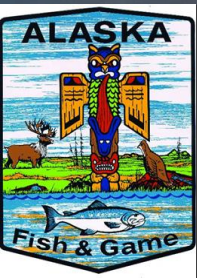


# Lynn Canal (District 15) Drift Gillnet Fishery

## 2021 Postseason Summary

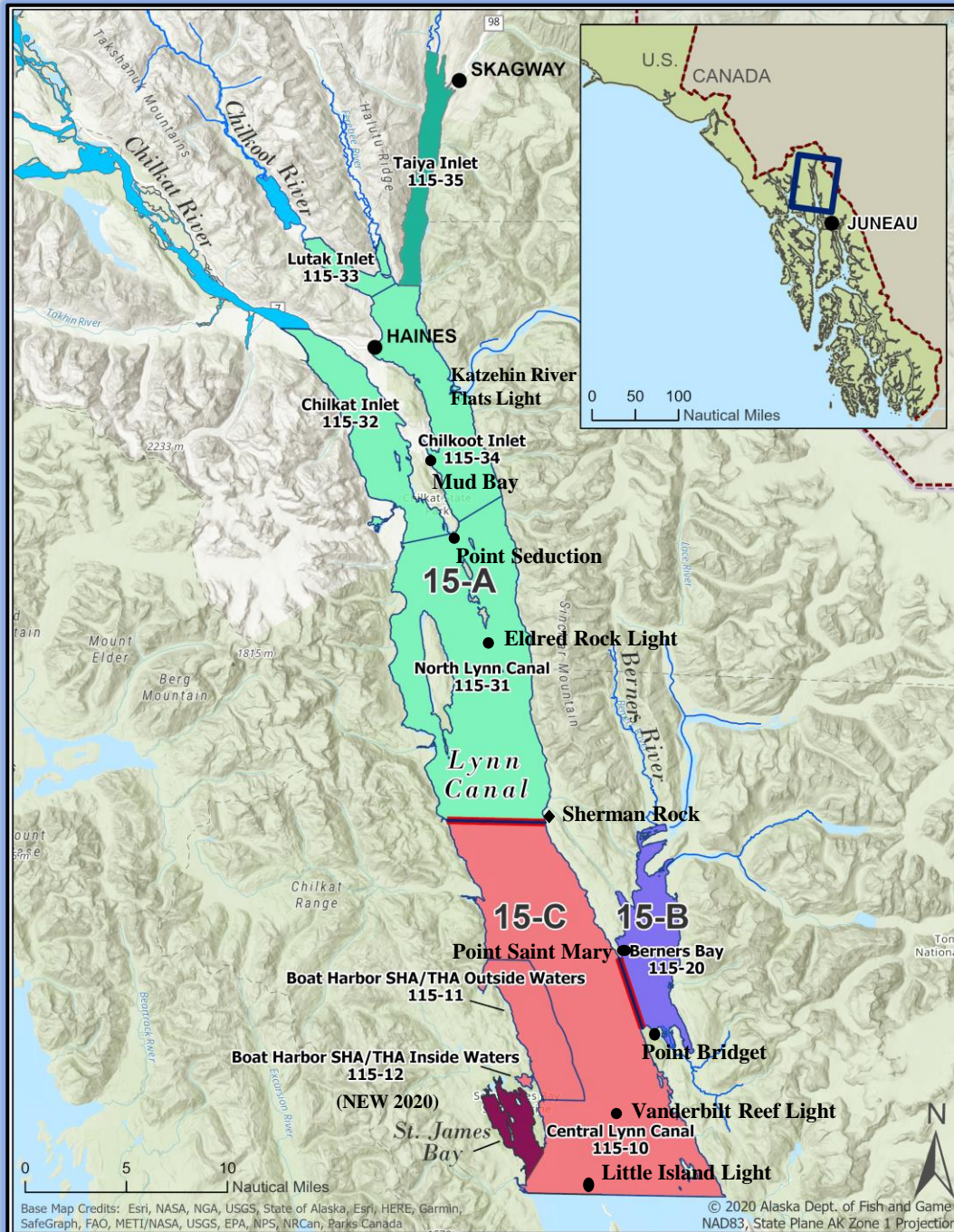


**Nicole Zeiser**

**Gillnet Task Force Meeting**

**December 1, 2021**

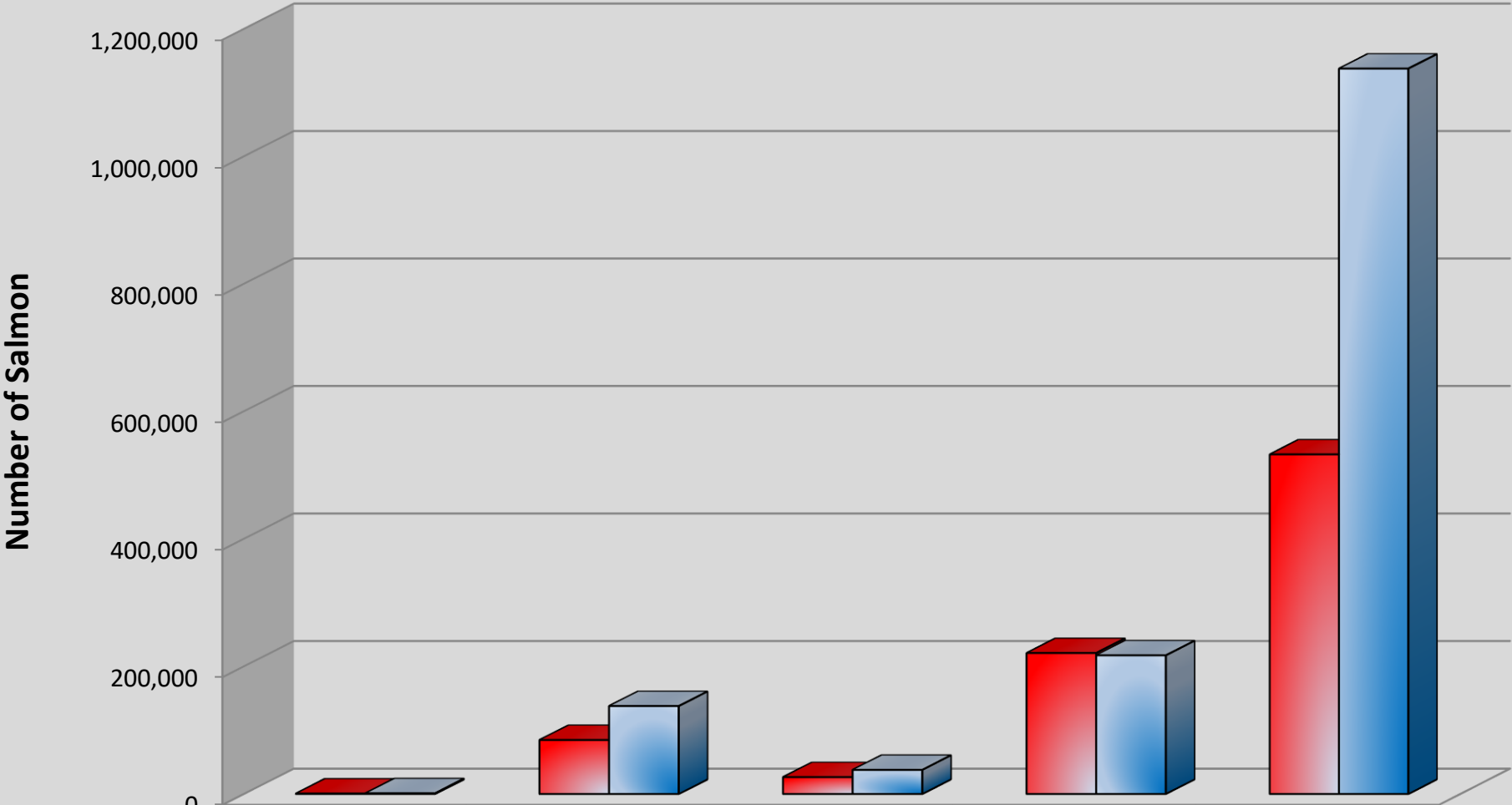
# Lynn Canal District 15 Sections and Statistical Boundaries



Base Map Credits: Esri, NASA, NGA, USGS, State of Alaska, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, NRCAN, Parks Canada

© 2020 Alaska Dept. of Fish and Game  
NAD83, State Plane AK Zone 1 Projection

# 2021 District 15 Gillnet Harvest and 10-year Average



	<b>Chinook</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>
<b>2021</b>	<b>710</b>	<b>84,649</b>	<b>26,426</b>	<b>221,012</b>	<b>532,443</b>
<b>10-year average</b>	<b>1,182</b>	<b>137,880</b>	<b>37,810</b>	<b>217,408</b>	<b>1,137,744</b>

## 2021 District 15 Drift Gillnet Time, Effort and Harvest

		Days Open			Districtwide						
		State Managed		Boat Harbor THA <sup>a</sup>	Boats	Boat Days	Chinook	Sockeye	Coho	Pink	Chum
	Stat Week	15A	15C	Outside waters							
Sockeye Management	26	2	2	2	60	120	253	590	6	396	11,631
	27	2	2	2	105	210	64	1,399	8	1266	76,245
	28	2	2	3	121	363	112	4,414	270	14,066	185,283
	29	2	2	3	145	435	102	3,397	483	23,190	127,107
	30	2	2	3	105	315	65	4,854	277	23,593	62,273
	31	3	3	7	91	637	44	9,569	428	48,955	48,178
	32	4	2	7	94	658	41	18,116	259	41,983	9,919
	33	5	Closed	7	27	189	1	6,110	16	8,471	1,806
	34	5	Closed	Closed	36	180	2	7,033	11	28,000	113
Fall Management	35	5	3	Closed <sup>c</sup>	35	175	8	15,498	766	18,091	257
	36	5	3	3	38	190	6	9,568	2,261	10,020	355
	37	5	3	3	48	240	5	3843	6,263	2979	2,663
	38	5	3	3	55	275	5	229	11,324	2	4,286
	39	3	3	3	43	129	2	20	2,949	0	1,509
	40	3	3	3	15	45	0	7	807	0	633
	41	3	3	3	11	33	0	2	298	0	185
	42	Season Closed									
<b>Fishery Total</b>		<b>56</b>	<b>36</b>	<b>34</b>	<b>166</b>	<b>4,194</b>	<b>710</b>	<b>84,649</b>	<b>26,426</b>	<b>221,012</b>	<b>532,443</b>
<b>2011-2020 Average<sup>b</sup></b>		51	44	N/A	226	11,602	1,182	137,880	37,810	217,408	1,137,744
<b>2021 % Average</b>		110%	82%		73%	36%	60%	61%	70%	102%	47%

<sup>a</sup> Inside waters of Boat Harbor THA open 7 days a week from SW 26-37

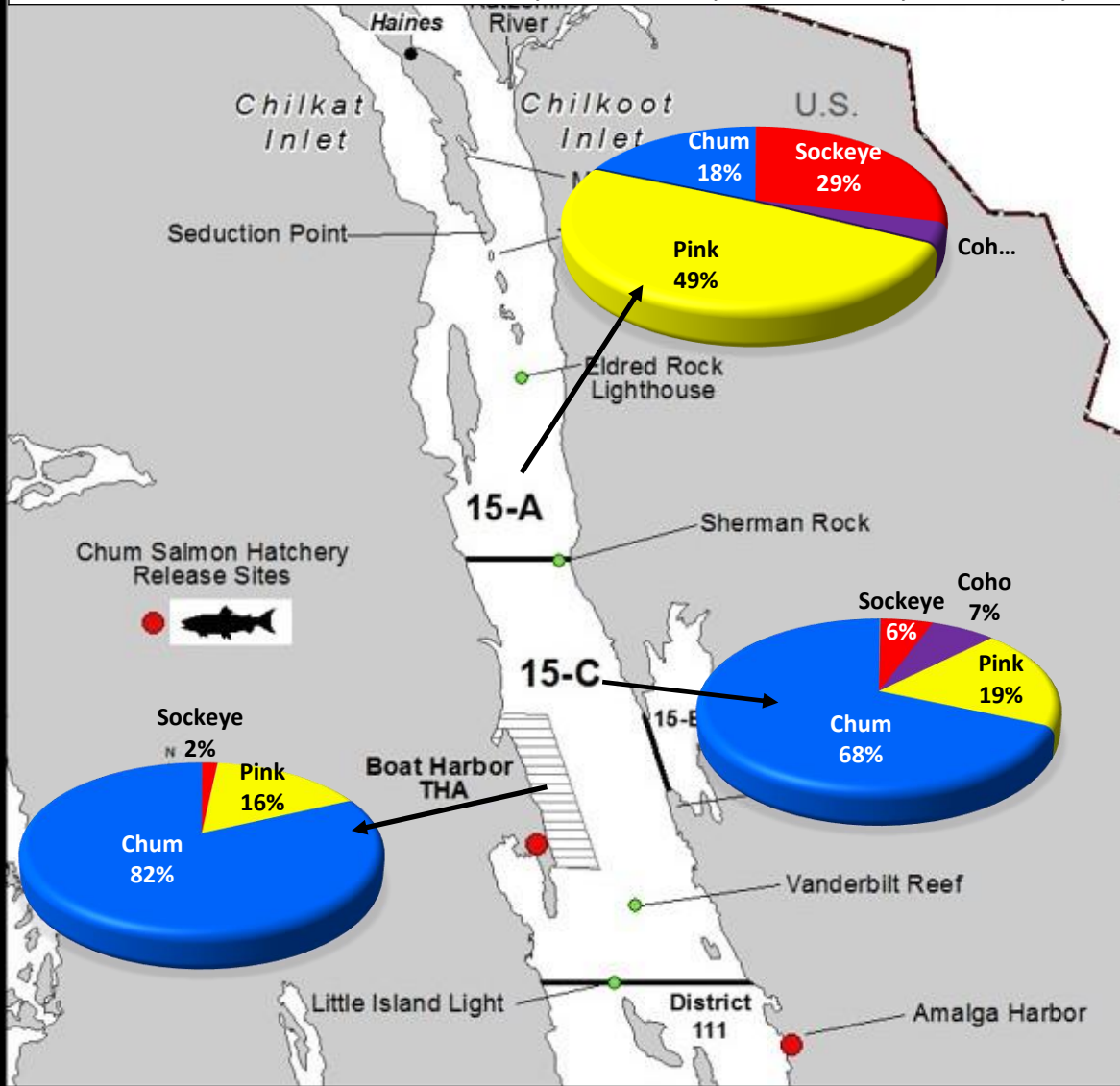
<sup>b</sup> All averages from SW 26-41

<sup>c</sup> Outside waters of the BHTHA managed in conjunction with Section 15-C as traditional fishery from SW 35-41.



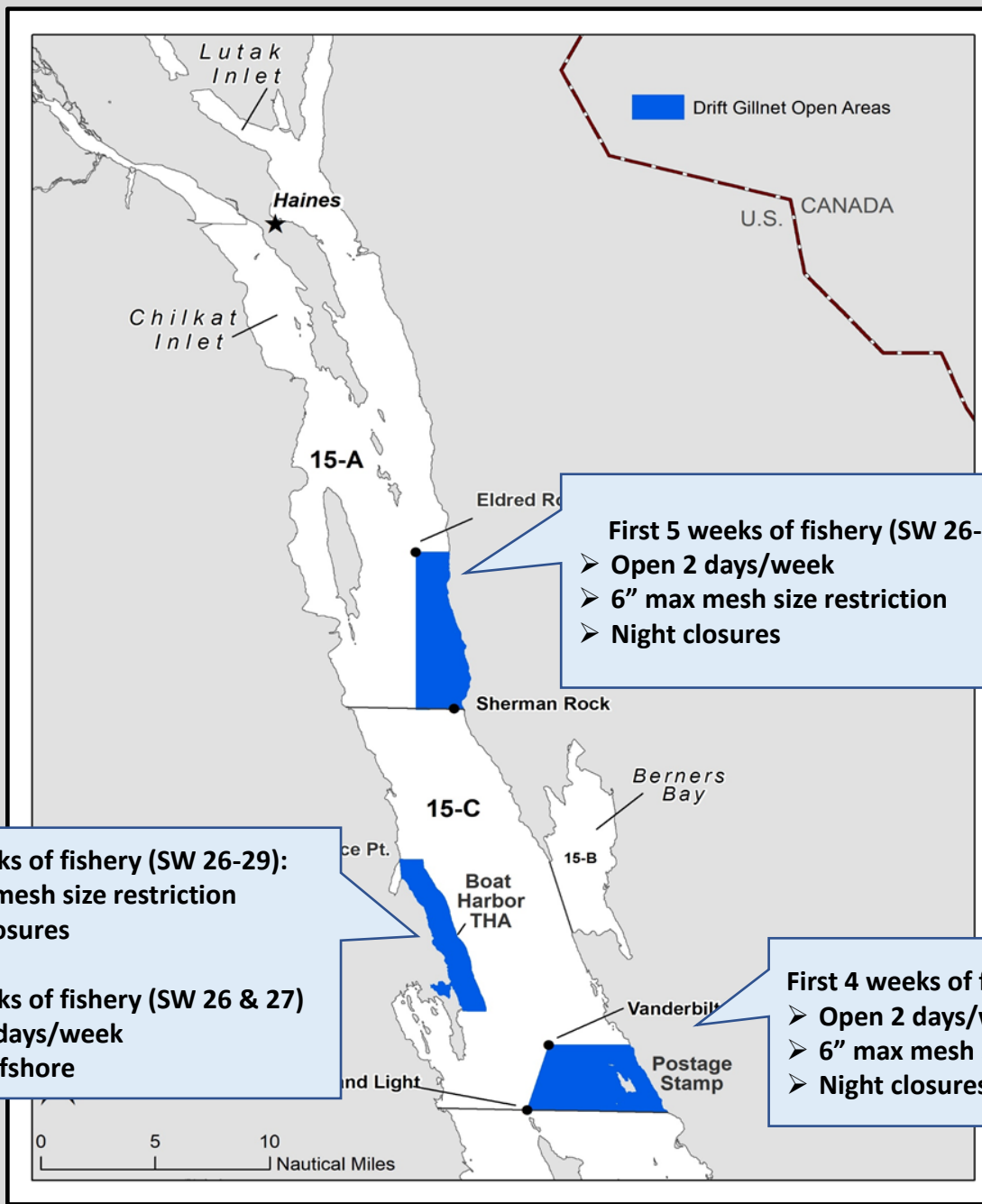
# 2021 Proportion of Harvest by Species and Area

	Chinook	Sockeye	Coho	Pink	Chum
Section 15-A	79	63,931	7,892	108,763	40,877
Section 15-C	478	14,680	18,220	50,885	182,836
Boat Harbor THA	153	6,038	314	61,364	308,730
<b>Total Harvest</b>	<b>710</b>	<b>84,649</b>	<b>26,426</b>	<b>221,012</b>	<b>532,443</b>



# 2021 District 15 Chilkat River Chinook Salmon Conservation Measures

As directed by the 2018 BOF Action Plan...



**First 5 weeks of fishery (SW 26-30):**

- Open 2 days/week
- 6" max mesh size restriction
- Night closures

**First 4 weeks of fishery (SW 26-29):**

- 6" max mesh size restriction
- Night closures

**First 2 weeks of fishery (SW 26 & 27)**

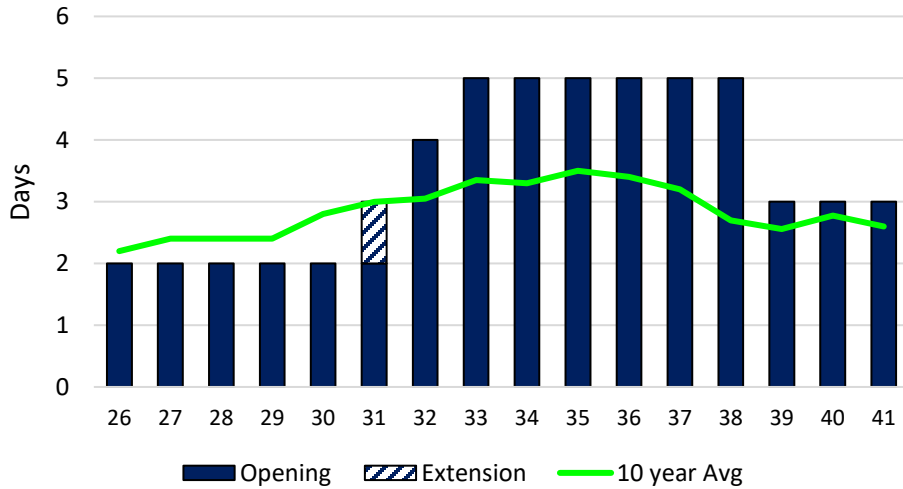
- Open 2 days/week
- 1 nmi offshore

**First 4 weeks of fishery (SW 26-29):**

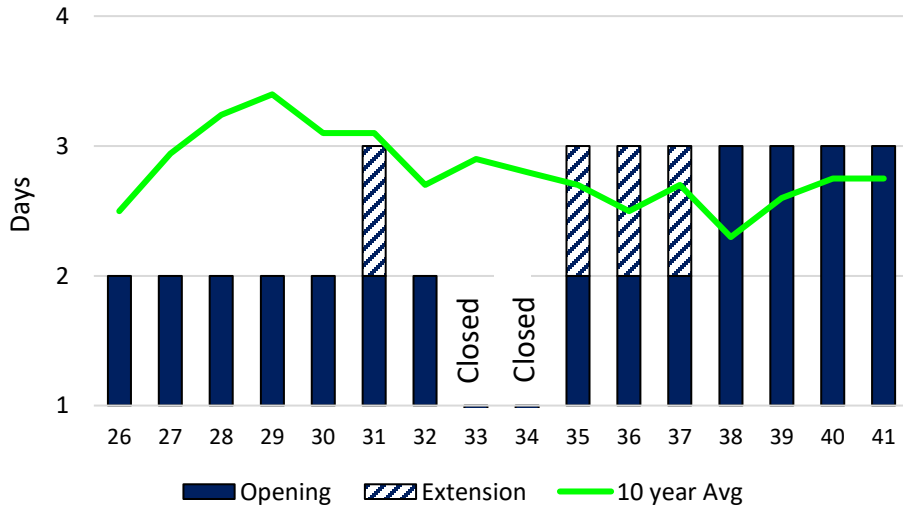
- Open 2 days/week
- 6" max mesh size restriction
- Night closures

# 2021 District 15 Weekly Gillnet Fishing Periods

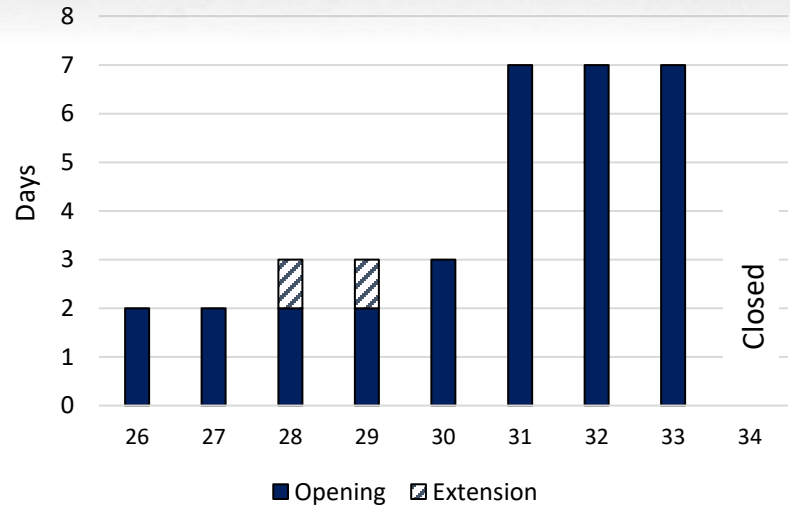
## Section 15-A



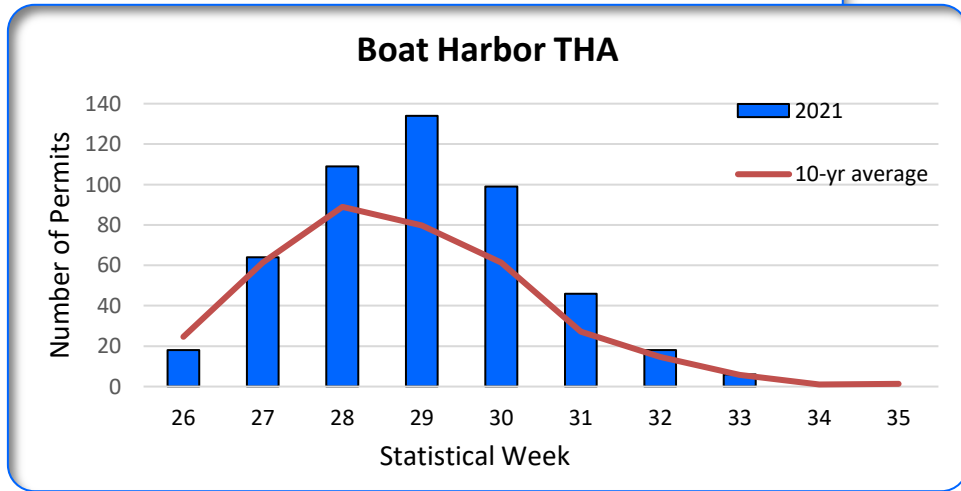
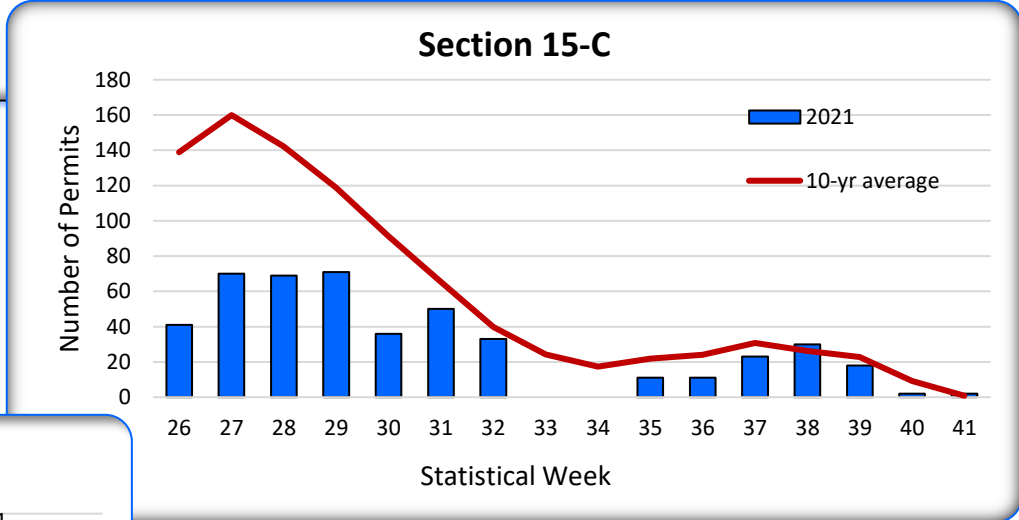
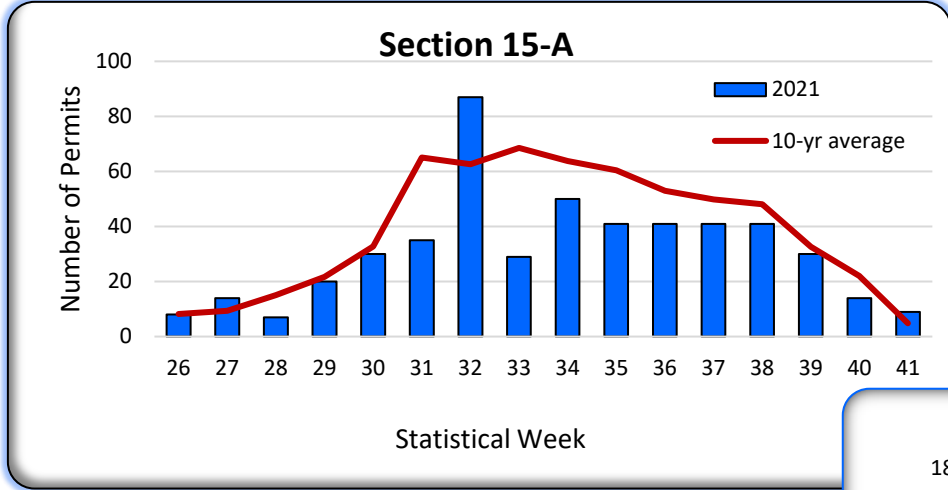
## Section 15-C



## Boat Harbor THA (Outside Waters)

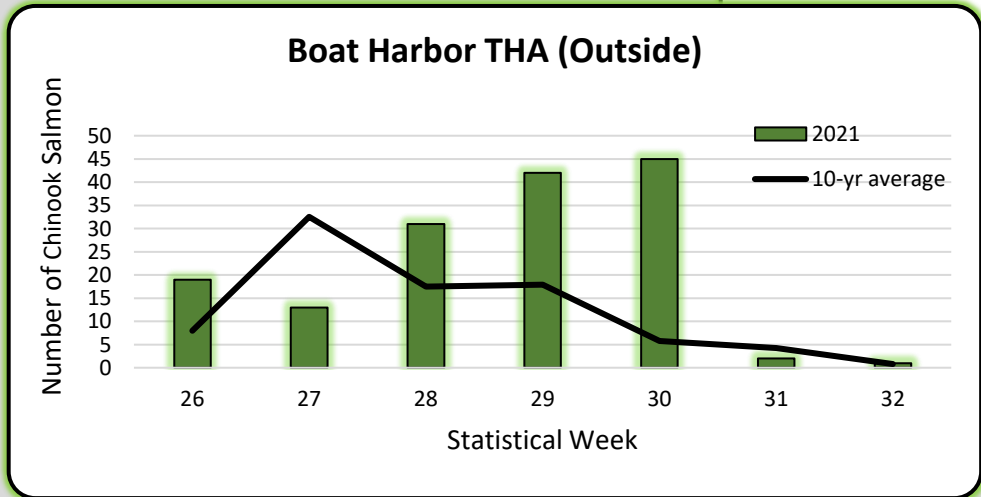
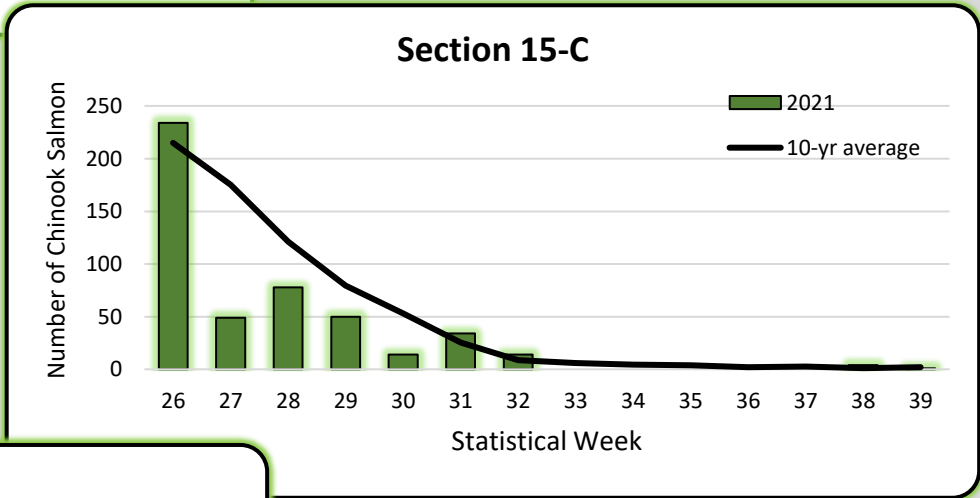
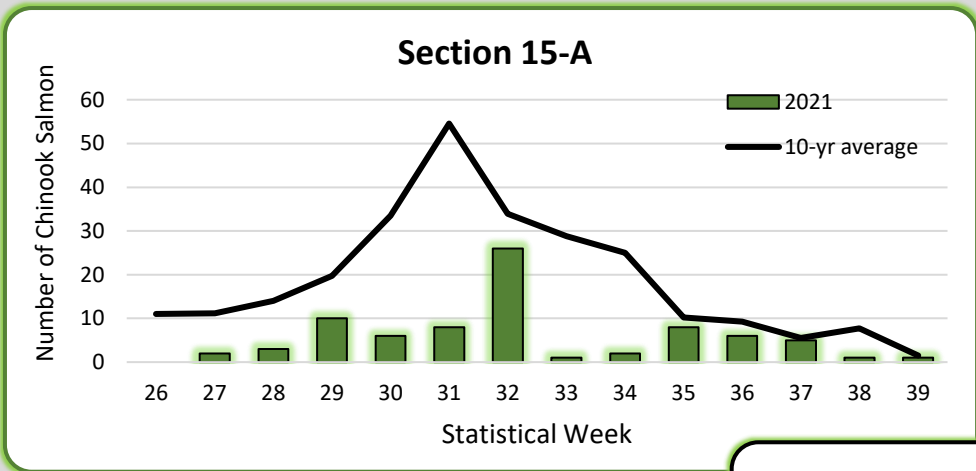


# 2021 District 15 Weekly Gillnet Fishing Effort





# 2021 District 15 Weekly Gillnet Chinook Salmon Harvest



# 2021 District 15 Gillnet GSI-Estimated Chinook Salmon Harvest By Stock Composition



District	Stat Week	Harvest	Sampled	Analyzed
115	26	253	175	158
	27	64	37	36
	28	112	39	35
	29	102	34	32
	30	65	34	31
	31	44	6	4
	32	41	13	10
	Total	681	338	306

Stratified stock composition estimate for SW26–32

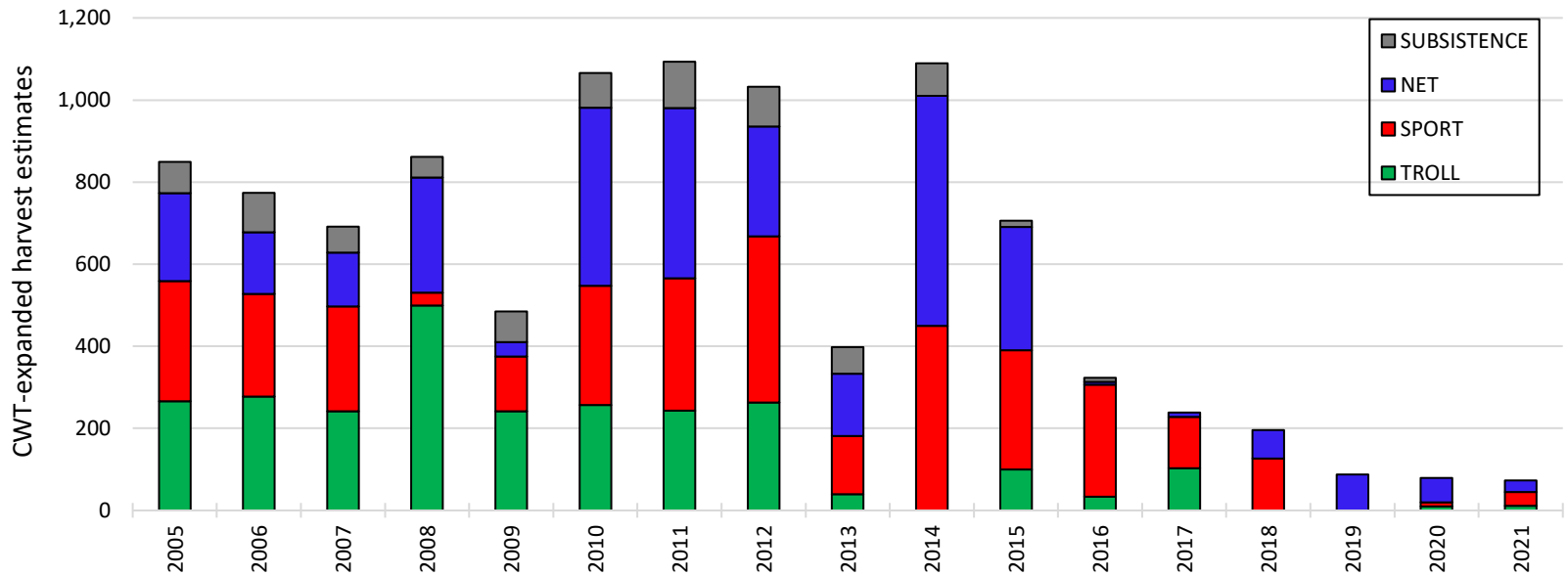
District	group	mean	sd	5%	95%
115	Andrew	78.8%	2.6%	74.4%	82.9%
	Taku	11.0%	1.9%	8.1%	14.2%
	Chilkat	4.2%	1.2%	2.3%	6.4%

Stock composition applied to harvest for SW26-32

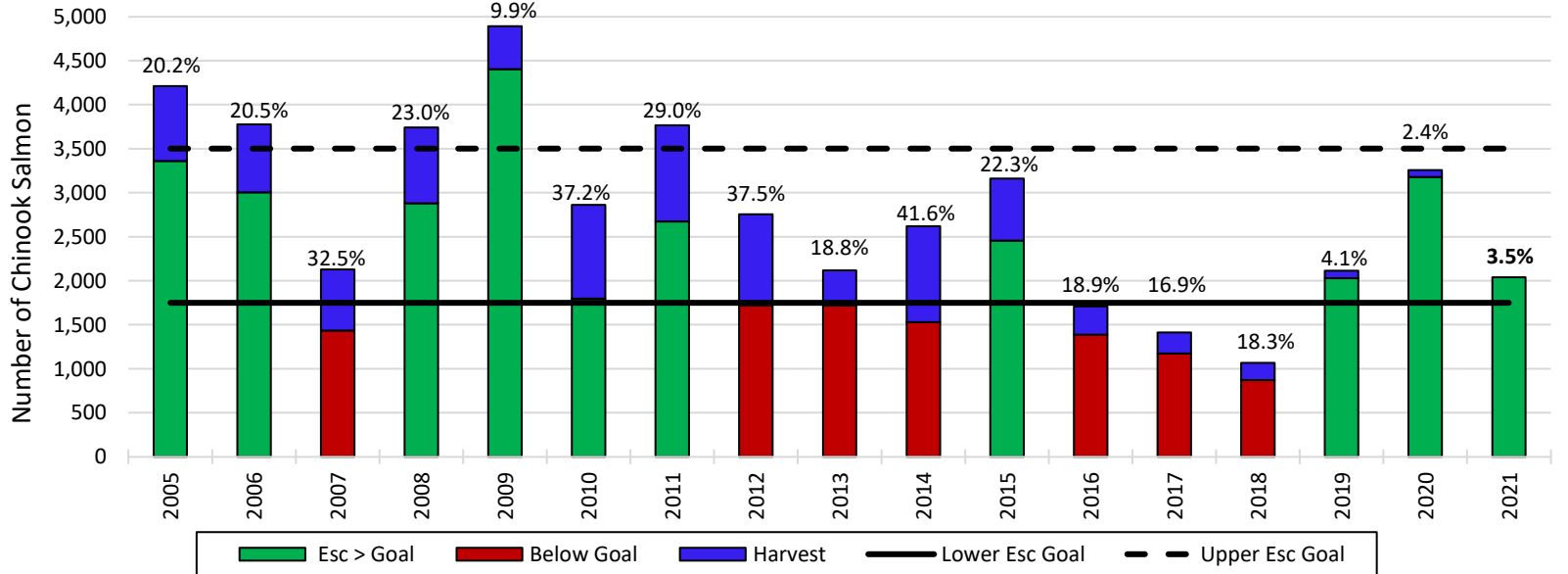
District	group	mean	sd	5%	95%
115	Andrew	537	18	506	565
	Taku	75	13	55	97
	Chilkat	28	8	16	44

- 681 Chinook salmon harvested in the D15 gillnet fishery
- ~4% were Chilkat-origin.
- This converts to 28 Chilkat River Chinook salmon!

### Chilkat River Chinook Salmon Marine Harvest by Fishery, 2005–2021



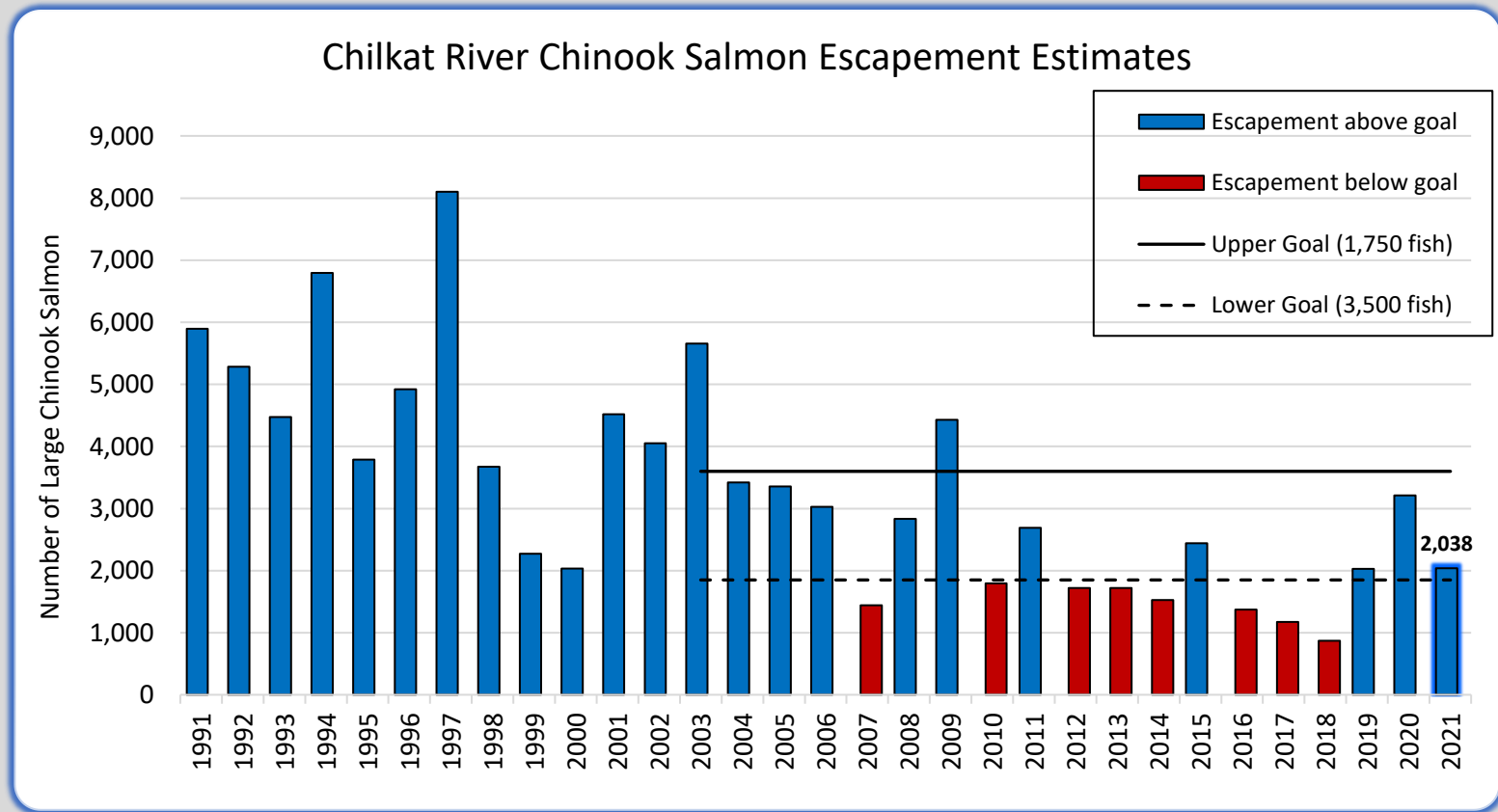
### Chilkat River Chinook Escapement, Harvest, and Total Run, 2005–2021



*Note:* Percentages are harvest rates for Chilkat River Chinook Salmon

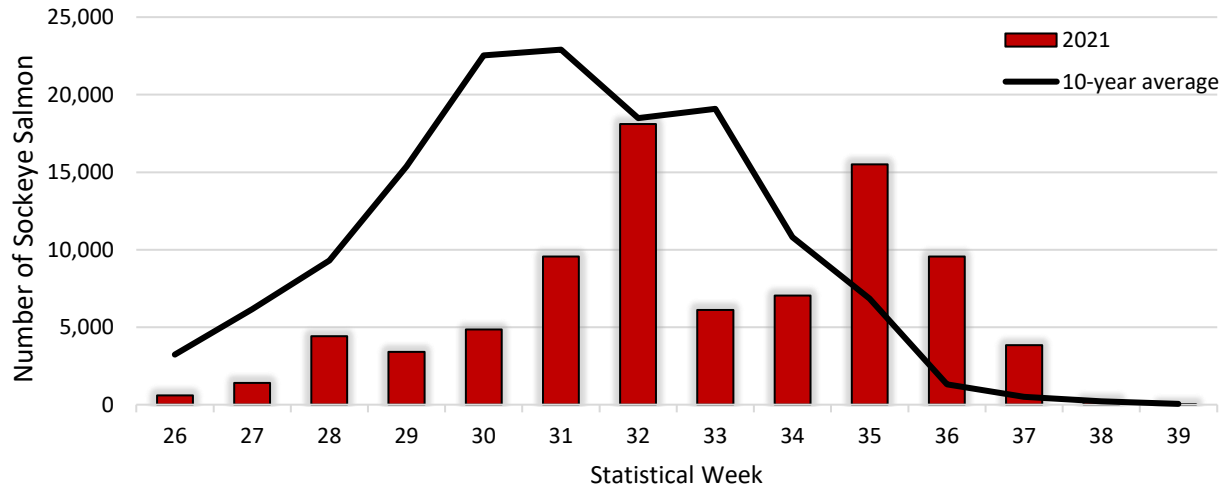
# Chilkat River Chinook Salmon Escapement

- 2021 Preseason total run forecast: 1,500 large (1.3 and older) fish
- Postseason final escapement estimate: **2,038** Chinook salmon
- Within escapement goal range of 1,750–3,500 large fish

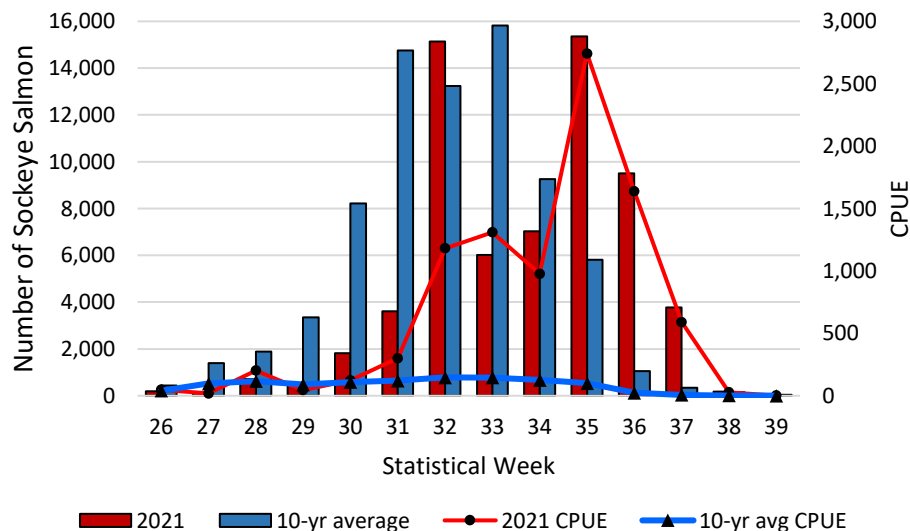


# District 15 Weekly Sockeye Salmon Harvest

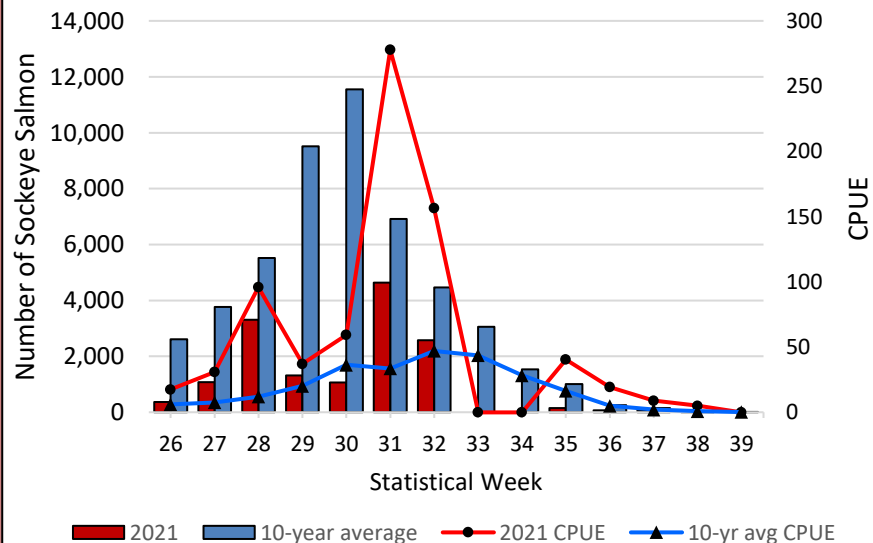
## District 15 Harvest



## Section 15-A Harvest and CPUE

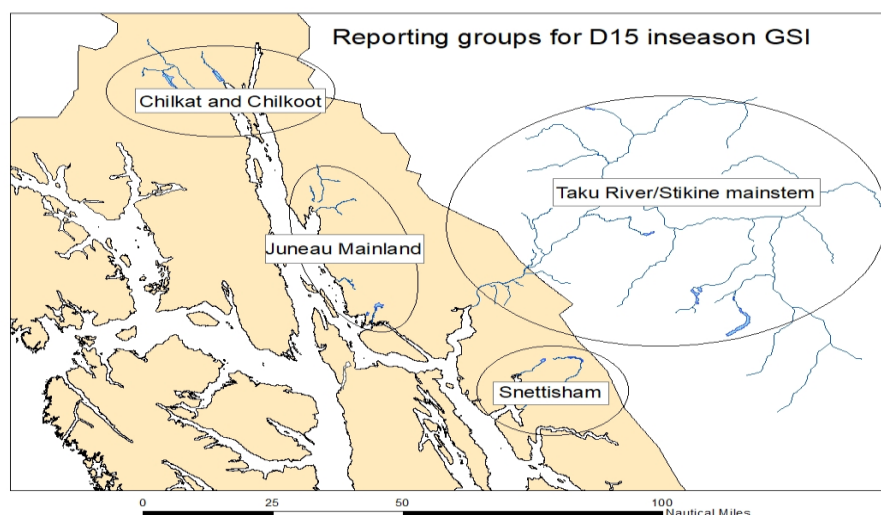
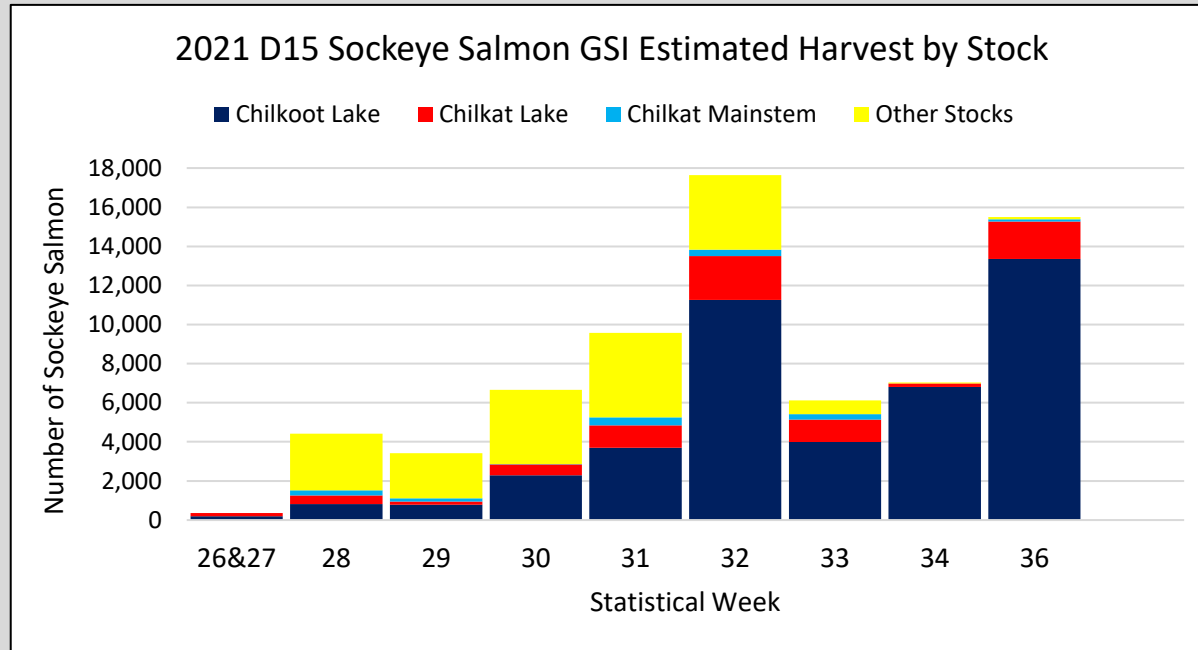


## Section 15-C Harvest and CPUE





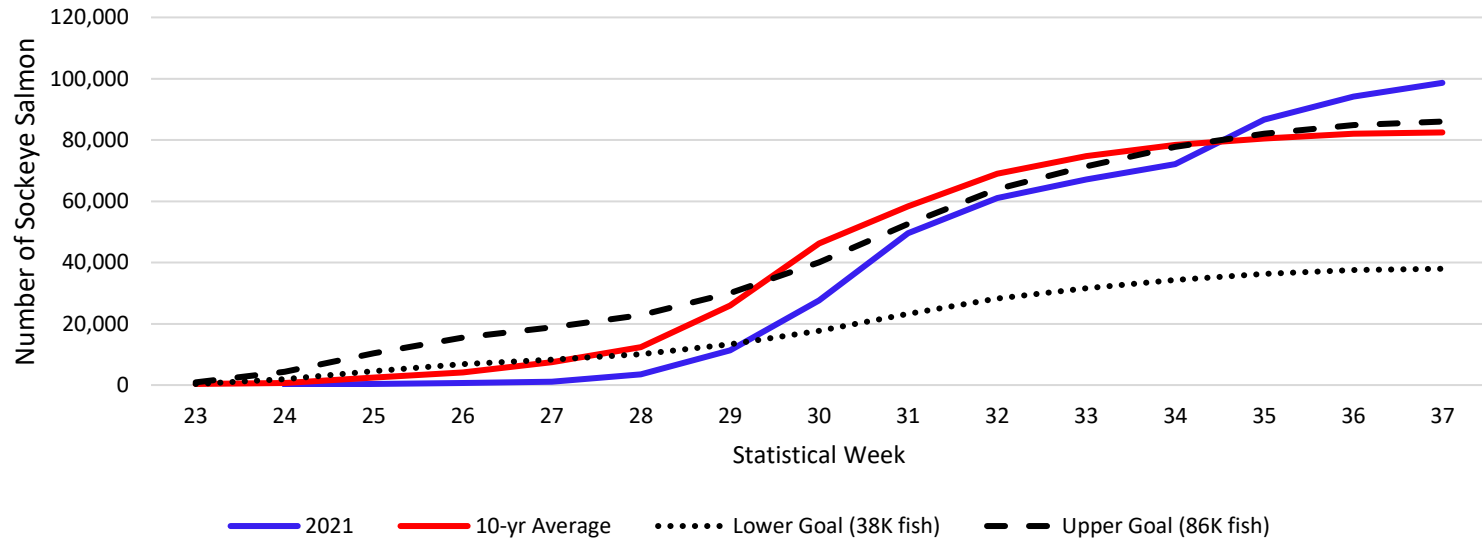
# 2021 Preliminary District 15 Gilnet GSI-Estimated Sockeye Salmon Harvest By Stock Composition



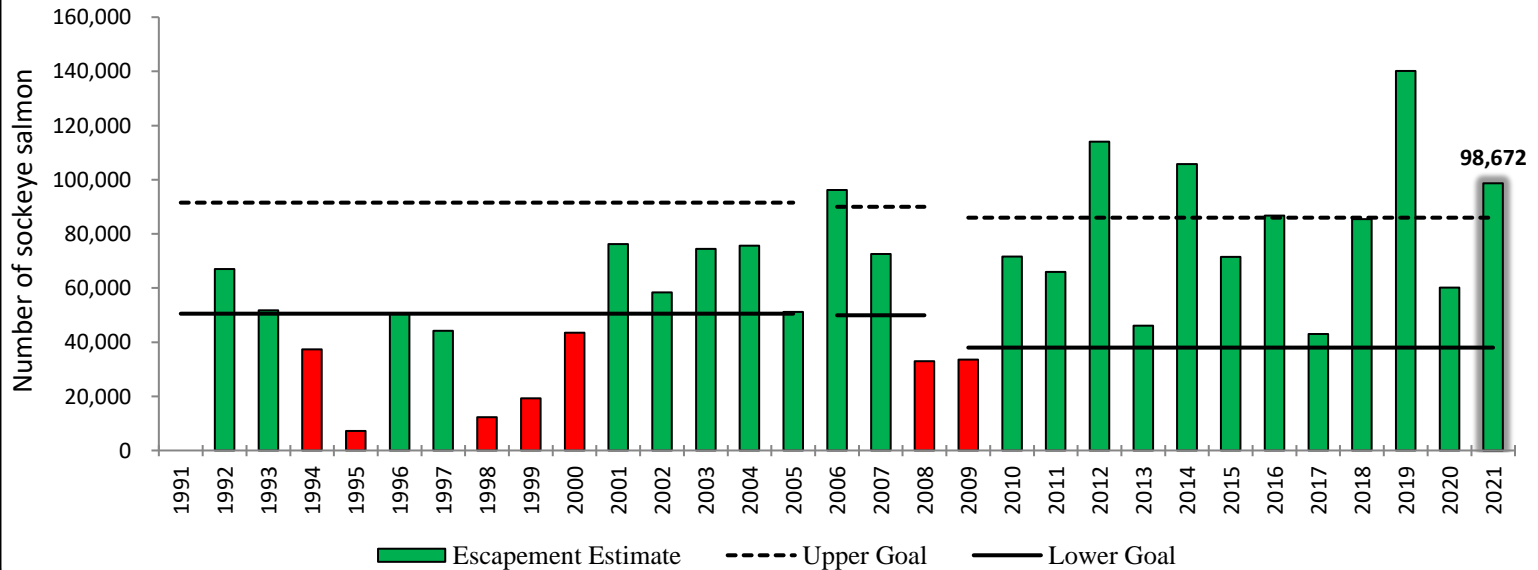
- **~43,200 Chilkoot River sockeye salmon harvested**
- **~8,000 Chilkat River sockeye salmon harvested**

# Chilkoot Lake Sockeye Salmon Escapement

## Cumulative Weekly Weir Counts Compared to Escapement Goals

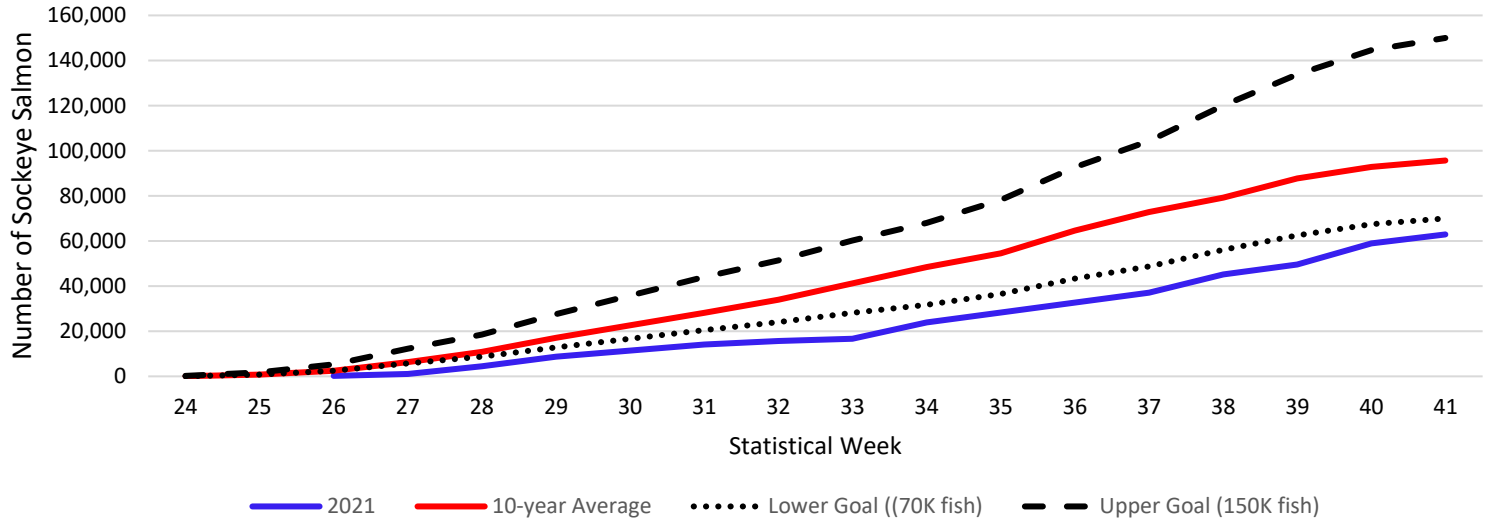


## Chilkoot Lake Sockeye Salmon Escapement Estimates

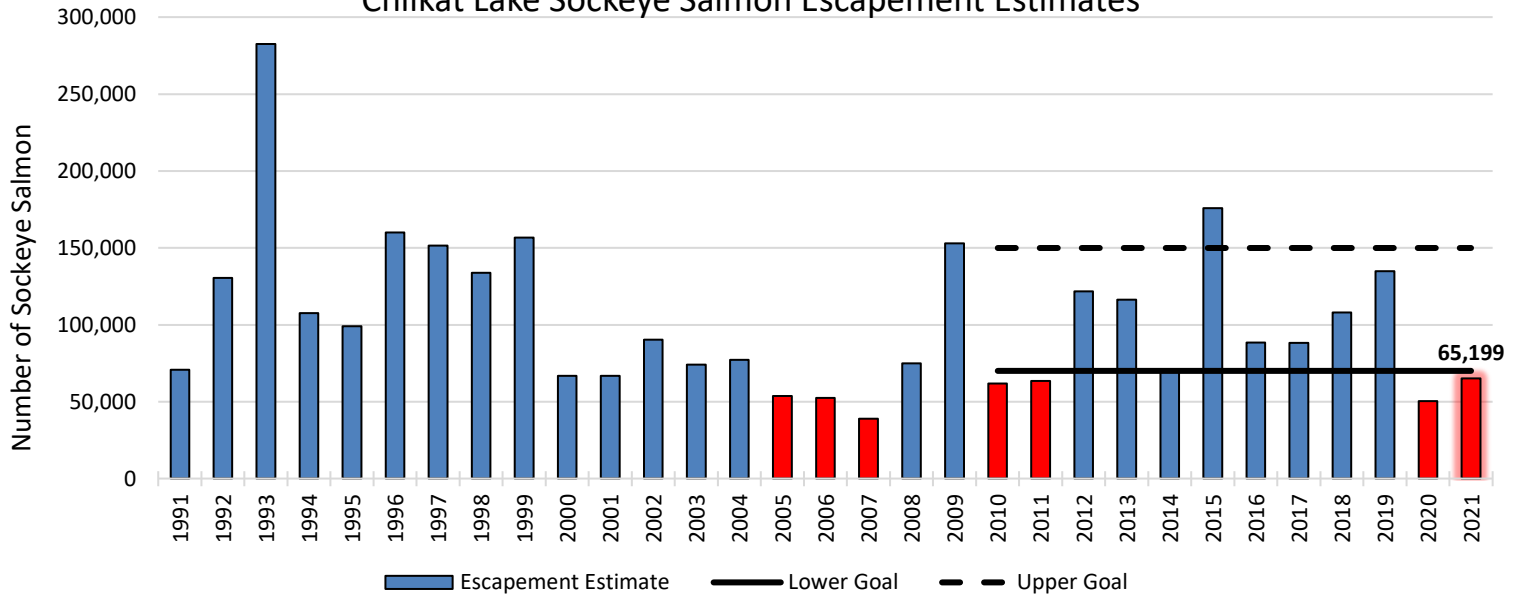


# Chilkat Lake Sockeye Salmon Escapement

## Cummulative Weekly Chilkat DIDSON Counts Compared to Escapement Goal

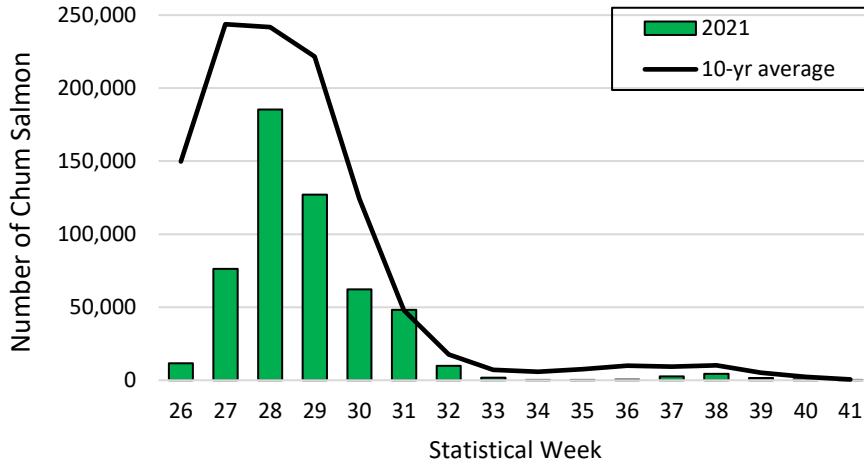


## Chilkat Lake Sockeye Salmon Escapement Estimates

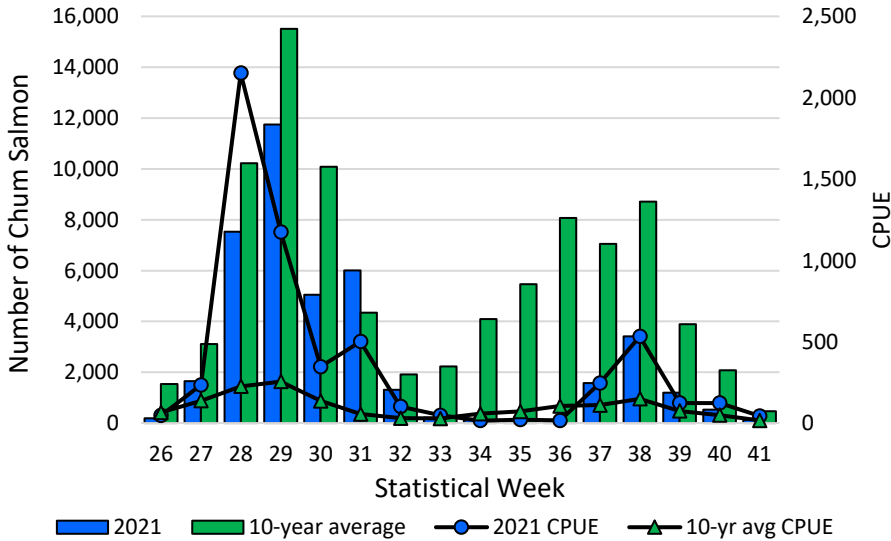


# District 15 Weekly Chum Salmon Harvest

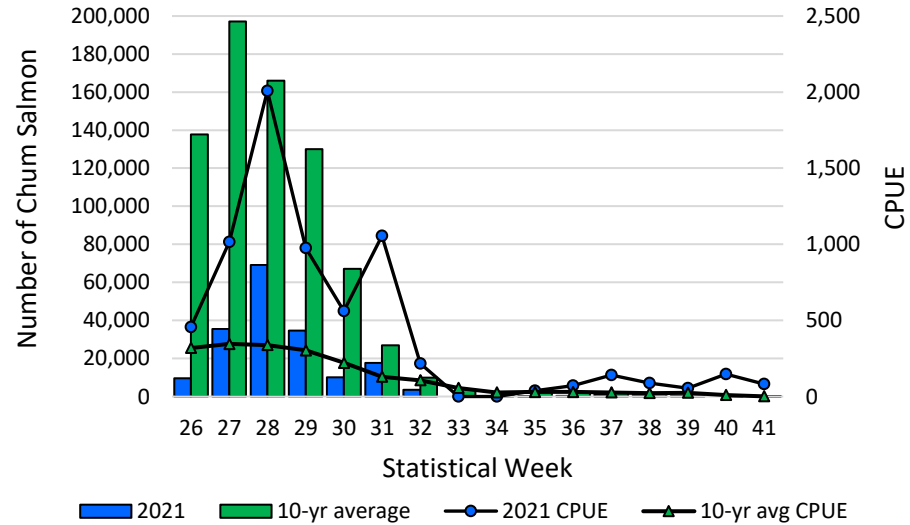
## District 15 Harvest



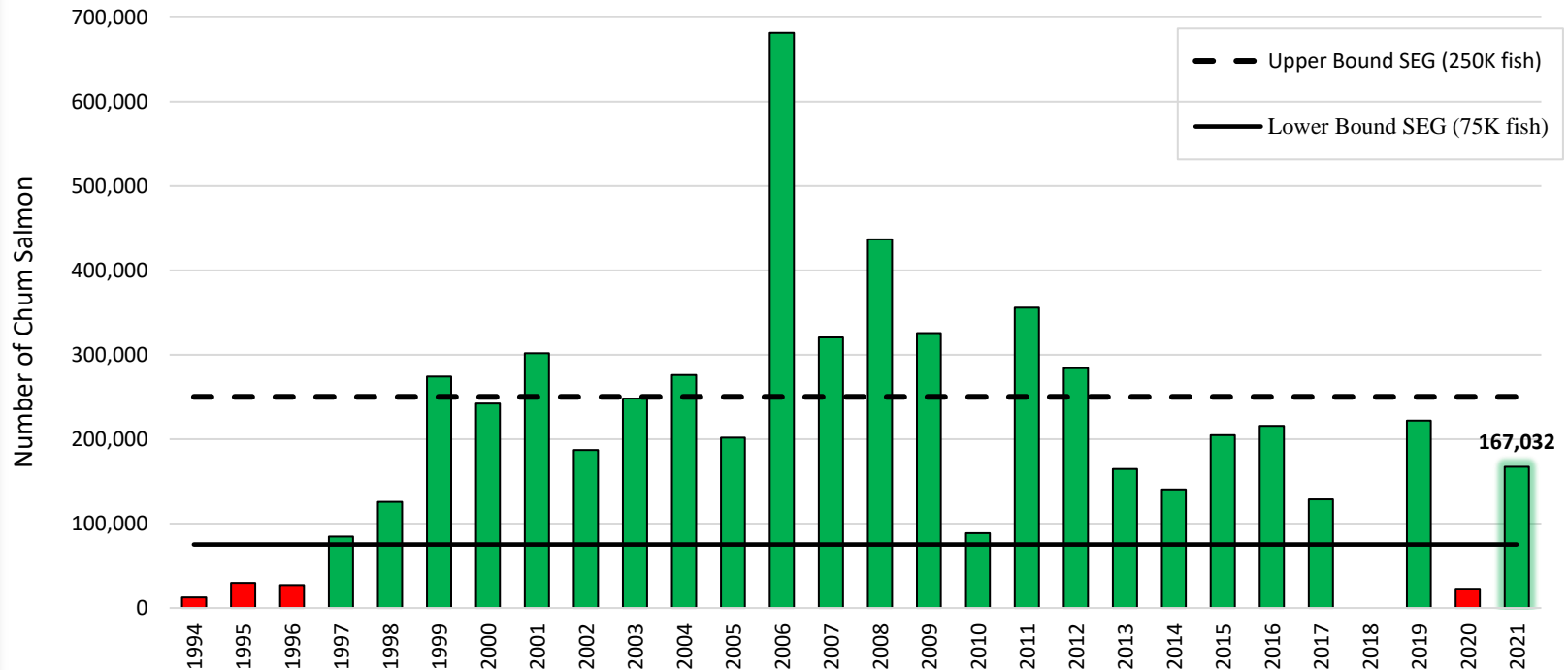
## Section 15-A Harvest and CPUE



## Section 15-C Harvest and CPUE



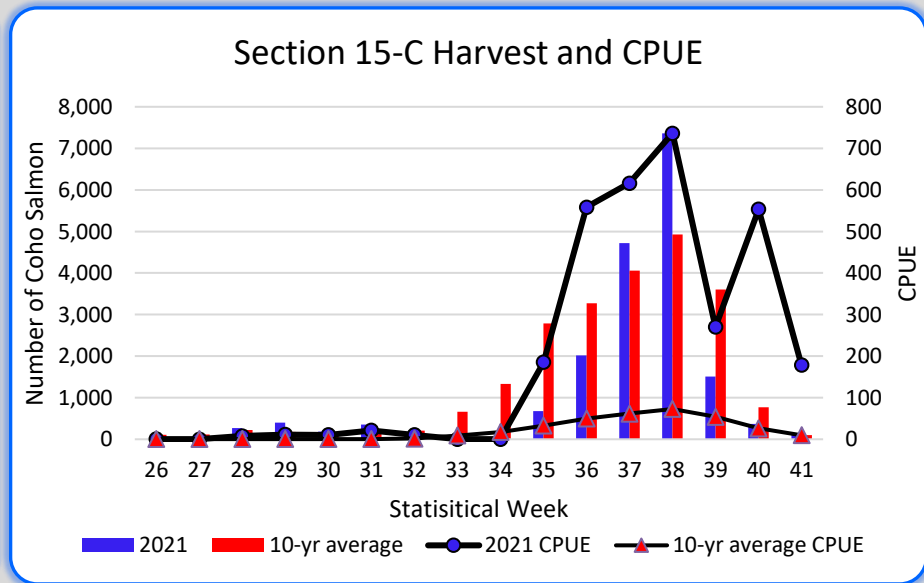
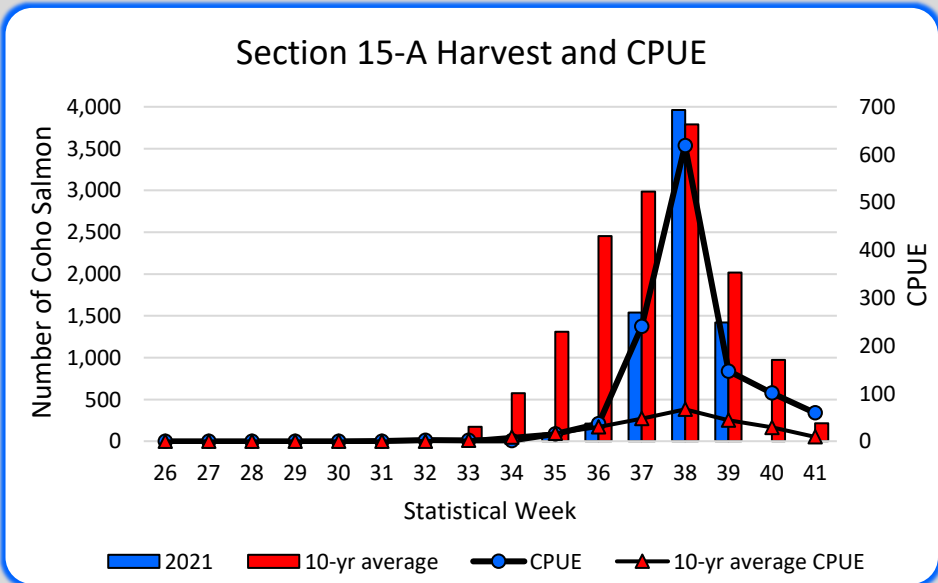
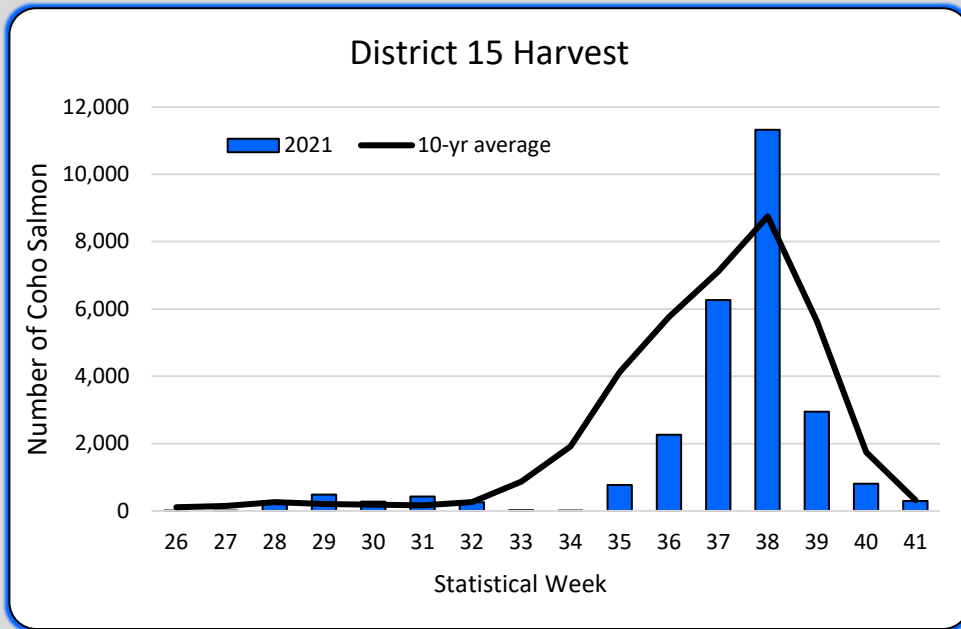
## Chilkat River Fall Chum Salmon Escapement Estimates



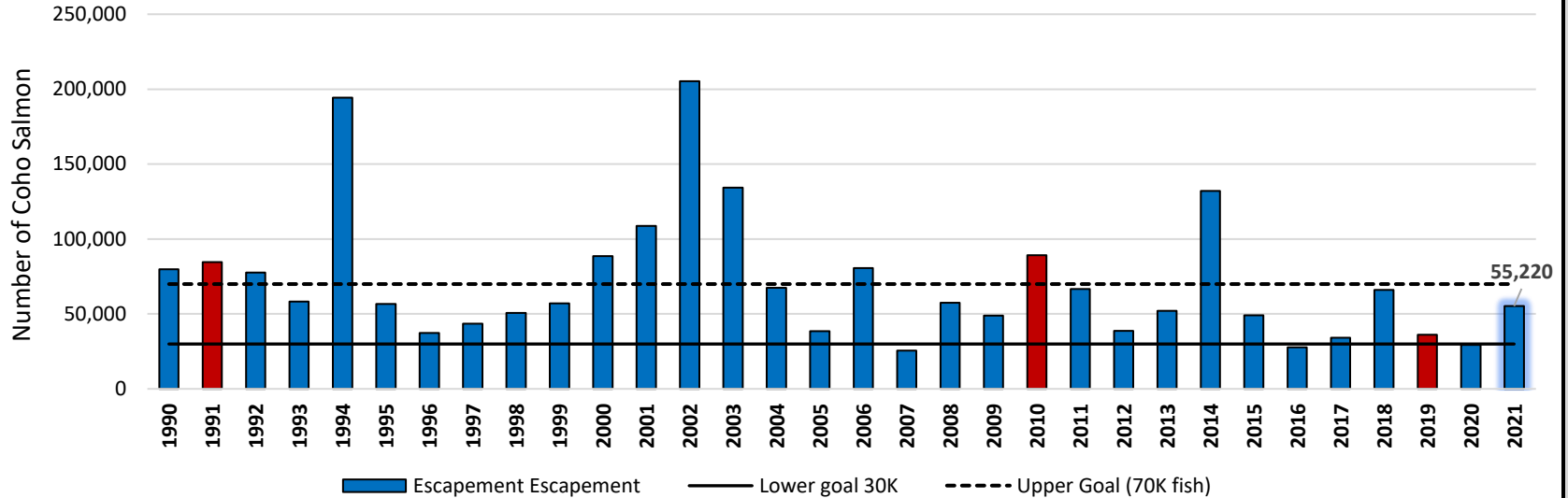
- Escapements are estimated from expanded fish wheel catches
- 2021 Chilkat River fish wheels catches = 2,589 chum salmon expands to **167,032 fish**
- Within Sustainable Escapement Goal (SEG) Range of 75,000 – 250,000 fish



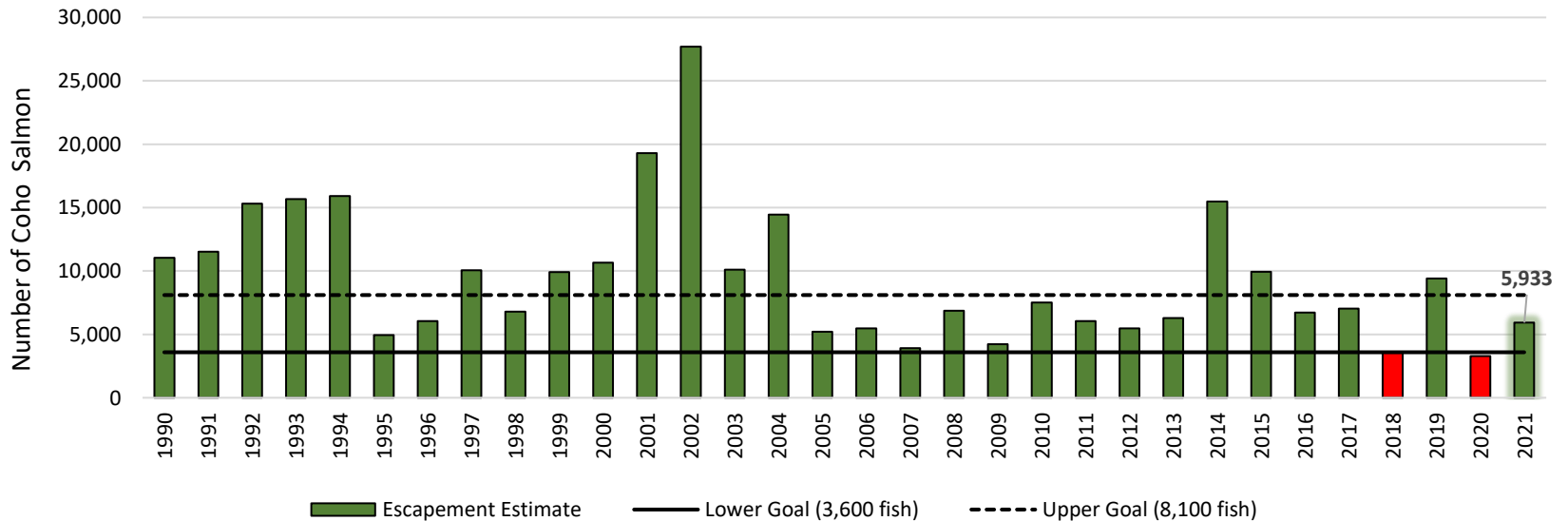
# District 15 Weekly Coho Salmon Harvest



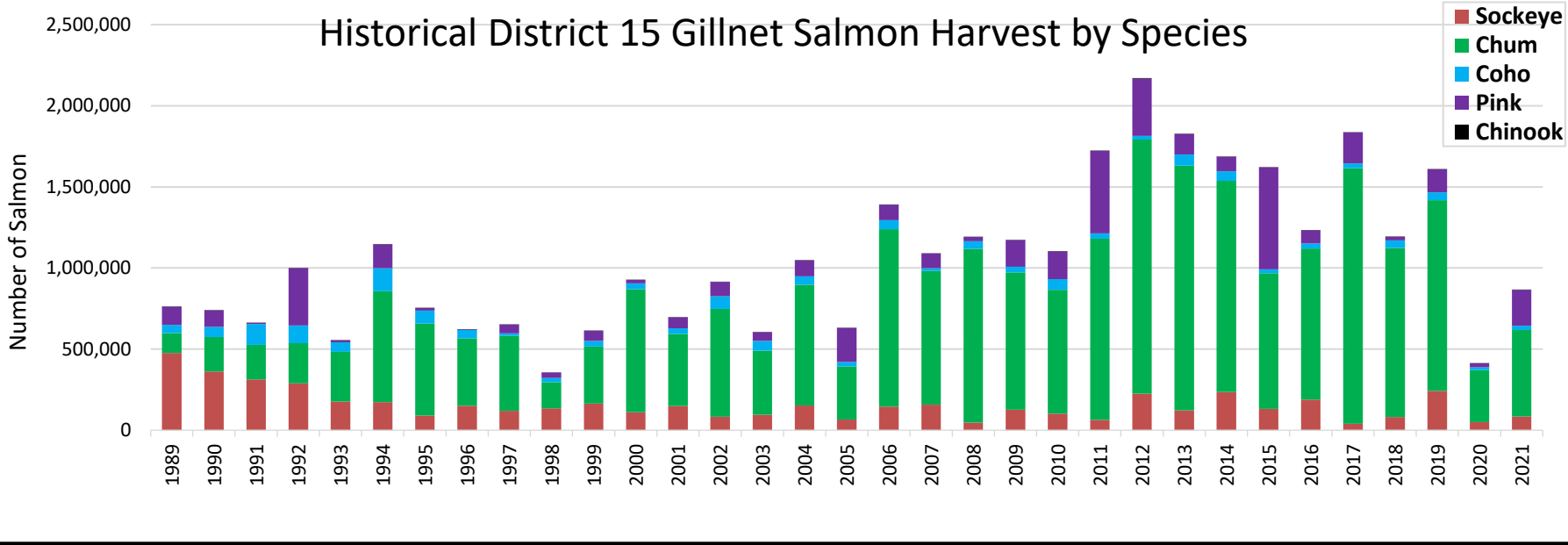
## Chilkat River Coho Salmon Escapement Estimates



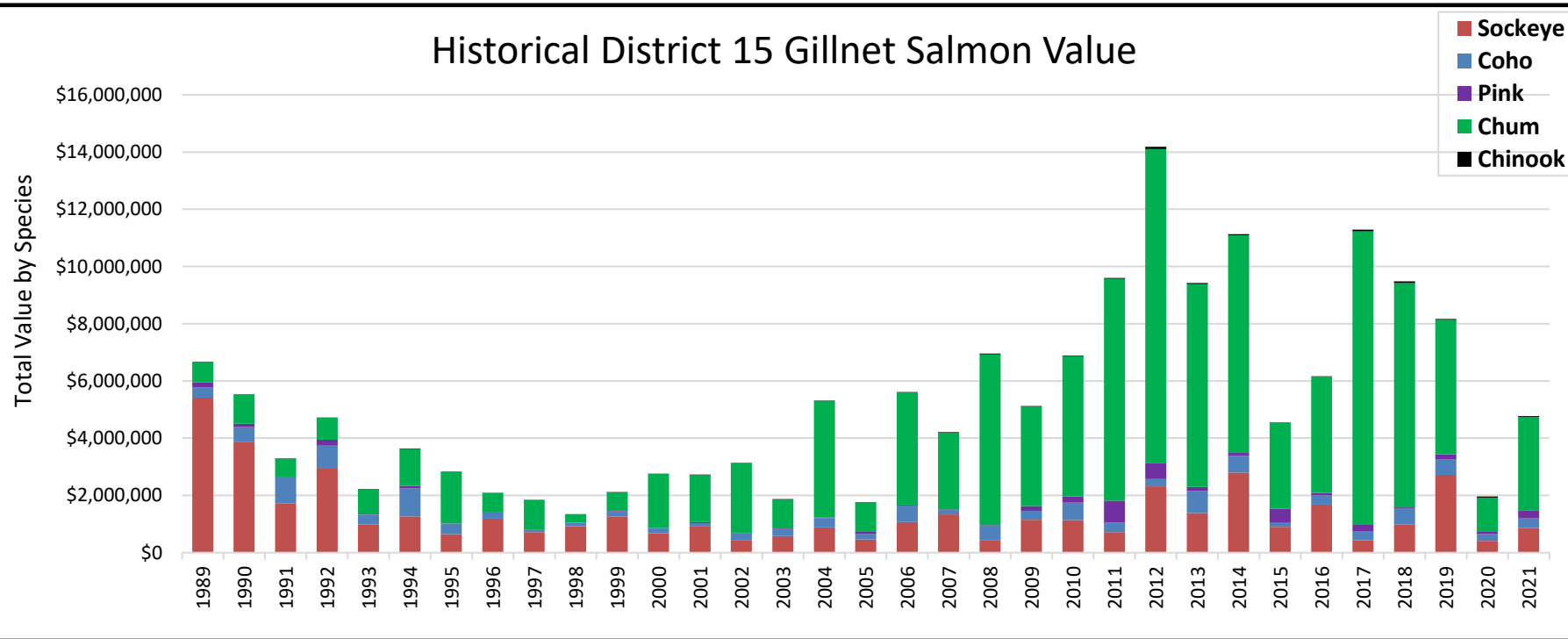
## Berners River Coho Salmon Escapement Estimates



## Historical District 15 Gillnet Salmon Harvest by Species



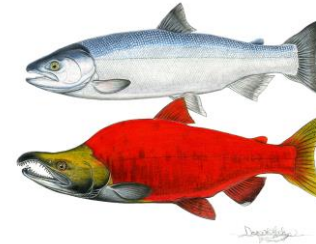
## Historical District 15 Gillnet Salmon Value



# 2022 Sockeye Salmon Outlook

## Chilkoot Lake Sockeye Salmon

- 2022 general expectation = Average run
- **5-year old** fish account for **76%** of the return (past 10 brood years 2005-2014)
- **2017 parent year escapement** = **~43,000 fish** (near upper bound of esc. goal range of 38,000–86,000 fish, major component of 2022 run)
- 2018 rearing fry population estimate = 919K (14% above average)
- 2018 zooplankton biomass estimate = 181% above average



## Chilkat Lake Sockeye Salmon

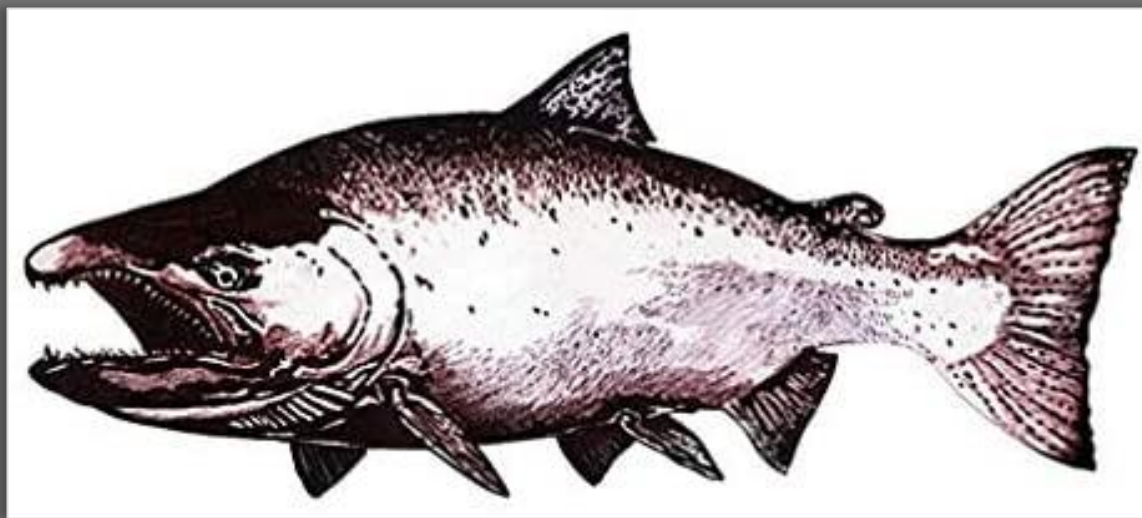
- 2022 general expectation = Average run
- **5-year old fish** account for **62%** of the return and **6-year old** fish account for **33%** of the return (past 10 brood years 2005-2014)
- **2017 parent year escapement** (5-yr old fish) = **~88,200 fish** within escapement goal range of 70K–150K fish (major component of 2022 run)
- **2016 parent year escapement** (6-yr old fish) = **~87,600 fish** within BEG range



# 2022 Chilkat River Chinook Salmon Forecast

Total run forecast = ? large fish

(BEG of 1,750 to 3,500 fish)





A photograph of a double rainbow over a body of water. The primary rainbow is on the left, and a secondary, fainter rainbow is on the right. The water is dark green with whitecaps. In the background, there are forested hills under a grey, overcast sky. The text "Thank you!" is centered in the middle of the image.

**Thank you!**