fixed Closures: A-season closed area & conditional B-season closed areas.
- Performance criteria to ensure Chinook PSC rates in October are not significantly higher than prior months
- Penalties for vessels with consistently higher Chinook salmon bycatch rates relative to the fleet.
- Requires the use of Salmon Excluder Devices

Annual Report to NPFMC due March 15th



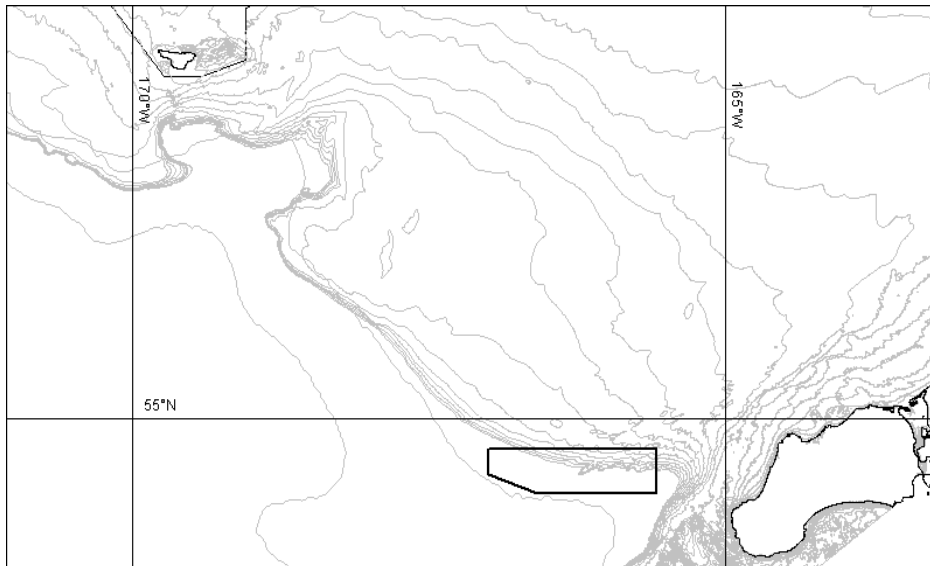
Rolling Hot-Spot Closures

IF the Base rate is 3.5 Chinook per 100 tons of pollock,
THEN vessels must have a rate less than $3.5 * 0.75 = 2.62$
Chinook per 100 tons of pollock, otherwise they must avoid
the area.



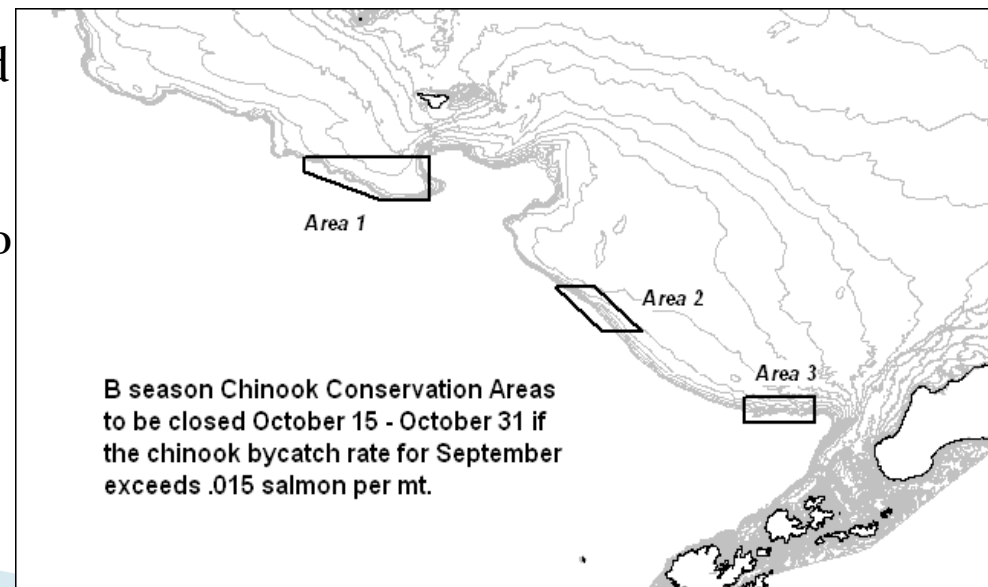
A-season Chinook Conservation Area

735 square mile area closed to all pollock fishing 100% of the time during A season

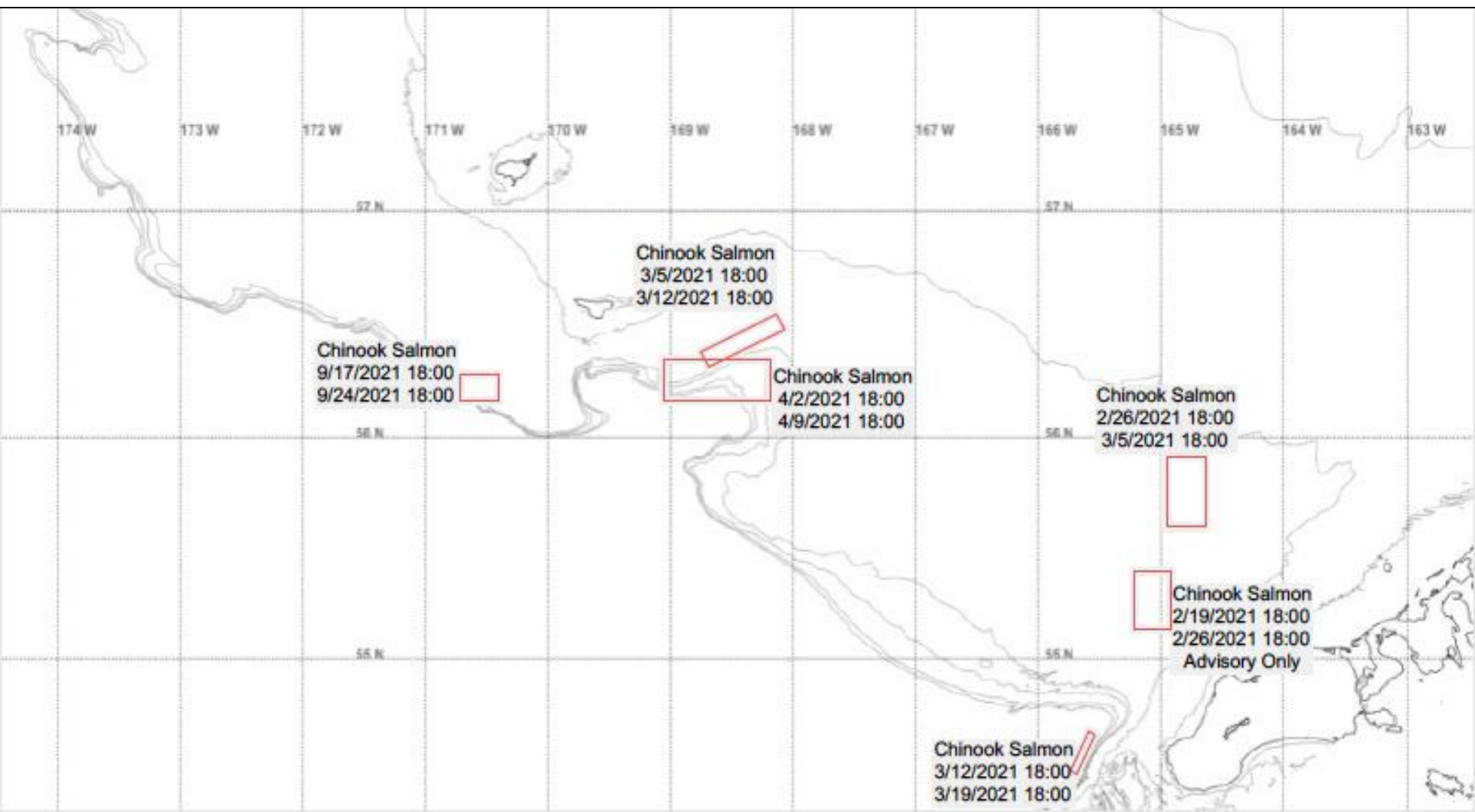


B-season Chinook Conservation Areas

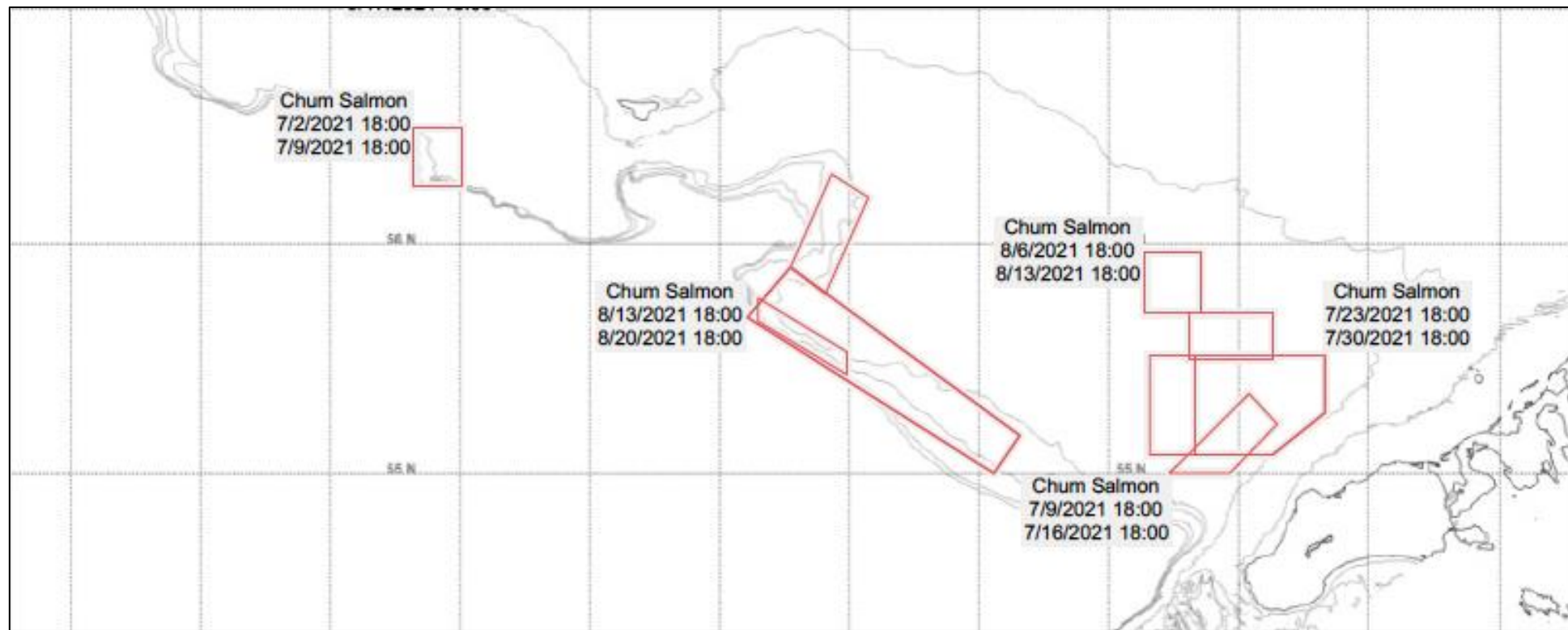
Areas totaling 1295 square miles closed to CP pollock fishing Oct 15-Oct 31 if the Chinook bycatch rate for September exceeds 1.5 Chinook per 100 tons pollock.



Identification of Chinook Bycatch Avoidance Areas



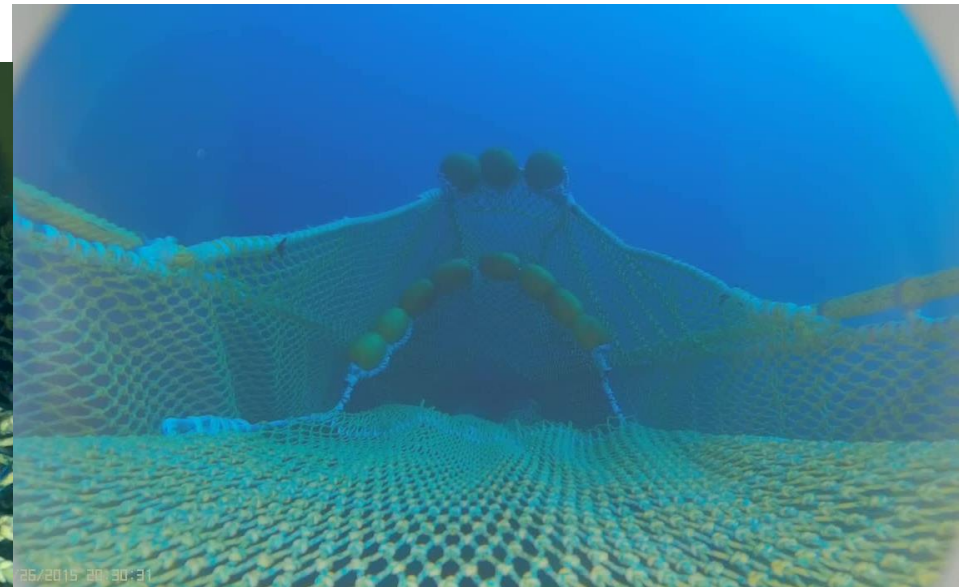
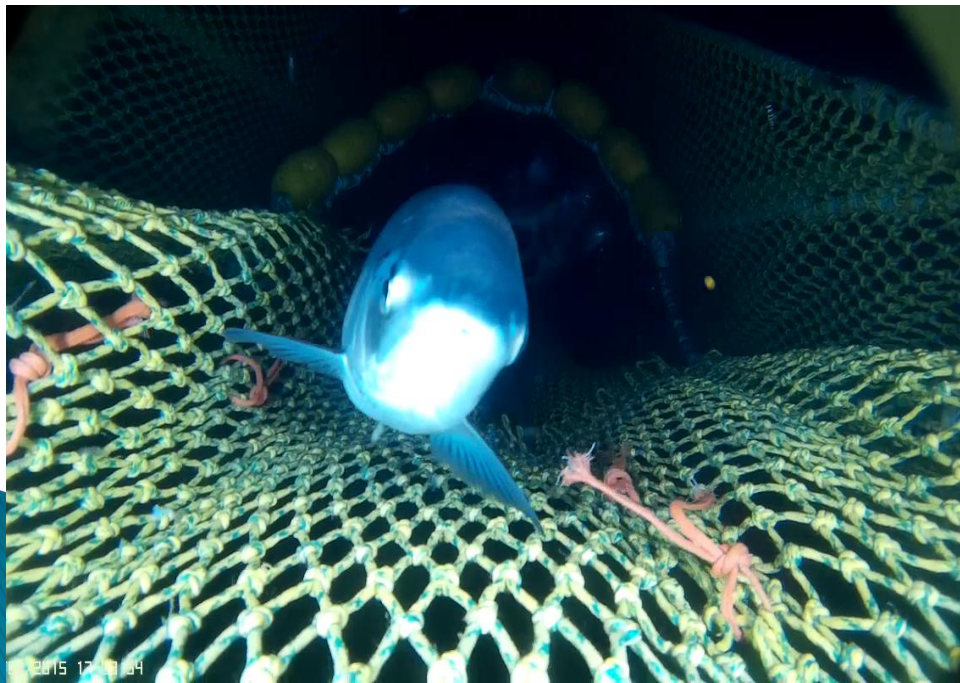
Identification of Chum Bycatch Avoidance Areas



Week	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/27	9/10
Number of CPs excluded from BAAs	2	2	6	7	6	4	2	4	2

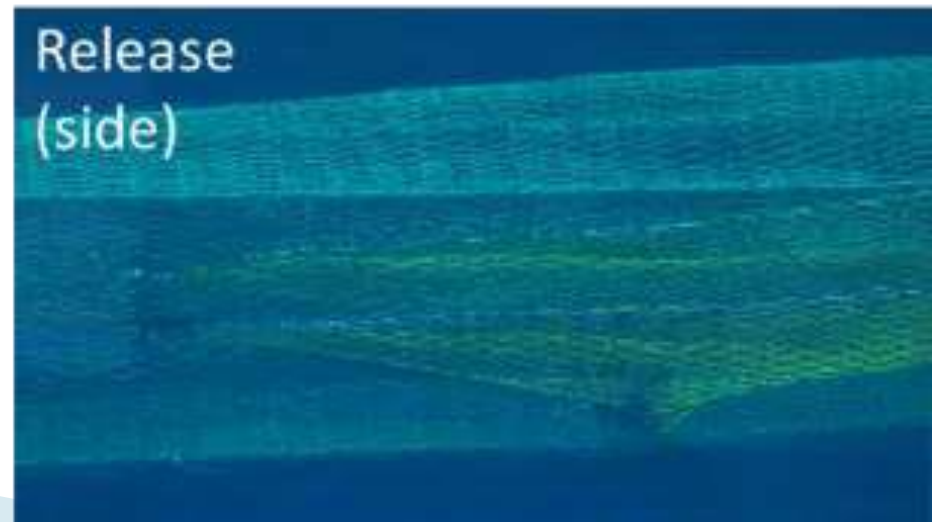
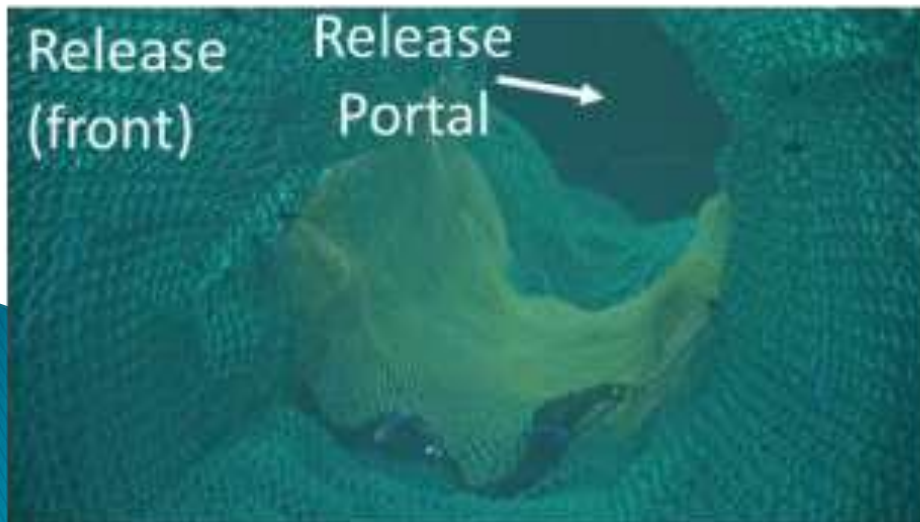
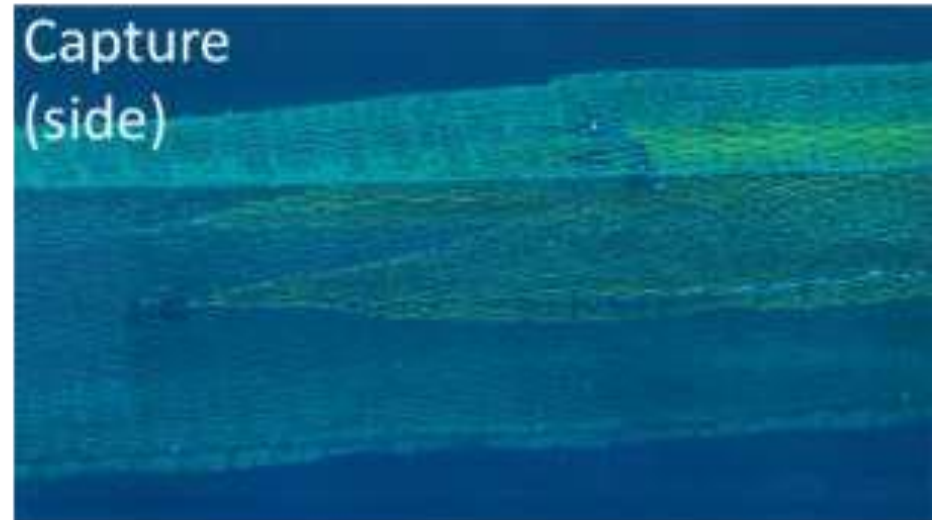
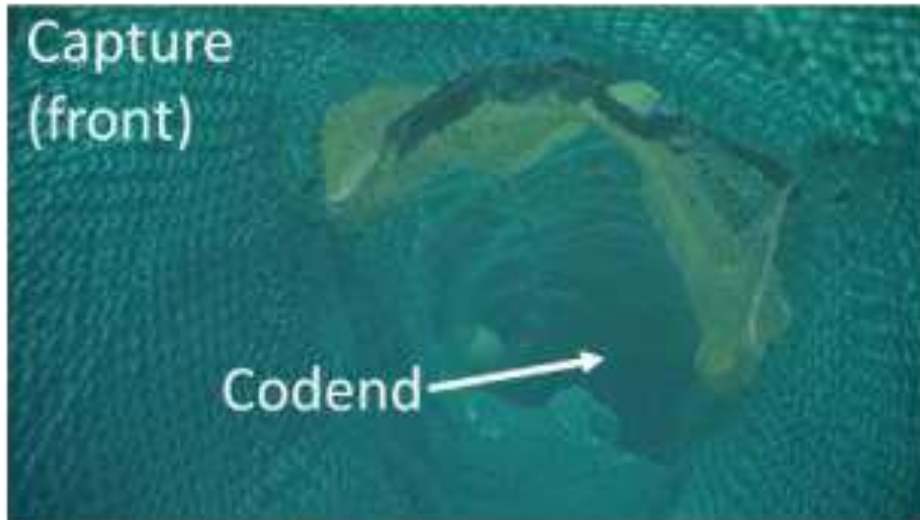
Salmon Excluder Requirement

- MacMarine prototype titanium trawl camera Mobius ActionCam HD wide-angle lens
- Sexton prototype Aluminum trawl camera
- Underwater LED lights attract both chum and Chinook salmon in field experiments
- SIMRAD FX 80 Live Feed Camera

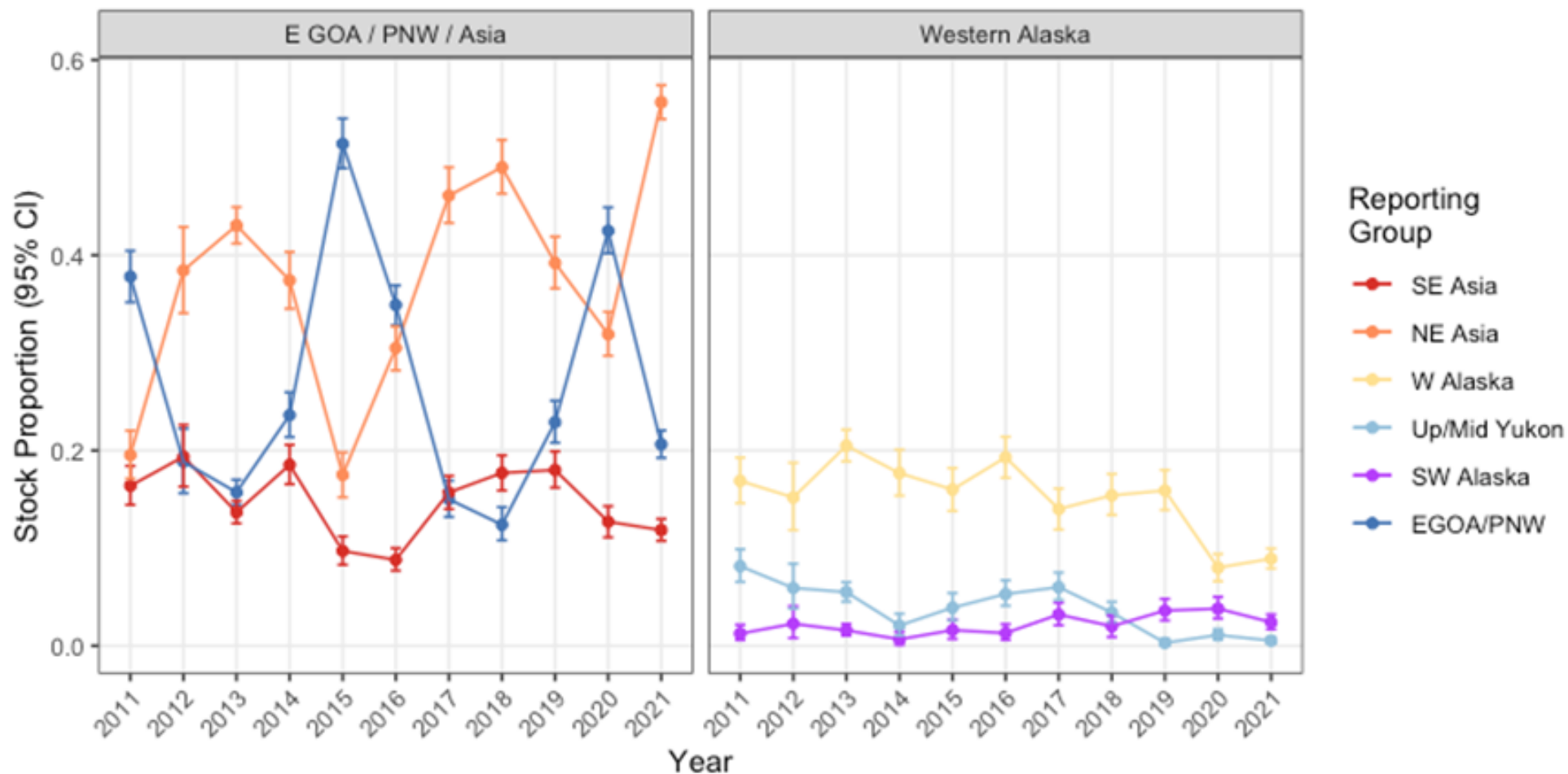


Active Selection- Bycatch Reduction Engineering

<https://youtu.be/4tcELNZUYGo>

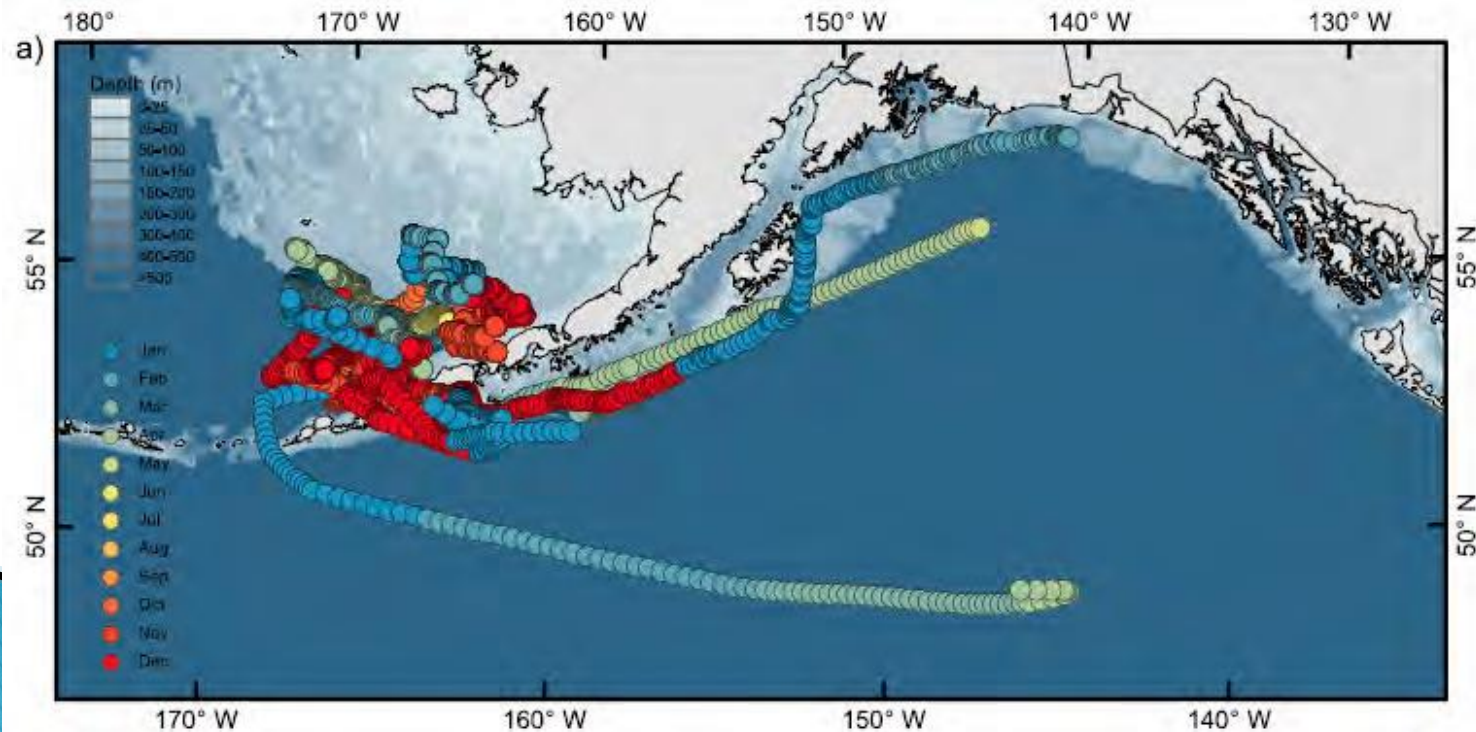


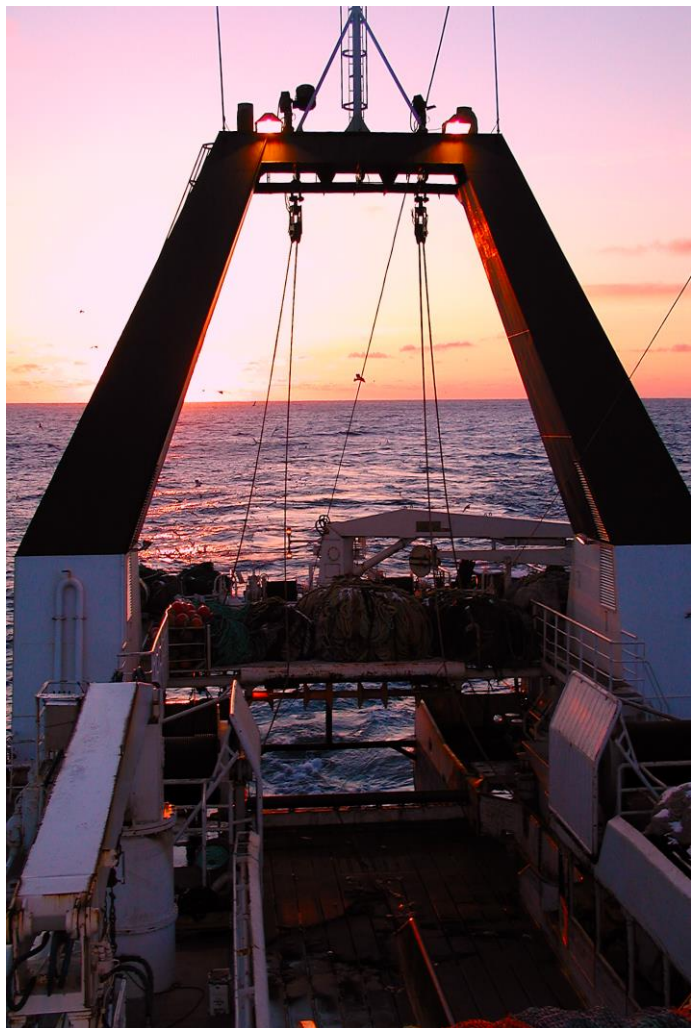
Genetic Stock Composition Analysis-Chum Salmon Bycatch 2011-2021



Pollock Conservation Cooperative Research Center-Salmon Research

- ▶ Shipside Salmon Stock Identification-Mitochondrial DNA sequencing
- ▶ Chum Species Distribution Models- AYK-SSI Proposal
- ▶ Spatiotemporal dynamics of Chum Salmon Bycatch in the Bering Sea
https://pdbarry.shinyapps.io/GSI_Salmon_LandingPage
- ▶ Getting ahead of bycatch spikes: using species distribution models to predict Chinook salmon and walleye pollock fleet overlap





Thank you!



American Seafoods Company
Arctic Storm, Inc.
C/P Northern Hawk
Glacier Fish Company
Trident Seafoods Corporation

www.atsea.org

