



## **KRSA statement in support of ACR #8 requesting the Alaska Board of Fisheries to review 5 AAC 21.359 Kenai River Late-Run King Salmon Management Plan**

### **Summary:**

The stated purpose of ACR #8 is threefold:

- The sustained yield of this vitally important stock of fish should be maintained at acceptably healthy levels to support the fisheries dependent upon Kenai River late-run king salmon. To accomplish this outcome escapement objectives must be achieved.
- The management plan governing the fisheries for Kenai River late-run king salmon should be amended in such a manner that the uncertainty associated with the ability of the Alaska Department of Fish and Game (ADFG) to estimate in-river return is recognized in the language of the plan. Specifically the plan should not articulate very specific numerical trigger points when the assessment program is unable to recognize those same specific points.
- The burden of conservation be more equitably shared between the sport, personal-use and commercial set net fisheries during times when yields are estimated to be low or when achievement of the escapement objective is in doubt.

Historically low levels of abundance of Kenai River late-run king salmon were observed in 2009, 2010 and 2011. There is a distinct possibility that the minimum escapement goal of 17,800 fish was not achieved in either of these three years. The Department's current capability to estimate the total return of late-run king salmon of Kenai River origin is marginal in spite of their best efforts. As a result, the Department's ability to estimate escapement is compromised by a high degree of uncertainty. The assessment program is so wrought with uncertainty both in-season and post-season that distinguishing 17,800 spawning fish is technically impossible. If distinguishing over/under 17,800 in-season is impossible then the existing technology is incapable of accommodating the specificity required by the codified management plan.

## **ACR #8 is warranted because:**

- It addresses a conservation issue that has only come to light clearly in the wake of the 2011 season. Department managers cannot “see” an escapement of 17,800 fish through the noise of uncertainty.
- The inability to determine with accuracy and precision when the escapement is projected to be under or over 17,800 was unforeseen at the time the plan was developed and adopted. During the February/March meeting of the Alaska Board of Fisheries senior staff from the Sport Fish Division stated that the Echo Length Standard Deviation (ELSD) split beam sonar estimate would drive management of the fishery. This did not happen and appropriately so. During the 2011 season KRSA was told by area and regional management staff that they placed the most weight on the Net Apportioned split beam estimate.
- The restrictive measures applied to the commercial set net fishery were appropriate and welcomed by KRSA but we do not find authorization for the tools used in 2011 in any of the codified management plans. KRSA would like to see these tools spelled out in regulation.
- The precautionary principal described in the Policy for Sustainable Salmon Fisheries provides clear direction for the Board of Fisheries and the Department in situations like the one we now experience with late-run Kenai River king salmon.

For these reasons, there is compelling justification to accept ACR #8 and place this issue on the agenda for the 2011/2012 BOF cycle.

## **Observations:**

The Department claims in their response to ACR #8 that:

*The 2009 Kenai River late-run king salmon escapement has been reported as below the escapement goal range. Preliminary postseason analysis of the 2010 late-run king salmon assessment data, including Statewide Harvest Survey (SWHS) estimates, indicates the 2010 escapement goal was attained. The same is true for preliminary analysis of the 2011 late-run king salmon escapement. The 2011 analysis could take place because it did not require SWHS data; the fishery was closed upstream of the Soldotna bridge, and creel survey data provides for the estimate of harvest below the bridge. It should be noted that uncertainty in the assessment data, as described at the*

*February 2011 board meeting, means there is some probability the escapement was below the goal.*

The Department further suggests in their memo of September 30, 2011 (RC # xx) that the escapement realized in 2011 was in the range of 16,100-51,900 fish with a point estimate of 29,800 fish. The memo states that there is only a 4% chance that the escapement in 2011 was less than the low end of the goal range, 17,800 fish.

If, in fact, the spawning population in 2011 was 29,800 as suggested in the memo of September 30 then it comes as quite a surprise not only to KRSA and a majority of the fishing public but it must also come as a surprise to the Department's sport and commercial fisheries management staff. Prior to and during the 2011 season a substantial list of restrictions were implemented in an effort to address what staff thought was a conservation concern for late-run king salmon. The Department prohibited use of bait and the retention of king salmon greater than 20 inches and less than 55 inches for the late-run sport fishery during the month of July between river miles 18.7 and 50 (Slikok Creek to Skilak Lake, about 63% of the area open to king salmon fishing). The Department also prohibited retention of king salmon in the personal use fishery on July 24 and prohibited use of bait in the sport fishery on July 25 downstream of river mile 18.7. The commercial set gillnet fishery observed mid-week window closures that were not required on Tuesday, July 26 and Wednesday, August 3. Only the drift gillnet fleet was used during these two closed periods. The commercial set gillnet fishery was also used more conservatively by fishing fewer hours than allowed in the management plan and not fishing through the night. Less than the total amount of E. O. time authorized by the Kenai River Late-Run Sockeye Salmon Management Plan was utilized. The commercial fishing season was closed by emergency order prior to the realization of two consecutive periods with less than 1% of the seasons total harvest and, in the justification for the closure found in E.O. 41 the need to conserve king salmon was clearly articulated.

Now we learn that the escapement goal was achieved, in fact we likely had an escapement of 29,800 fish and that there is only a 4% chance that we did not realize at least 17,800. If this is in fact true then a significant amount of opportunity was lost due to the inability to estimate correctly in-season.

A management plan can be crafted that provides for the sustainability of the stock, acknowledges the uncertainty in assessment and shares the burden of conservation equitably.

*Submitted by Kenai River Sportfishing Association*



**KRSA comments on ADFG memo regarding 2010 and 2011 Kenai River Late-run Chinook run strength estimates.**

**Summary:**

1. In the final analysis, KRSA submits we can comfortably conclude from the weight of the evidence from the various indices that runs during the last three years were among the lowest on record but it remains highly uncertain whether numbers were below, at, or above a specific escapement objective. For instance, given the noise in the indicators, similar values in 2009-2011, and questions regarding the ELSD estimates in 2010 and 2011, it seems difficult to conclude with any degree of confidence that the minimum goal was not met in 2009 but was met in 2010 and 2011.
2. The essential question here is really not whether the goals were met or not met in the last couple years, but rather, given the limitations of the existing assessment tools, how will the available suite of run size indicators be utilized to make management decisions implementing restrictions to the sport, personal use, and commercial fisheries in the next 3-5 year period in the interim until better assessment tools are developed? What criteria or values will be used to trigger additional restrictions? What will those restrictions be? How will restrictions be shared among the various fisheries (given the allocation implications of different actions)? Should these actions be developed on an ad hoc basis by the fishery managers in season or is more specific guidance desired by the Board of Fish? Does the existing management plan give adequate and implementable guidance given current assessment limitations or is additional direction appropriate?

**Observations:**

3. In order to evaluate escapements relative to numbers identified in the management plan, it would be necessary to translate information on relative run strength based on various indicators into target-strength sonar equivalent units upon which the plan objectives and triggers are based.

4. While methods are not documented in the ADFG memo, based on explanations from department staff, it appears that the model-based analysis described in the memo is a reasonable attempt to accomplish this translation within the limitations of the existing information.
5. As with all models, the department's analysis is predicated on a variety of conditions and assumptions related to the model formulation and data inputs. The report of model results did not document these assumptions and conditions.
6. It appears that conclusions of this model analysis are effectively predicated on an assumption or conclusion that: 1) the old sonar numbers are an imprecise but unbiased index of actual abundance on average, and 2) we can reasonably exclude some years (2010) from this analysis based on independent evidence that these data points are in error.
7. Different conditions/assumptions/treatments/data could result in different results and conclusions. A complete assessment of model results would include an evaluation of the sensitivity of estimates to different sets of conditions, assumptions or models. Without this, it is difficult to fully evaluate the estimates and conclusions of the analysis, particularly with regard to the accuracy of specific point estimates relative to goals.
8. Basically the model is saying that the low end of the various indices during 2002-2009 equates to the low end of the TS sonar during that same period, and then uses that relationship to infer the 2010 and 2011 TS number from the other indices. However, if the relationship between TS and the other indices breaks down at low run size, as might be implied by the 2010 TS value which is excluded from the analysis, this extrapolation becomes rather speculative. It is unfortunate that a TS estimate was not made for 2011.
9. We do know for sure that because the model reflects only the uncertainty captured in the model formulation and data incorporated into it, it will underestimate the actual uncertainty in point estimates relative to escapement objectives. This means the actual uncertainty in whether the goals were met may be substantially greater than estimated by the model (12% in 2010 and 4% in 2011).

# North Pacific Fishery Management Council – Board of Fisheries Issue Update



Board of Fisheries Worksession  
October, 2011

Presented by ADF&G Extended Jurisdiction staff:  
Stefanie Moreland & Karla Bush

# Presentation Outline

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- Board proposals that may be of interest to the Council
- Chum salmon bycatch in BSAI pollock fisheries
  - Initial Review in June 2011
- Chinook salmon bycatch in GOA pollock fisheries
  - Final action in June 2011 – implementation targeted for mid-year 2012
- Salmon FMP update
  - Final action scheduled for December 2011
- GOA Tanner crab protection measures
  - Final action taken October 2010 – rulemaking pending
- Bering Sea Tanner Rebuilding
  - Preliminary review February 2012 (T)
- Halibut bycatch caps in the GOA
  - Initial review scheduled for February 2012 (T)

# Alaska Board of Fisheries

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**Agenda Change Requests: to be considered and scheduled at the BOF worksession**  
October 4-5, 2011, Anchorage

ACR 6 - Amend the maximum allowable harvest in Norton Sound red king crab fishery to align with revised harvest rates based on recent population model.

ACR 9 - Increase total allowable catch in the Aleutian Islands golden king crab fishery due to lack of adoption of new stock assessment model by crab plan team.

**Pacific cod for Prince William Sound, Cook Inlet, Kodiak, Chignik, and South Alaska Peninsula Areas**

October 6 – 10, 2011, Anchorage

Reviewed proposals that intersected with federal Pacific cod fisheries management.



# Alaska Board of Fisheries

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## **Southeast and Yakutat Finfish**

February 24 – March 4, 2012, Ketchikan

### Rockfish

212 Increase the sport allocation of demersal shelf rockfish to 25 percent.

## **Statewide Dungeness crab, shrimp, & miscellaneous shellfish**

March 20 – 23, 2012, Anchorage

### Statewide scallop

350 Allow scallop harvest from multiple registration areas when an observer is aboard.

### Prince William Sound scallop

351 Establish new management district subsections for scallop in PWS (ADF&G).

### Westward scallop

352 Open specified waters currently closed in Registration Area M to scallop fishing.

353 Open specified waters currently closed in Registration Area M to scallop fishing.

354 Amend regulatory description for Registration Area J in description of the area, fishing seasons and closed waters (ADF&G).

# Salmon Bycatch in the Pollock Fisheries

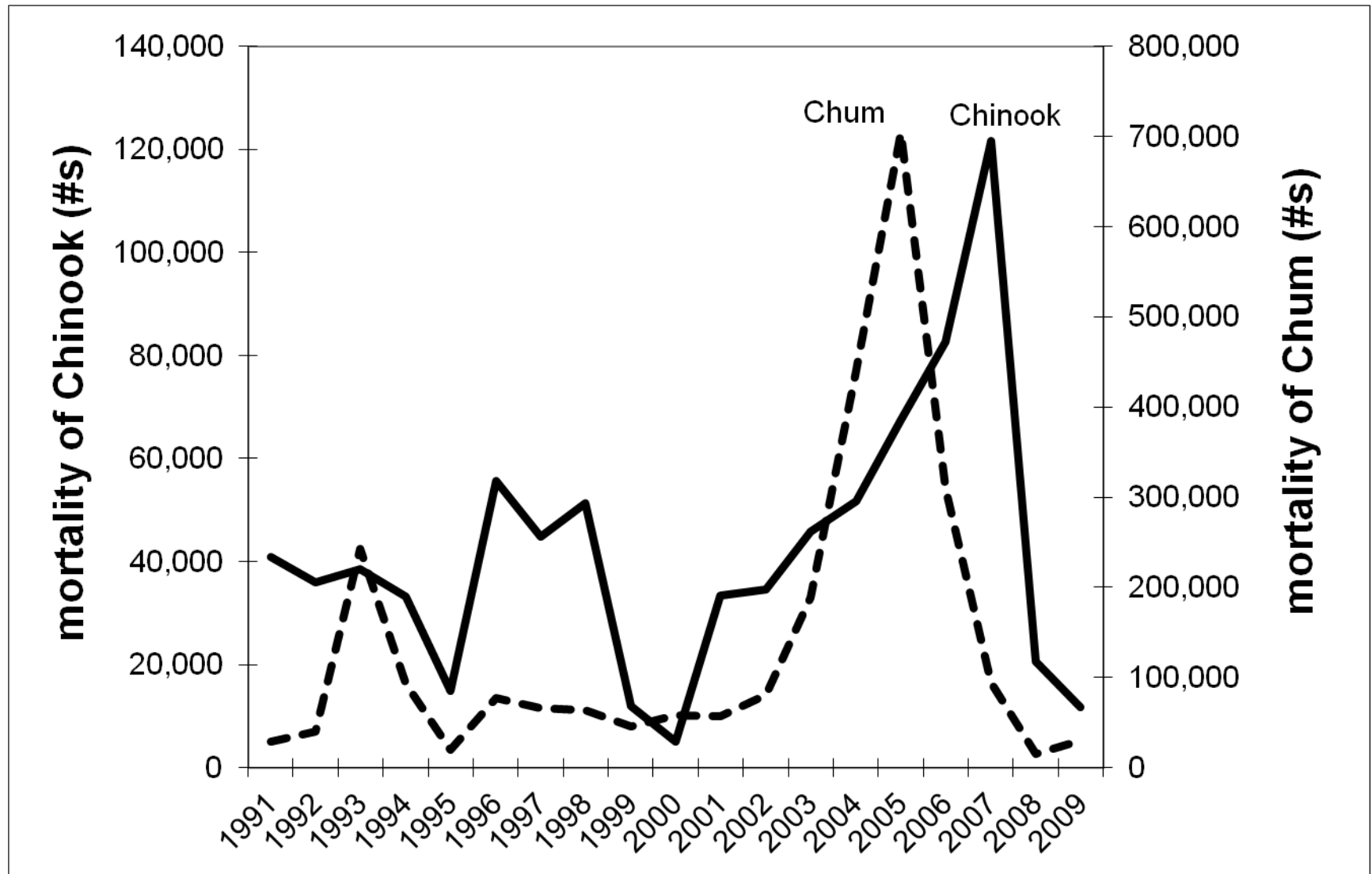
- Pollock fisheries catch salmon as bycatch (primarily Chinook and chum).
- Bycatch, by law, is counted but cannot be retained or sold.
  - BSAI salmon bycatch is counted (full census) salmon.
  - GOA salmon bycatch is estimated from observed trips.
  - Some salmon is donated to food banks.



# BSAI Salmon Bycatch Trends

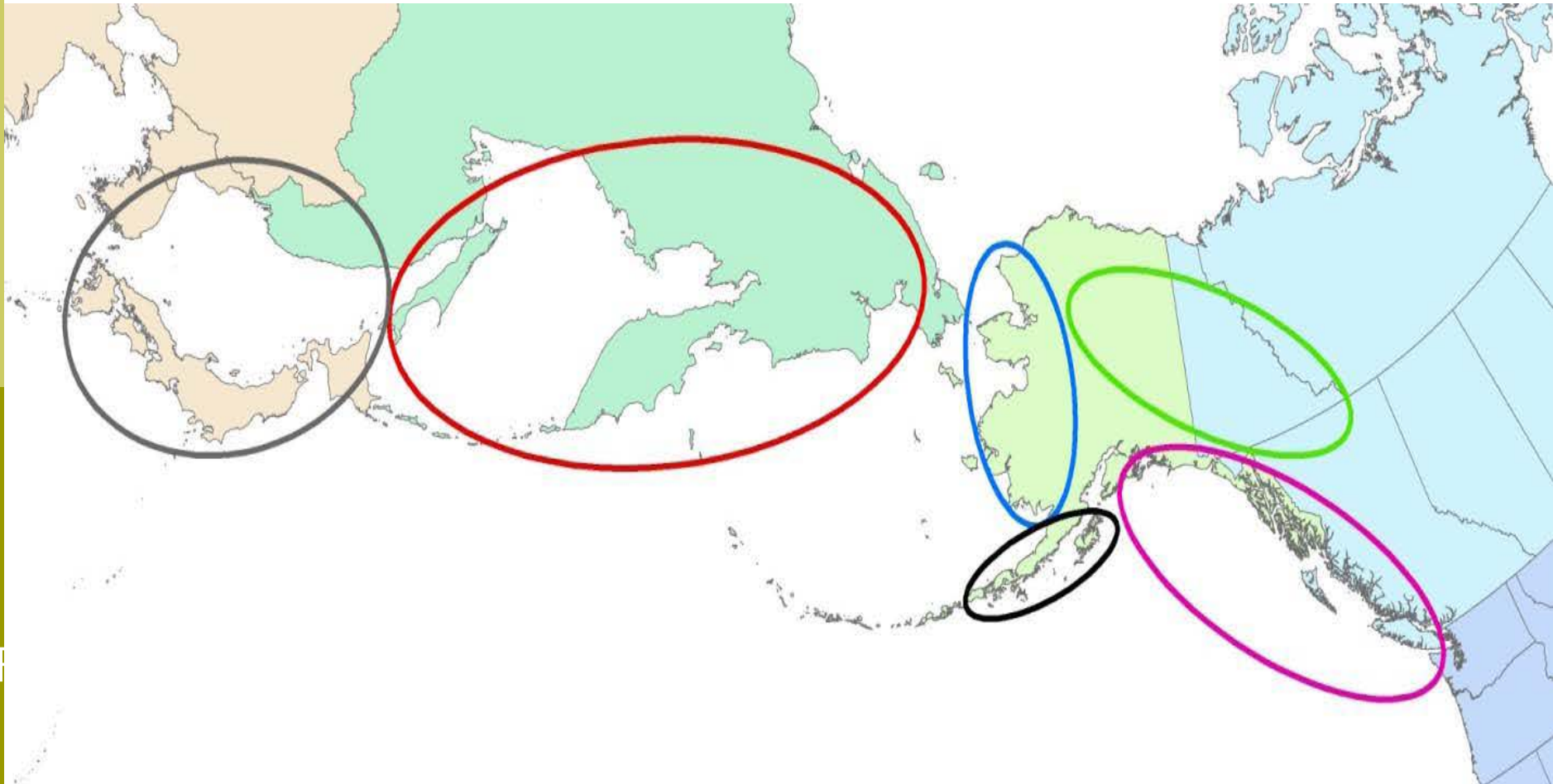
BSAI pollock fishery:

Offshore catcher processors, inshore catcher vessels, motherships, & CDQ vessels



# Chum Salmon Bycatch in the BSAI Pollock Trawl Fishery

- Stock of origin genetics only in aggregate for WAK rivers.



# What Do We Know About BSAI Chum Salmon Bycatch?

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- Higher proportion of Western Alaska chum salmon in the bycatch during June/July.
- Higher proportions of Asian hatchery chum salmon later in the season.
- Analysis estimated impact of bycatch on adult equivalents (AEQ) returning to river groupings.
- Average impact rates 2005-2009:

Coastal West Alaska	0.6% (0.1% - 1.5%)
Upper Yukon	1.2% (0.2% - 2.7%)
Combined WAK	0.7% (0.1% - 1.5%)
Southwest Alaska	0.4% (0.1% - 1.0%)
- Working to improve bycatch sampling and genetic baselines to better understand impacts.

# Chum Salmon Bycatch in the BSAI Pollock Trawl Fishery

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- Chum salmon bycatch management measures:
  - Hard Caps (50,000 – 353,000 chum salmon)
  - Triggered Time and Area Closures
  - Rolling Hotspot Program (RHS)
- Next analysis:
  - Additional option for a June/July hard cap.



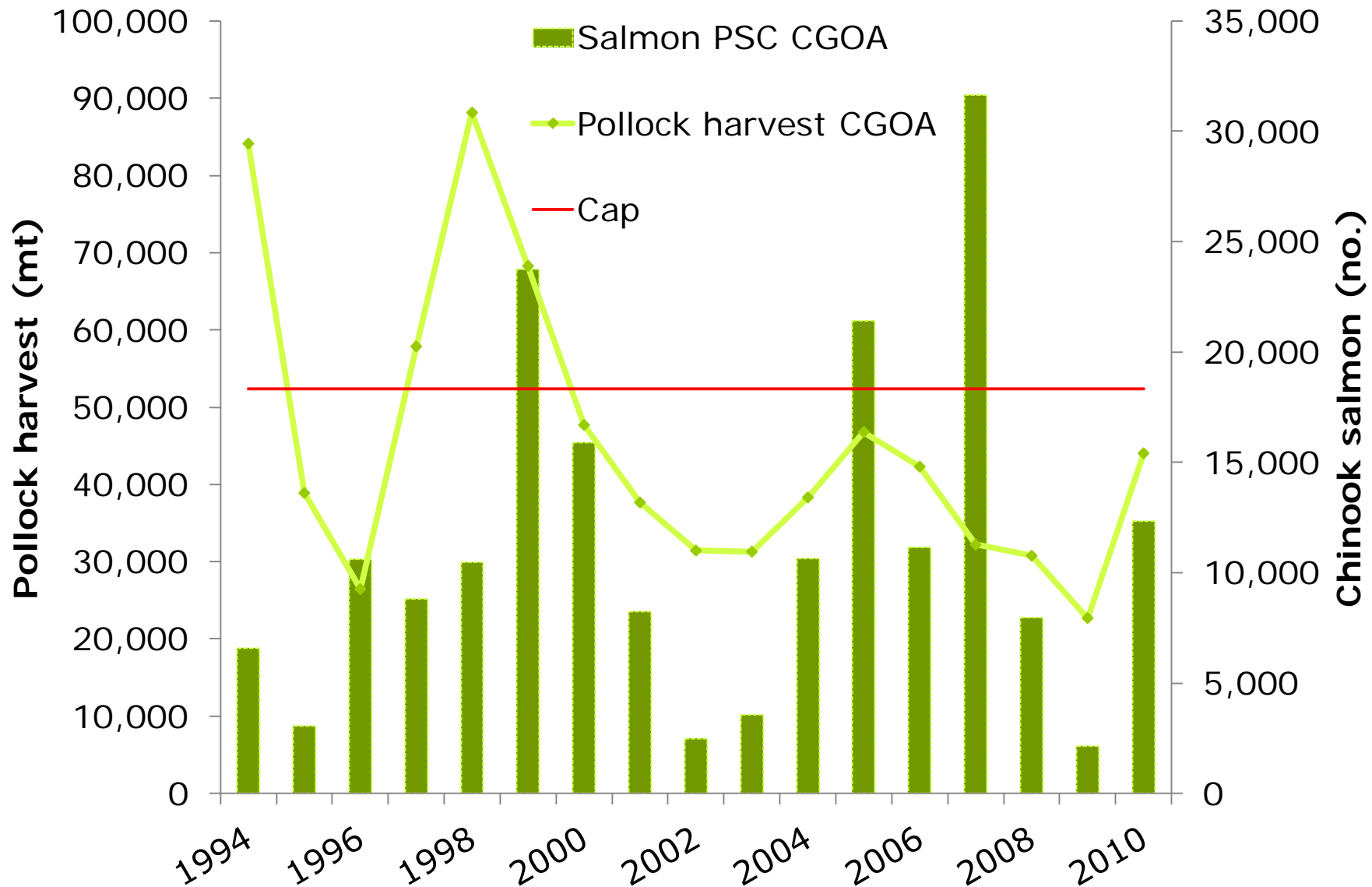
# Chinook Salmon Bycatch in the GOA Pollock Trawl Fishery

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## Final Action in June 2011

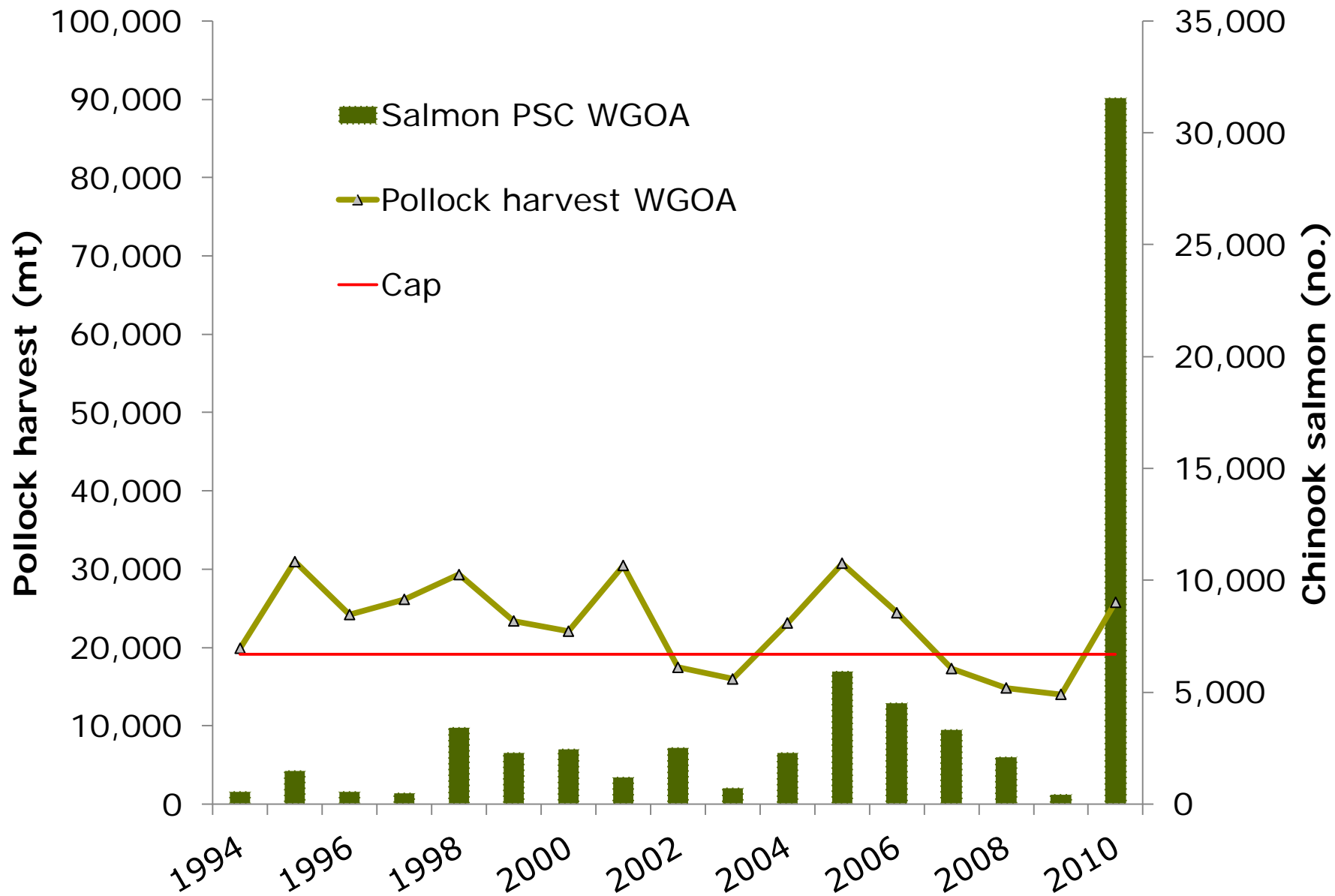
- Prohibited Species Cap (PSC): 25,000 Chinook salmon





# Central Gulf of Alaska





# Western Gulf of Alaska

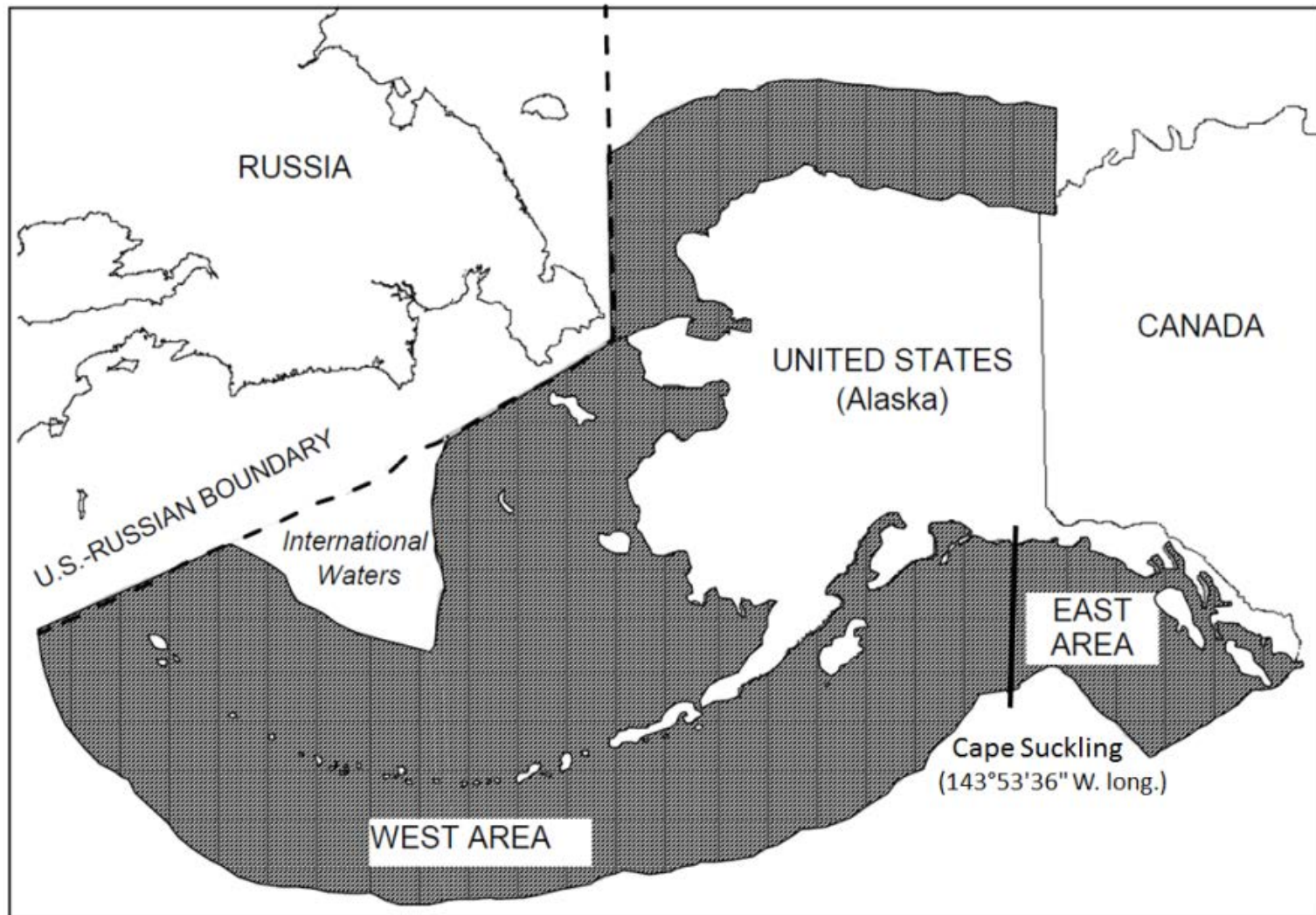
# Chinook Salmon Bycatch in the GOA Pollock Trawl Fishery

## Final Action in June 2011

- Prohibited Species Cap (PSC):  
25,000 Chinook salmon
  - Western GOA:  
18,316 Chinook salmon
  - Central GOA:  
6,684 Chinook salmon
  - Observer coverage for  
<60' vessels (30%)
- Full retention
- Implementation anticipated  
in mid-2012



# Salmon FMP update



# Salmon FMP update

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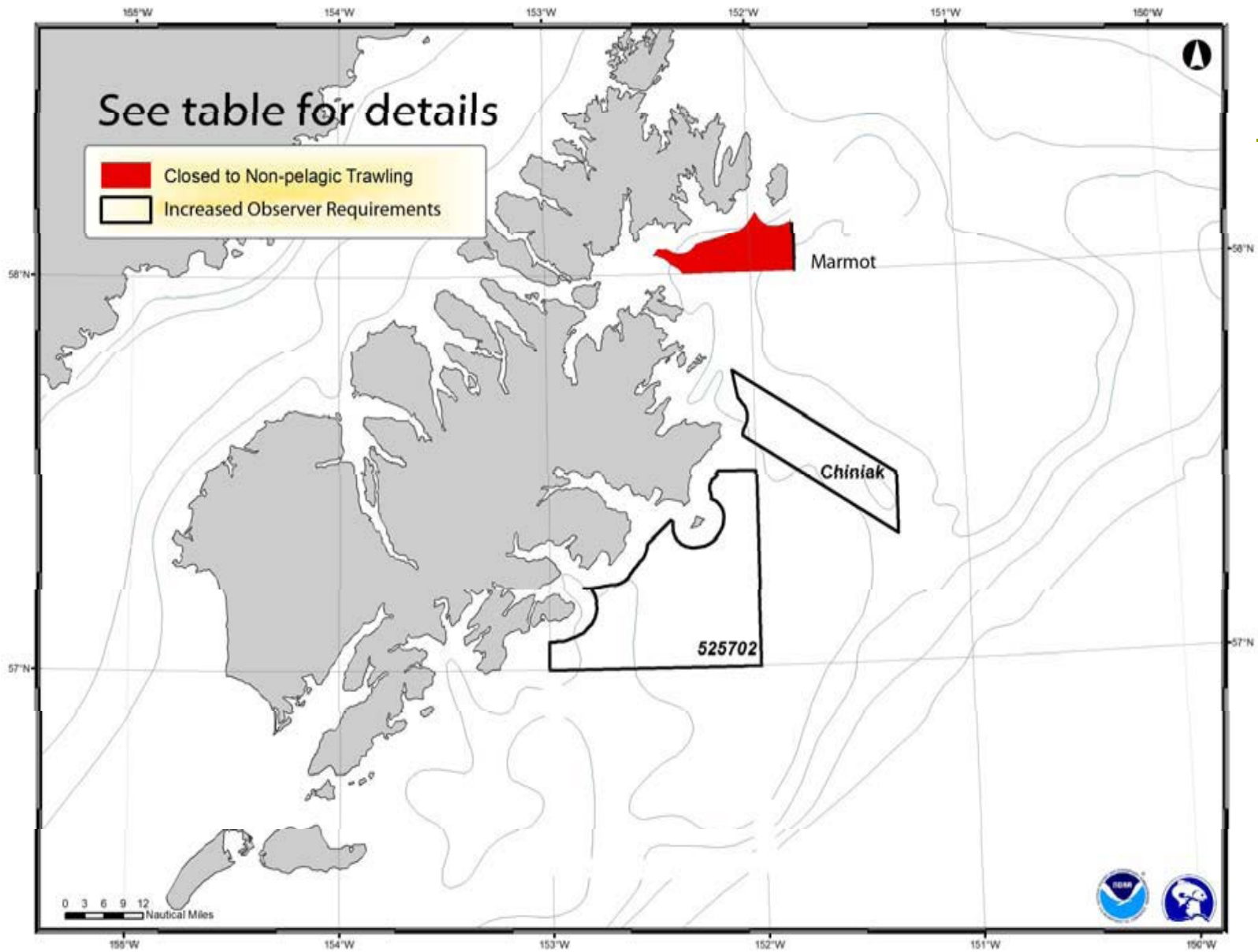
- Final Action Scheduled for December 2011
  - Preliminary Preferred Alternative
    - Closely reflect status-quo
    - Removes three traditional commercial salmon net fisheries, allowing for current state management.
      - PWS
      - Cook Inlet
      - Alaska Peninsula
    - Closes remaining federal waters in the west to commercial salmon fishing.
    - Removes the sport fishery in the west.
    - Retains SE Alaska commercial salmon troll fishery and SE Alaska sport fishery that occur in federal waters under deferred management authority.
    - For SE Alaska, updates the FMP to fully comply with current MSA provisions and other federal requirements.

# GOA Tanner Crab Bycatch

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- Three area closures
  - Marmot Bay
  - Chiniak Gully
  - ADF&G statistical area 525702





# Bering Sea Tanner Crab Rebuilding

- Declared overfished in 2010.
- Rebuilding plan must be implemented prior to 2012/13 fishing season.
  - Tanner crab model is under development.
  - Rebuilding alternatives may impact the directed Tanner and snow crab fisheries.
  - Board/Council coordination anticipated.



# Halibut Bycatch Caps in GOA

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- Initial review tentatively scheduled for February 2012.
- Groundfish FMP amendment to change how PSC limits are established.
- Alternatives include 5%, 10%, or 15% reduction in halibut PSC limits for trawl and longline groundfish fisheries.
- Current PSC limits are 2,000 mt for trawl (1989) and 300 mt for longline (1995).



# More?

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- October newsletter with revised 3-meeting outlook attached will be online next week: [www.fakr.noaa.gov/npfmc/](http://www.fakr.noaa.gov/npfmc/)
- Upon request, more in-depth presentations from Council staff can be provided.

Questions?



# Stock of Origin for GOA Chinook

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- Very limited information
- Sampling underway
- Preliminary information from CWT
  - hatchery runs from PNW, Canada, AK
- Recovery studies around Kodiak in 1990s
  - Hatchery produced Chinook 16-34% of commercial salmon catch (mostly BC)
  - Also PNW salmon
  - Low incidence of Cook Inlet Chinook

October 5, 2011

RC17

Alaska Board of Fisheries  
Board Support Section  
Alaska Department of Fish and Game  
P.O. Box 115526  
Juneau, Alaska 99811-5526

Chairman Johnstone,

As of July 23, 2011 the spawning escapement was met. ELSD-based sonar count thru 7/23 (25,744) minus total Creel Sport Harvest above sonar thru 7/24 (5,117); estimated the spawning escapement at that time to be 20,627 kings, well above the min. SEG range of 17,800..

ELSD daily sonar counts: as of July 25, 2011 was 28,270 minus Sport Harvest totals thru 7/31 from Creel Sport Harvest (6,458) estimated 21,812 spawning escapement

As of July 31 the estimate was 25,245 kings as the spawning escapement.

As of Aug. 6th estimated escapement was 33,840 (ELSD), minus total Sport Harvest thru 7/31 (6,458) for an estimated 27,382 spawning late-run escapement.

Note: 6,458 included harvest below sonar and above; the Creel harvest numbers above sonar was 6,000 fish 7/1 - 7/31.

The "saved" kings thru catch and release from 7/26 to 7/31 (395 kings).

EO 41 justification states that "all indices" used to estimate spawning escapement indicate the goal would not be met without closing the ESSN fishery. ELSD cumulative estimate was 1 or the 5 indices. The ELSD-based counts during 2011 was the average inriver run range for 2002-2011 ELSD-based counts; it was the mean average inriver run over the last 10 years. The ELSD-based sonar count was the primary index used. However, EO 41 negated the ELSD-based sonar estimate for estimating spawning escapements even though ELSD was presented at the 2011 BOF meeting by oral presentations from the department (D. Burwen, Robert Begich) that said Echo Length Standard Deviation will be used for sonar assessment and estimating spawning escapements.

Restrictions placed on ESSN fisheries after July 23rd were groundless. ADF&G Sport Fish Division, Memo dated Sept. 27th from Tim McKinley to Jack Erickson stated the spawning escapement for 2011 was 29,800 late-run kings. The TS-based estimate for late-run kings passing the sonar station was 36,000. The ELSD-based estimate for late-run kings passing the sonar station estimate was 35,583, and when corrected for sport harvest above the sonar station along with catch and release mortalities 29,363 king spawning escapement. The difference from cumulative ELSD-based spawning escapement and cumulative TS-based spawning escapement is only 447 fish. Two months after the late-run chinook fishery was closed by regulation Sport Fish Division provides the official spawning escapement for 2010 and 2011. Incredible.

From July 23rd until closed by emergency order 41 on Aug. 7th well over 250,000 Kenai late-run sockeye were sent past the ESSN fishery which placed a quarter of a million sockeye above the upper goal range during the July 23 - July 31 timeframe, the same time when Commercial Fisheries Division knew large numbers of Kenai-bound sockeye were running along the beaches but held back on the use of hours allowed. In addition to restrictions placed on the ESSN fishery (84 hours of EO allowed per week on runs above 4 million but 44 hours weren't used) the additional consequence on the reallocation of sockeye to drift fishery that would have been

available along the east-side under normal management practices (Drift fleet opened 7 days a week).

The ESSN fishery economic loss on surplus sockeye that should have been made available can be estimated well above 7.5 million dollars in lost benefit. Individually, each ESSN and Upper Cook Inlet fisherman will be harmed further from lost yields due to exceeding the SEG goal range, risking future yield on this major salmon stock. The Processing Industry lost 4 million dollars from the loss of revenue from non-harvested sockeye that should have occurred along the East-side in 2011.

**Note:**

Those who don't consider over escapement to be a risk on the state economy or to fisheries or to the fishing communities dependant on those fishery resources to be maintained, instead of lost yields that can and have occurred in the past - perhaps those same like-minded individuals could argue and convince the State Treasurer to put 50 million dollars into a grade D junk bonds that have a 40 percent chance on getting 25 million dollars back in 5 years and without interest.

Thank you,

Gary Hollier

October 5, 2011

Alaska Board of Fisheries  
Board Support Section  
Alaska Department of Fish and Game  
P.O. Box 115526  
Juneau, Alaska 99811-5526

Dear Commissioner and Directors

I am a commercial salmon set net fisherman in Cook Inlet. I fish on North Kalifonsky Beach, south of the Kenai River. This past summer's sockeye run to the Kenai River ranked as one of the best in past history. As set netters in Cook Inlet, we go through many mediocre seasons to get to a season with as much "earning potential" as in 2011. Due to a poor perceived run of late-run King Salmon to the Kenai River, the E.O. fishing hours that should have been granted to the ESSN fishery, were limited. On runs over 4.6 million to the Kenai River, 84 additional hours per week could have been issued. The primary mandate from the BOF is to achieve the prescribed goals. This past season the sockeye goal was exceeded by almost 250,000 fish. On an average the ESSN fishery was not granted almost 40 extra hours of fishing time per week, as should have been allowed in the management plan. The reason for this was a conservation concern for the Late-run Kenai King Salmon.

On 9/27/2011 ADF&G Sport Division issued a memorandum stating that the actual in river spawning escapement of Late-Run Kenai River King Salmon was 29,800. This number was finally generated six weeks after the close of the season. It is mind numbing. The goal is 17,800 to 35,500. The goal was met handily. By the Departments inability to forecast in-season, cost our fishery millions. On a personal level, because this now is very personal, my fishing operation I figure would have conservatively harvested 100,000 pounds more of red salmon. Somebody should be held accountable for this incompetence. Obviously the opportunity in 2011 is lost. With a fairly similar forecast for the 2012 season, I would hope that another nightmare of this magnitude will not occur.

The BOF last spring spent two weeks, not to mention a year of preparation, at a grueling BOF meeting that was heavily biased and prejudicial against the commercial fisherman in Cook Inlet. The same group that has continually attacked our fishery is now asking the BOF through ACR 8 to reopen this discussion because of conservation concerns for the Kenai River King Salmon. I would hope that ADF&G in comments to the BOF next week, at its meeting in Anchorage, will stand by the above mentioned memo and reiterate that the spawning escapement goal of Kenai River King Salmon was achieved. It fact it was above the mid-point of its range, hardly a conservation issue.

The 29,800 final spawning numbers was calculated by 5 indices, which provided sufficient information to predict this TS-based abundance estimate. With this information in the 9/27/2011 memo, I would formally request information from ADF&G which would give me the daily TS estimates from July 1, 2011 till the date the counting stopped.

Thank you,  
Gary Hollier