

# 2020 Post Season Review

## Ketchikan Management Area

Purse Seine  
Districts 1-4

Bo Meredith  
Area Management Biologist  
Commercial Fisheries - Ketchikan



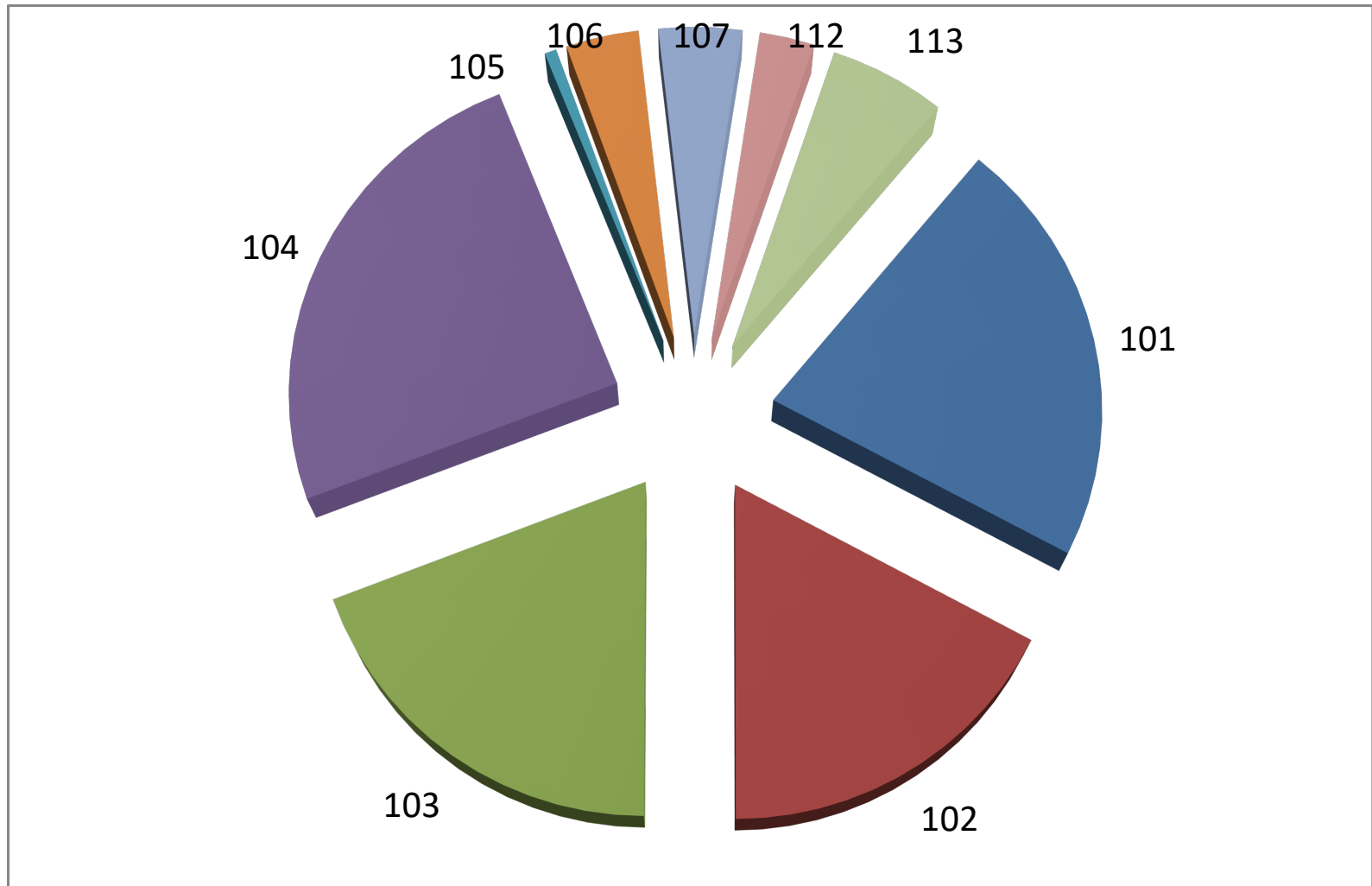
# Purse Seine Catch – All Districts in Southeast Traditional Harvest Only – no THA's

District	Chinook	Sockeye	Coho	Pink	Chum	Total	Number of Permits
101	259	40,952	10,751	1,275,550	72,408	1,399,920	110
102	157	15,858	13,364	1,011,024	137,090	1,177,493	100
103	240	23,991	16,469	1,125,385	73,285	1,239,370	95
104	3,833	143,877	19,705	1,453,277	84,027	1,704,719	99
105	1	1,090	537	35,640	2,471	39,739	10
106	40	3,867	1,776	217,054	18,994	241,731	27
107	71	3,364	1,161	248,938	28,789	282,323	67
112	23	943	1,365	162,861	5,583	170,775	32
113	63	862	4,432	346,911	467,666	819,934	133
Total	4,687	234,804	69,560	5,876,640	890,313	7,076,004	200

Total boats Ketchikan = 171

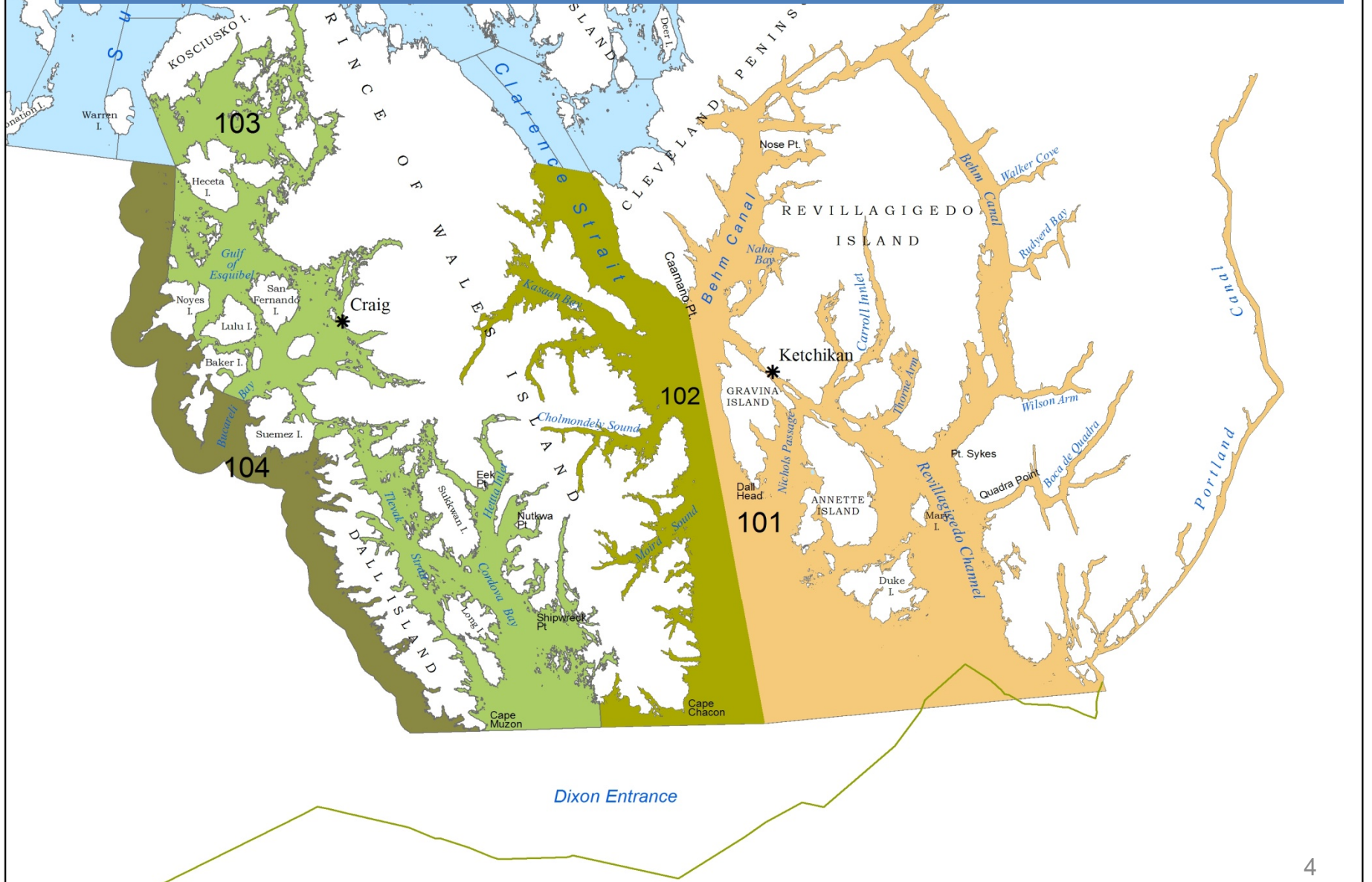
Total boats all Southeast = 200

# Southeast Alaska Purse Seine Traditional Pink Salmon Harvest - 2020





# Ketchikan Purse Seine Districts

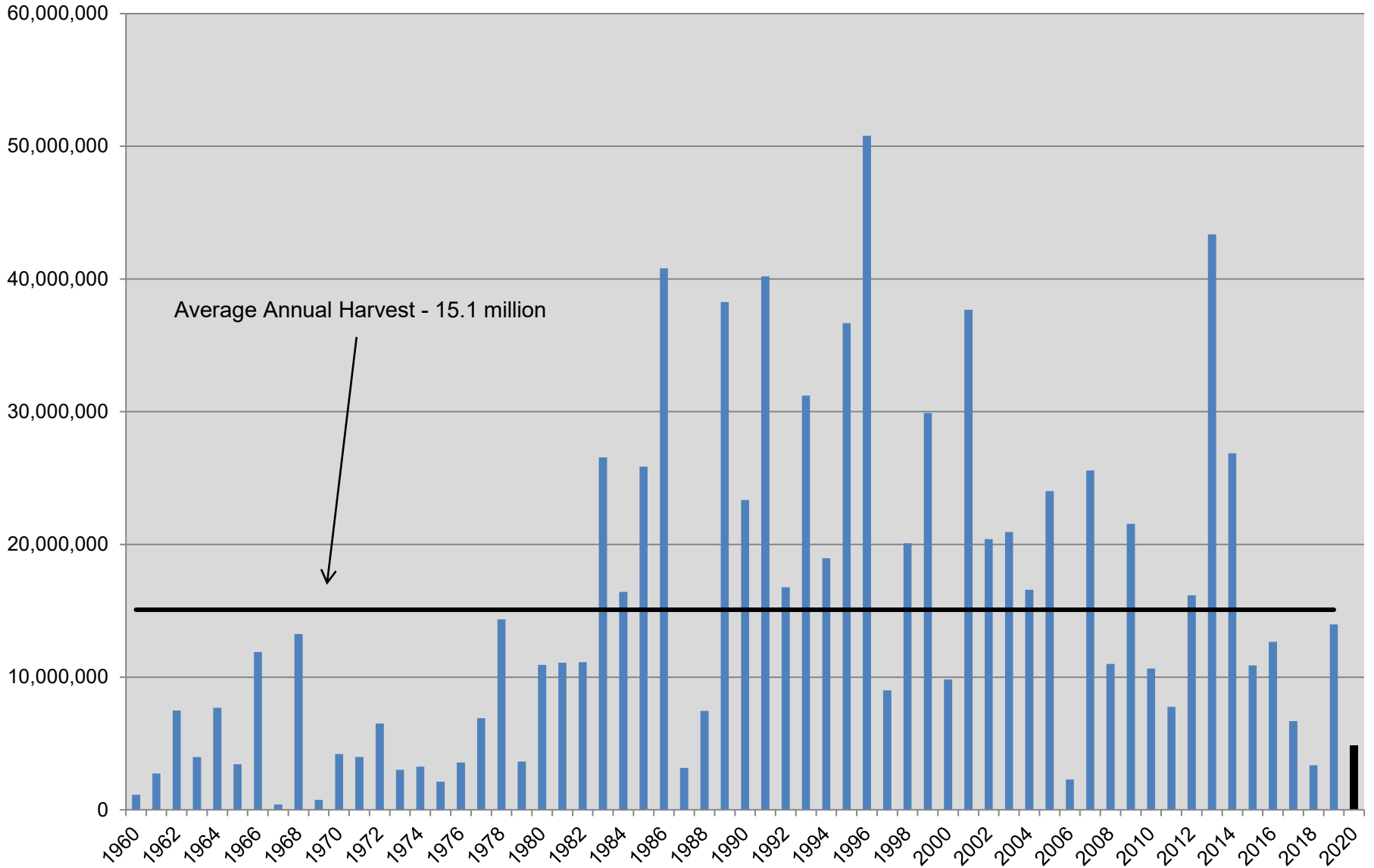


# 2020 Ketchikan Area Commercial Net Harvests

## Purse Seine and Gillnet Common Property Fisheries - Districts 1-4

Fishery	Chinook	Sockeye	Coho	Pink	Chum	Totals
PS 101	256	40,955	10,764	1,275,244	72,408	1,399,627
PS 102	157	15,858	13,364	1,011,024	137,090	1,177,493
PS 103	234	23,102	16,612	1,108,109	71,985	1,220,042
PS 104	3,833	143,877	19,705	1,453,277	84,027	1,704,719
GN 101	1,812	9,342	20,253	186,278	136,083	353,768
Carroll THA GN	989	2	0	29	72	1,092
Carroll THA SN	1,646	0	0	3	122	1,771
Neet Bay THA GN	3,251	0	0	0	2,169	5,420
Neets Bay THA PS	3,576	9	16	20	4,372	7,993
Nakat THA GN	155	246	632	7,972	72,646	81,651
Kendrick THA PS	1	513	420	8,356	62,482	71,772
Annette Island GN	571	2,342	5,659	148,756	56,676	214,004
Annette Island PS	241	12,302	1,908	380,518	19,056	414,025
<b>Totals</b>	<b>16,722</b>	<b>248,548</b>	<b>89,333</b>	<b>5,579,586</b>	<b>719,188</b>	<b>6,653,377</b>

# Ketchikan Management Area Traditional Purse Seine Pink Salmon Harvest, 1960-2020



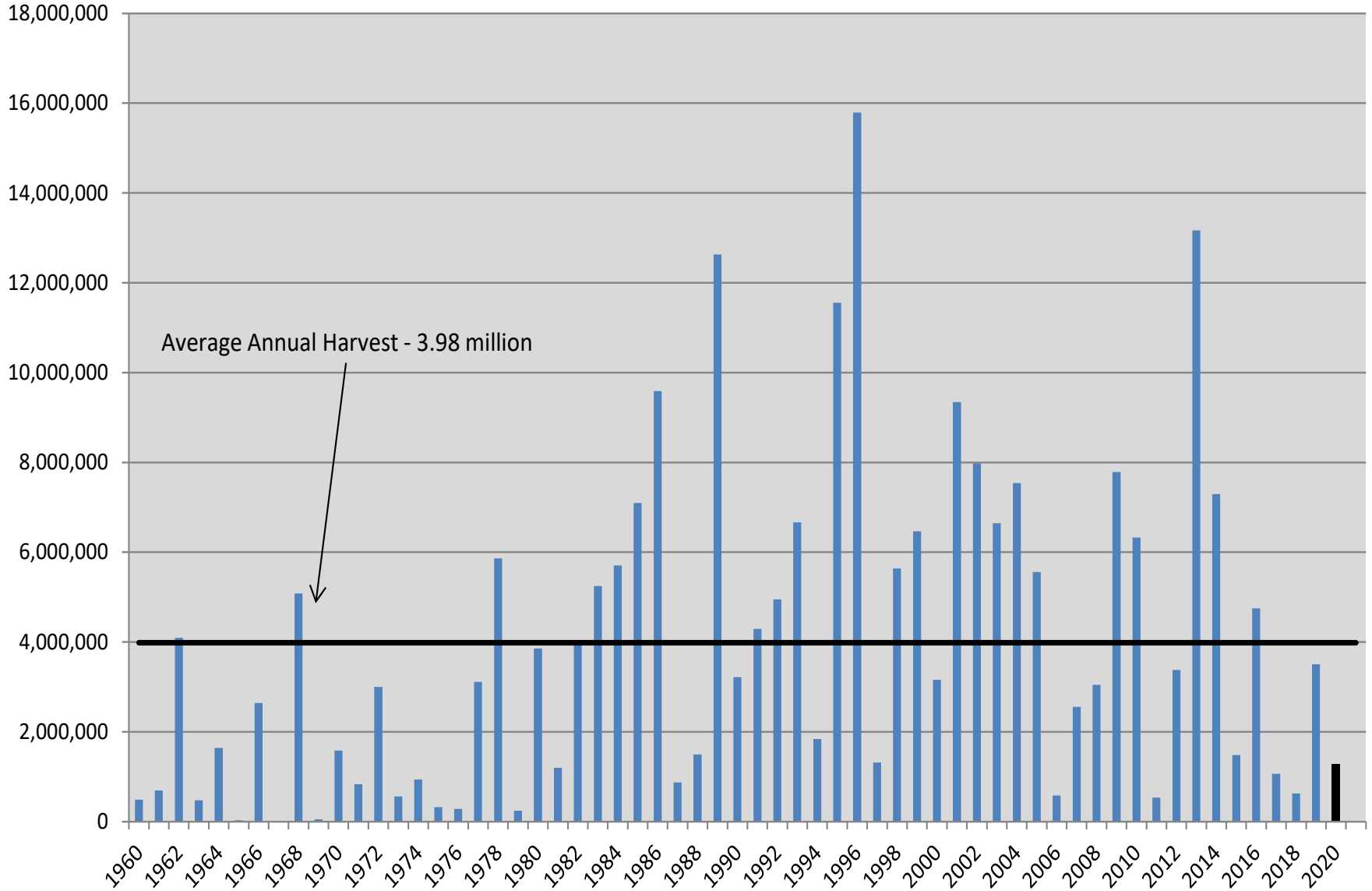
# 2020 District 1 Purse Seine – Harvest by Opening

## 2020 District 1 Purse Seine

Opening	Chinook	Sockeye	Coho	Pink	Chum	Boats	Hours
28	0	400	678	55,198	3,143	32	15
29	0	1,177	782	92,100	6,348	40	15
29B	0	1,917	759	164,333	7,675	54	15
30	0	2,143	446	150,919	5,955	42	15
30B	0	3,130	785	134,267	9,996	76	15
31	0	3,872	1,178	160,869	12,275	50	15
31B	0	1,971	599	115,332	3,886	39	15
32	98	3,300	814	95,358	7,222	19	15
32B	58	5,891	1,157	109,820	5,296	32	15
32C	42	11,251	956	98,691	5,817	22	15
33B				CLOSED			
34	56	5,431	2,292	88,788	3,906	27	15
<b>Total</b>	<b>254</b>	<b>40,483</b>	<b>10,446</b>	<b>1,265,675</b>	<b>71,519</b>	<b>110</b>	<b>165</b>

- Pinks ranked 28 of 60 since 1960.
- 10-year avg = 4.2 million pinks.
- Hugh Smith restrictions persisted from SW 29-33. Hugh Smith final esc of 3,860 is ~50% of the lower end of the escapement goal. Subsequently the pink systems in Quadra did well.
- The District remained closed for SW 33.
- Carroll and George Inlet remained weak for much of the season. Ended up ok.
- Specific McDonald Lake sockeye restrictions weren't felt due to the low pink abundance.

# District 1 Traditional Purse Seine Pink Salmon Harvest 1960-2020





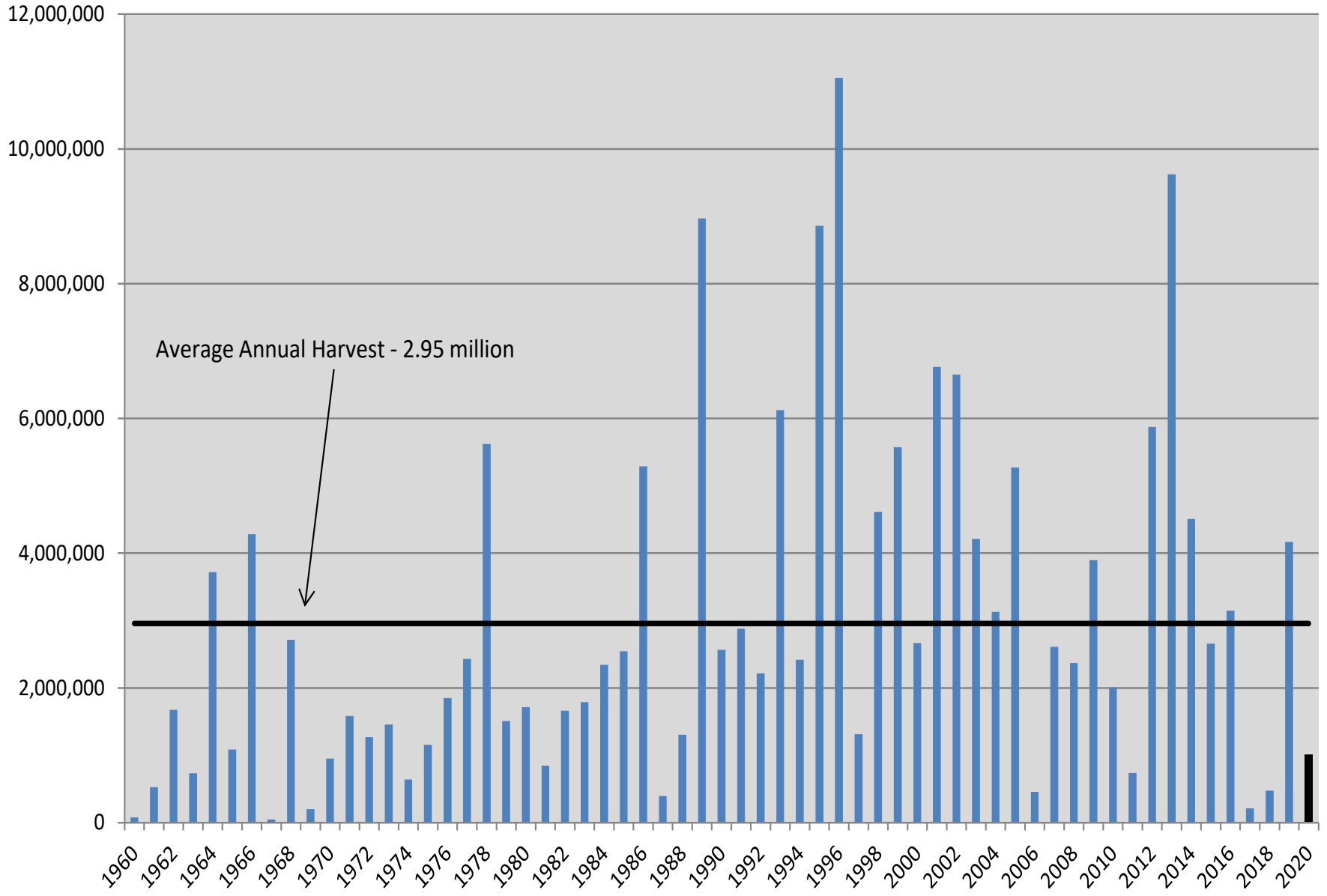
# 2020 District 2 Purse Seine – Harvest by Opening

Early outside Kendrick

Opening	Chinook	Sockeye	Coho	Pink	Chum	Boats	Hours
26	0	119	712	7,309	11,384	25	87
27	0	588	1,370	11,369	22,968	40	87
28	0	161	288	2,556	6,368	14	15
29	0	425	743	5,565	17,873	28	15
29B	0	678	903	17,327	23,446	20	15
30	0	507	734	11,744	16,577	25	15
30B	0	307	382	33,421	7,747	17	15
31	0	9	16	110	1,058	1	15
31B	0	1,303	1,128	127,335	6,813	28	15
32	60	2,622	1,574	188,757	4,500	23	15
32B	34	2,536	1,602	171,205	4,908	21	15
32C	21	1,859	1,558	199,908	3,919	38	15
33B	37	3,390	1,771	184,143	6,448	40	15
34	4	933	484	36,894	2,702	15	15
<b>Total</b>	<b>156</b>	<b>15,437</b>	<b>13,265</b>	<b>997,643</b>	<b>136,711</b>	<b>100</b>	<b>354</b>

- Pinks rank 48 out of 60 since 1960.
- 10 yr avg = 3.3 million
- Kasaan escapements were strong. Chomly was weak and never got where it needs to be. Moira was average but conditions never allowed for a look in some of the systems.
- No fall chum fishery. Escapements ended up just barely hitting the lower end.

# District 2 Traditional Purse Seine Pink Salmon Harvest 1960-2020



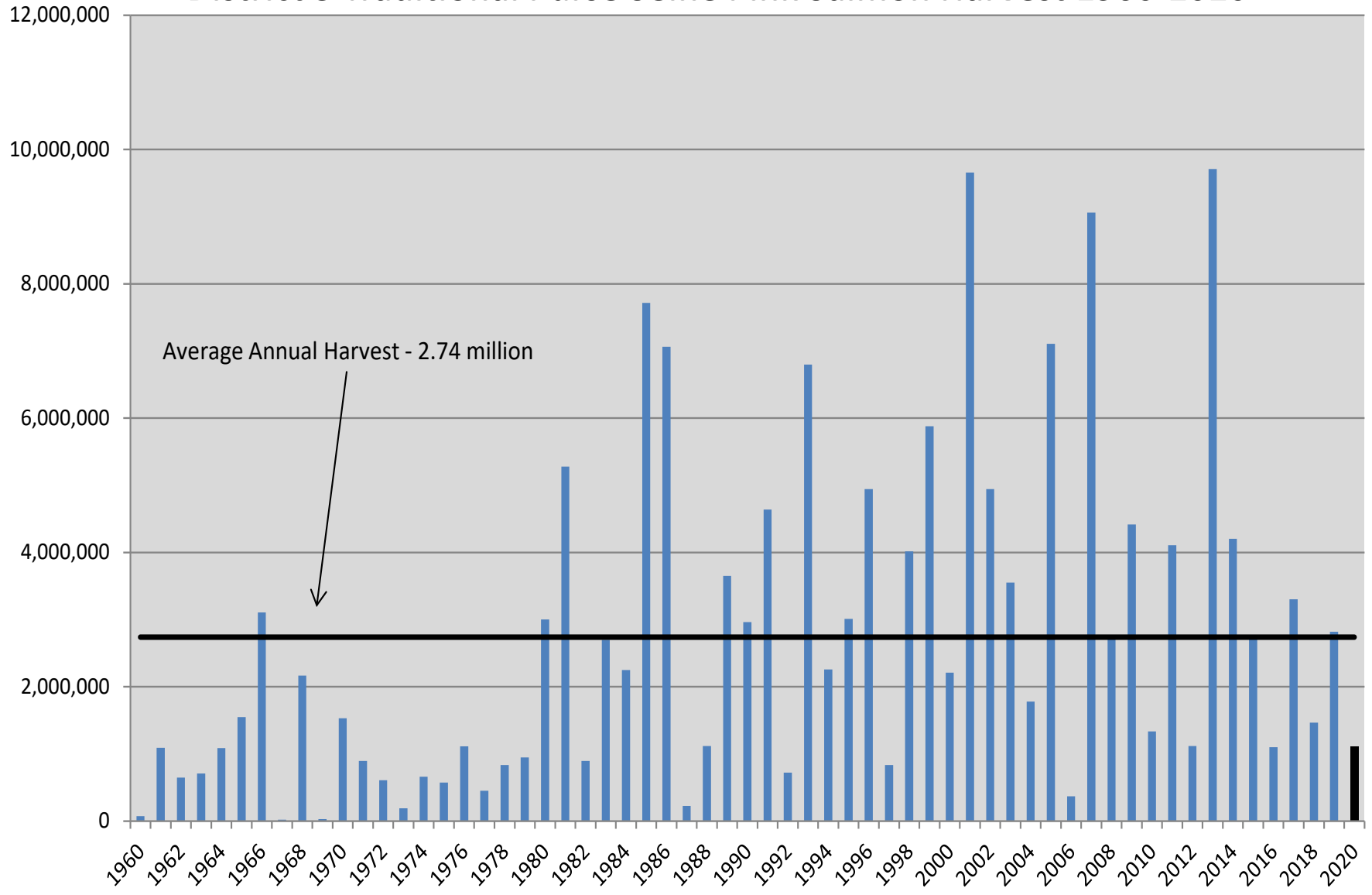
# 2019 District 3 Purse Seine – Harvest by Opening

## 2020 District 3 Purse Seine

Opening	Chinook	Sockeye	Coho	Pink	Chum	Boats	Hours
30B	0	2,507	1,763	67,280	13,095	30	15
31	0	4,719	1,799	51,633	5,909	28	15
31B	0	2,839	1,692	104,101	7,266	20	15
32	109	4,742	1,801	176,690	7,229	33	15
32B	77	3,251	2,988	236,778	11,898	47	15
32C	15	2,333	3,169	217,826	15,516	43	16
33B	10	700	1,700	130,000	6,100	23	15
34	23	1,881	1,638	123,825	4,764	35	15
<b>Total</b>	<b>234</b>	<b>22,972</b>	<b>16,550</b>	<b>1,108,133</b>	<b>71,777</b>	<b>95</b>	<b>121</b>

- Pinks rank 40 out of 60.
- 10 yr avg = 3.18 million
- Escapements were generally good to very good. Klakas remained weak despite no openings in Cordova Bay after August 8. Hetta and Nutkwa ended up good.
- Sea Otter was decent in the streams I could see into. Middle 3 was generally good with strong early push of fish into the systems.

# District 3 Traditional Purse Seine Pink Salmon Harvest 1960-2020



The District 4 Purse Seine fishery is managed prior to statistical week 31 to achieve 2.45% of the Annual Allowable Harvest (AAH) of the combined Nass/Skeena sockeye run in that year.

- The AAH is calculated as the combined total run of adult Nass and Skeena sockeye salmon in that year minus the combined Nass and Skeena escapement target of 1.1 million fish or the actual in-river escapement; whichever is less.
- The total run calculation includes the catch of Nass and Skeena sockeye in the boundary area fisheries and the escapement to the Nass and Skeena rivers. The cumulative catch includes sockeye salmon in the Alaskan Districts of 101, 102, 103, 104 and 106 net fisheries and Canadian areas 1, 3, 4 and 5 net fisheries plus Canadian in-river fisheries.

For 2020:

- Skeena preseason forecast of 876K
- Nass preseason forecast of 494K
- Combined preseason forecast of 1.37 million
  - Estimated pre-week 31 AAH of ~10K sockeye
  - First in-season forecast on July 7 was for a TRTC of less than 200K

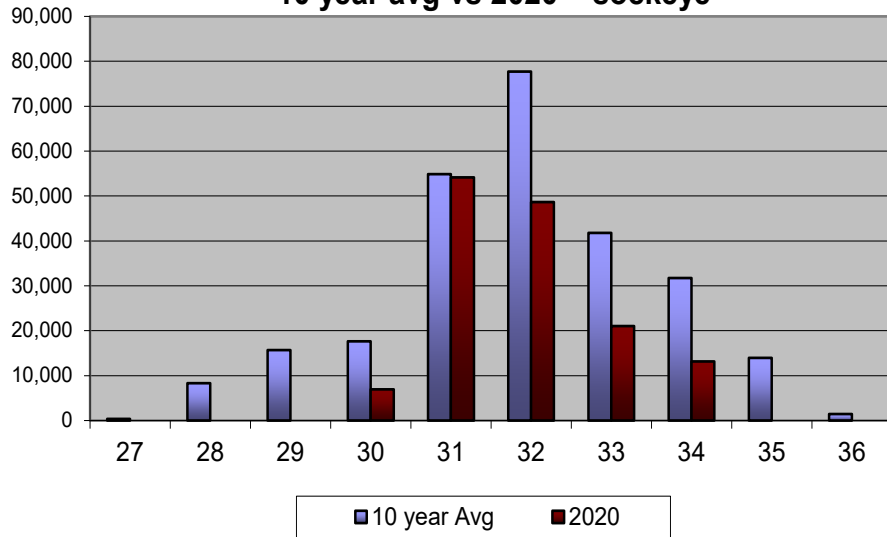


# 2019 District 4 Purse Seine – Harvest by Opening

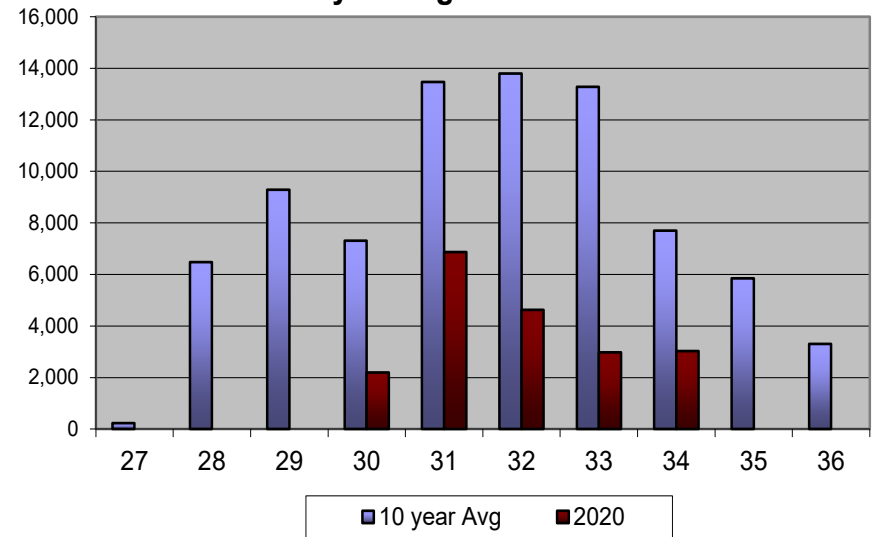
	Opening	Chinook	Sockeye	Coho	Pink	Chum	Boats	Hours
Treaty Period	28				CLOSED			
	29				CLOSED			
	29B				CLOSED			
	30	0	6,923	2,199	66,720	3,960	13	6
	30B				CLOSED			
	31	0	12,510	2,707	85,307	6,874	33	15
	31B	0	41,647	4,166	509,164	19,872	71	15
	32	771	26,546	2,195	191,282	15,571	68	15
	32B	181	11,930	1,352	136,292	12,570	35	15
	32C	103	10,158	1,085	111,983	7,812	23	15
	33B	1,914	21,002	2,975	260,760	12,031	37	15
	34	864	13,161	3,026	91,769	5,337	39	15
	<b>Total</b>	<b>3,833</b>	<b>143,877</b>	<b>19,705</b>	<b>1,453,277</b>	<b>84,027</b>	<b>99</b>	<b>111</b>

- Pre-week 31 sockeye catch = 6,923 Assume 4K Canadian
- Third lowest treaty-period sockeye harvest since 1985
- D4 was open for only 6 hours out of a potential 90 hours during the treaty period. Avg. hours is 61.
- The inseason forecast for Skeena sockeye during stat week 30 increased to 488K from 376K the previous week.

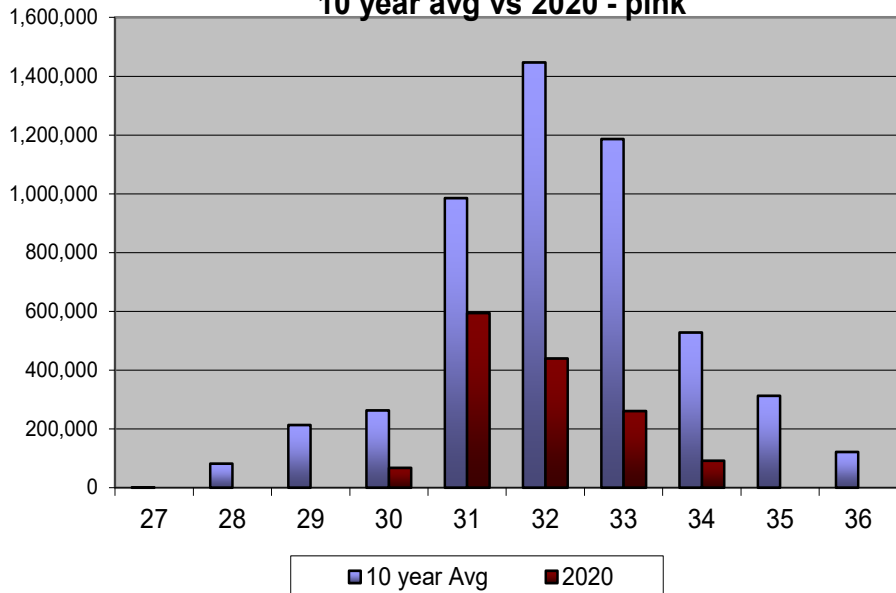
**District 4 Purse Seine Weekly Harvest  
10 year avg vs 2020 - sockeye**



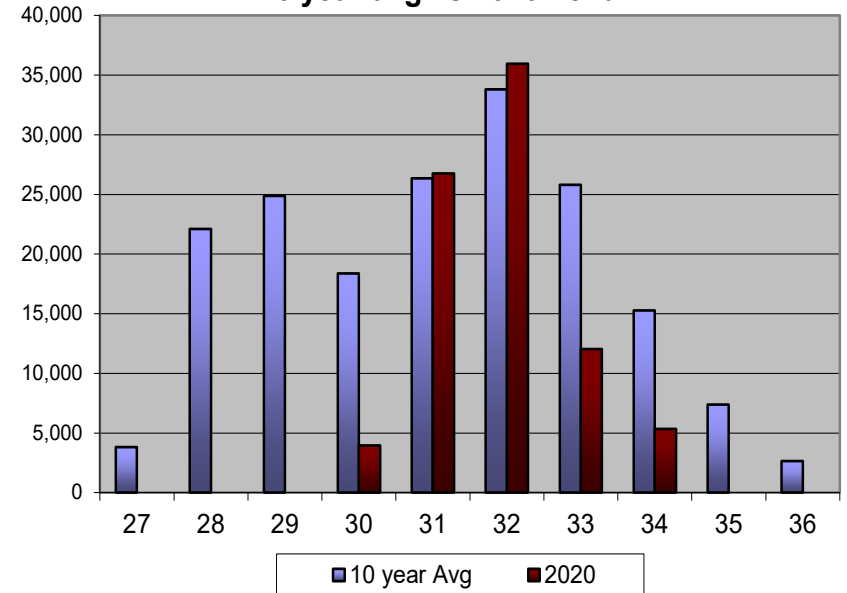
**District 4 Purse Seine Weekly Harvest  
10 year avg vs 2020 - coho**



**District 4 Purse Seine Weekly Harvest  
10 year avg vs 2020 - pink**



**District 4 Purse Seine Weekly Harvest  
10 year avg vs 2020 - chum**



# District 104 – Purse Seine

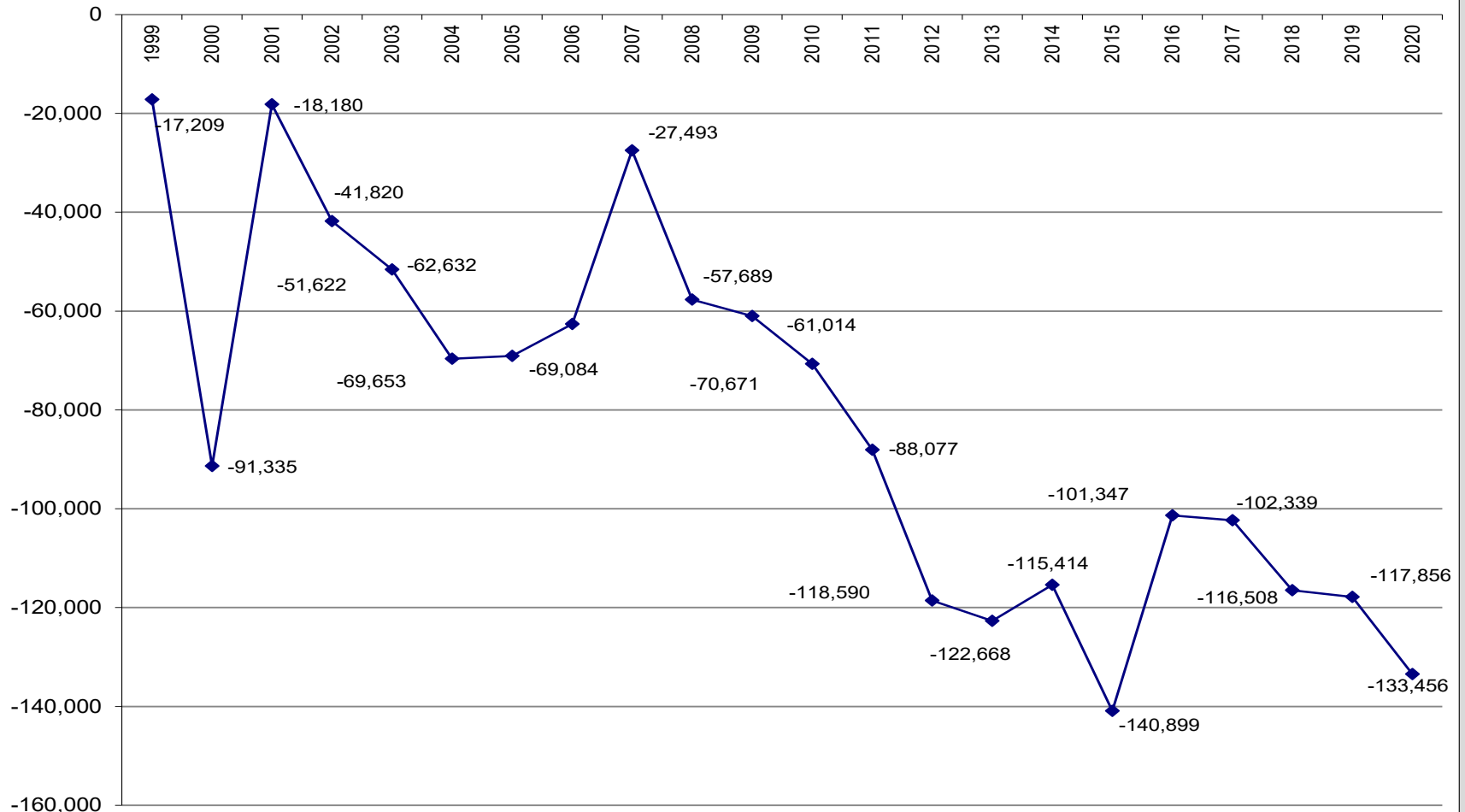
## Fishery Performance, 2020 (preliminary)

	Nass/Skeena Total Return	Nass/Skeena Escapement	Allowable Nass/Skeena AAH	Allowable D4 Harvest (2.45%)	Total Pre- Week 31 Sockeye Harvest	Actual Nass/Skeena Harvest	Overage/ Underage Per Year	Cumulative overage / (underage)
1999	1,771,048	936,705	834,343	20,441	7,664	3,232	-17,209	-17,209
2000	5,318,227	1,100,000	4,218,227	103,347	48,969	29,221	-74,126	-91,335
2001	4,965,286	1,100,000	3,865,286	94,700	203,090	167,854	73,154	-18,180
2002	2,776,504	1,051,335	1,725,169	42,267	26,554	18,627	-23,640	-41,820
2003	3,306,526	1,100,000	2,206,526	54,060	84,742	44,258	-9,802	-51,622
2004	2,620,994	1,100,000	1,520,994	37,264	30,758	19,233	-18,031	-69,653
2005	1,770,472	1,000,142	770,330	18,873	35,690	19,442	569	-69,084
2006	3,650,525	1,100,000	2,550,525	62,488	89,615	68,940	6,452	-62,632
2007	2,752,076	1,100,000	1,652,076	40,476	112,135	75,615	35,139	-27,493
2008	2,531,703	1,100,000	1,431,703	35,077	6,262	4,880	-30,197	-57,689
2009	1,602,960	1,053,859	549,101	13,453	15,971	10,128	-3,325	-61,014
2010	1,395,619	956,957	438,662	10,747	4,612	1,091	-9,656	-70,671
2011	2,487,985	1,100,000	1,387,985	34,006	25,280	16,599	-17,407	-88,077
2012	2,737,168	1,100,000	1,637,168	40,111	18,300	9,598	-30,513	-118,590
2013	981,476	642,461	339,015	8,306	13,102	4,228	-4,078	-122,668
2014	3,824,537	1,100,000	2,724,537	66,751	114,375	74,005	7,254	-115,414
2015	3,015,042	1,100,000	1,915,042	46,919	43,873	21,433	-25,486	-140,899
2016	2,140,259	1,100,000	1,040,259	25,486	110,346	65,039	39,553	-101,347
2017	1,422,783	1,100,000	322,783	7,908	12,036	6,916	-992	-102,339
2018	2,086,458	1,100,000	986,458	24,168	19,743	9,999	-14,169	-116,508
2019	1,208,052	972,115	235,937	5,780	9,399	4,433	-1,347	-117,856
<b>2020</b>	<b>1,900,000</b>	<b>1,100,000</b>	<b>800,000</b>	<b>19,600</b>	<b>6,923</b>	<b>4,000</b>	<b>-15,600</b>	<b>-133,456</b>

- 2020 pre-season AAH = approx. 10K      Final AAH = approx. 20K
- On July 21 (SW 30), the AAH was approx. 3-4K

# District 104 – Purse Seine Treaty Performance 1999-2020

## 104-PS - Cummulative Overage/Underage





# District 102 Fall Fishing

- No directed fall chum fishing in the Ketchikan area for 2020.
- Cholmondeley chum salmon squeaked by the lower end of the escapement goal with the counts in Disappearance and Lagoon Creeks.

Peak Cholmondeley Sound Chum Index  
counts

Total = 30,000

Disappearance – 18,500

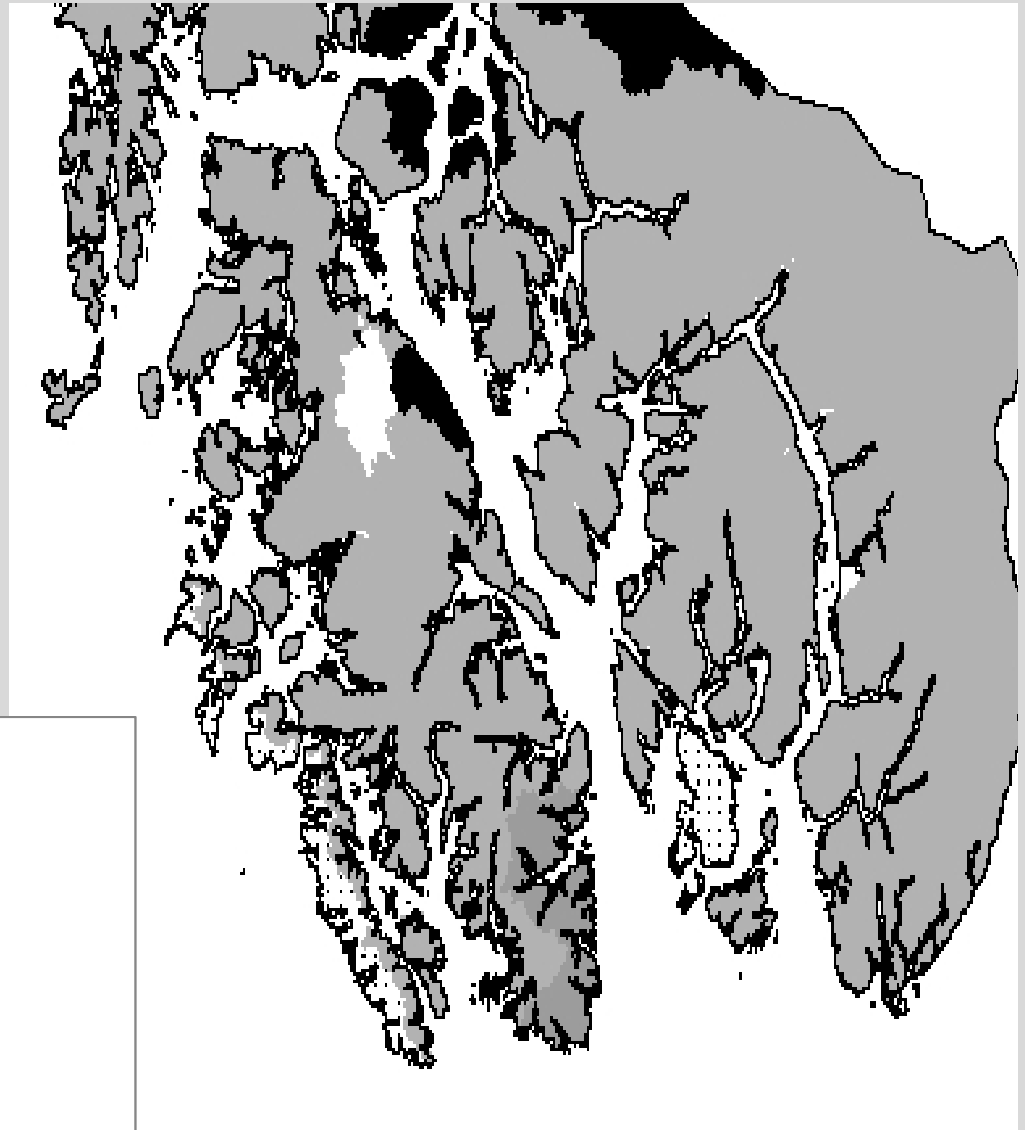
Lagoon – 11,500



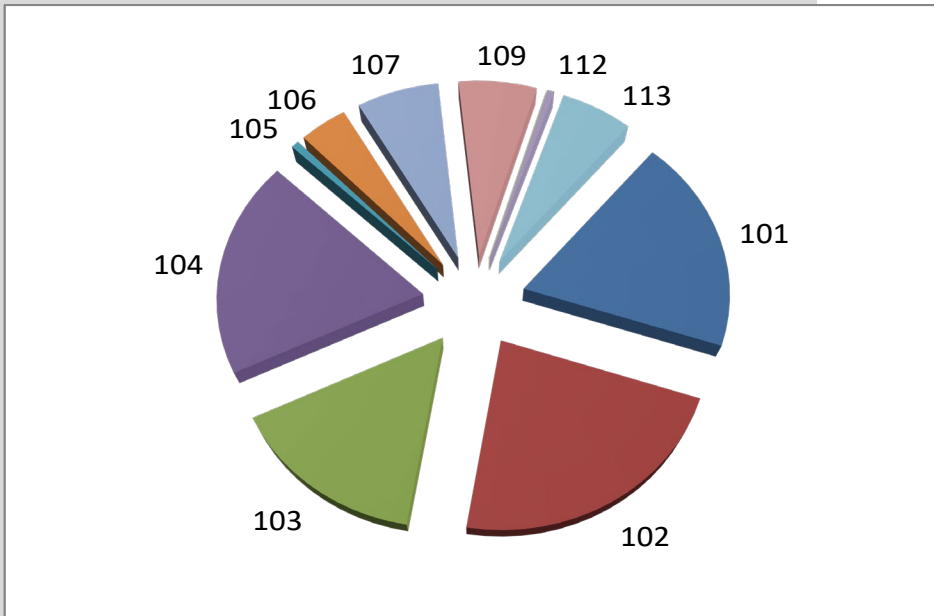
# 2019

## Conditions and beyond?

- Drought conditions persisted into October 2019.
- Just enough rain in early August in the Ketchikan area to avoid die-offs.
- Extremely well-rounded escapements throughout the stock groups.



## 2019 Pink Harvest - SE



# 2021 Expectations

- **District 1** – parent year escapements for all three stock groups were within goal.
  - West Behm stock group was near the upper end. In 2019 Naha had the highest escapement observed on record.
  - East Behm Canal was average with the early Wilson-Blossom system being weak. The Wilson-Blossom confluence has been weak since 2016. This is a major driver in the early District 1 seine fishery.
  - Portland Canal was the only stock group that was weak and was carried by the Tombstone River.
  - Plan for a July 4 (SW 28) start date with the typical early lines south of Cone Point and Pt. Davison.
- **District 2** – parent year escapement was near the upper end of the range in the Kasaan/Chomly stock group. Moira near the mid range.
  - Anticipate a June 20 (SW 26) start date for the early McLean to Polk Island fishery with the July 4 start date to coincide with District 1 south of Polk Island.
- **District 3** – parent year escapements were near the midpoint to upper end of the goal for all four of the stock groups.
- **Sockeye Restrictions:**
  - Canadian, Hugh Smith, McDonald

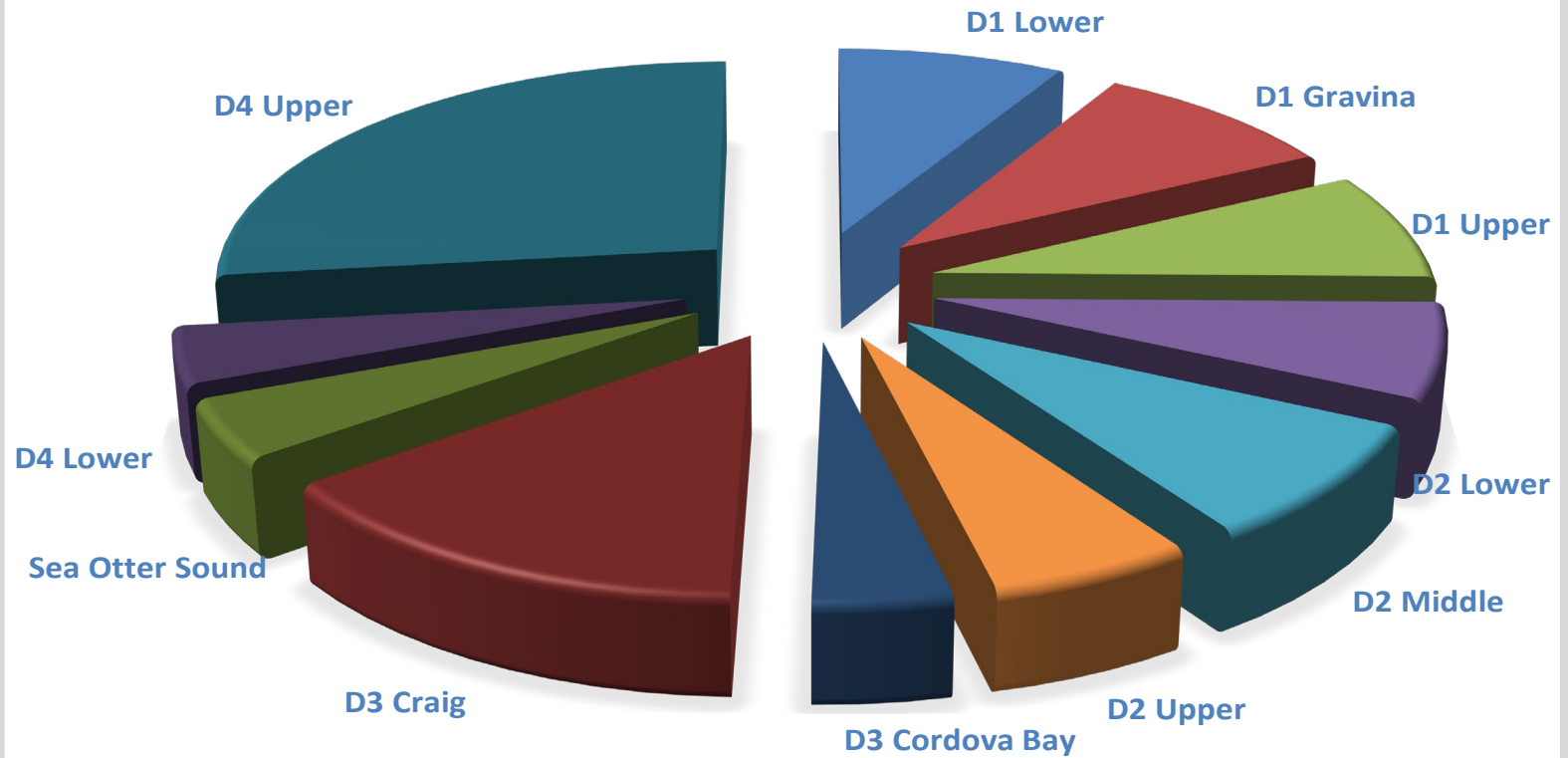
The End

Questions?

Let's close the book on 2020 salmon.

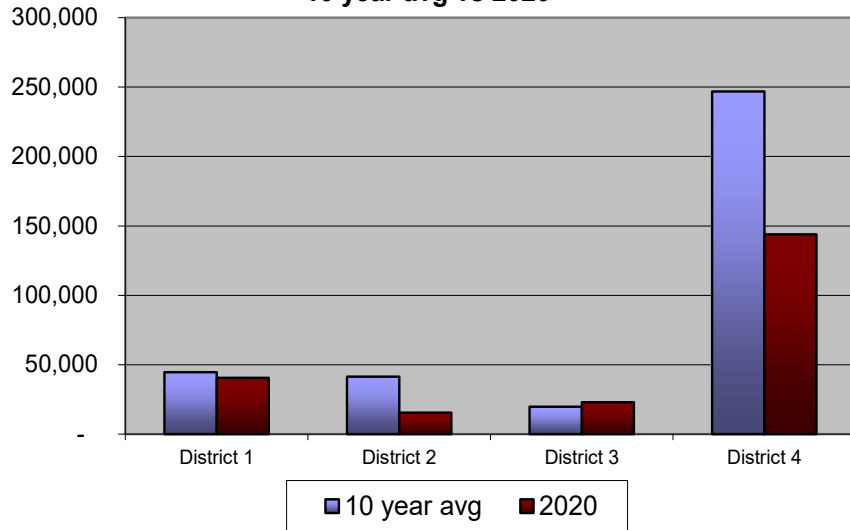
Additional charts follow this slide for informational purposes.

# 2020 Pink Salmon Harvest in the Ketchikan Management Area

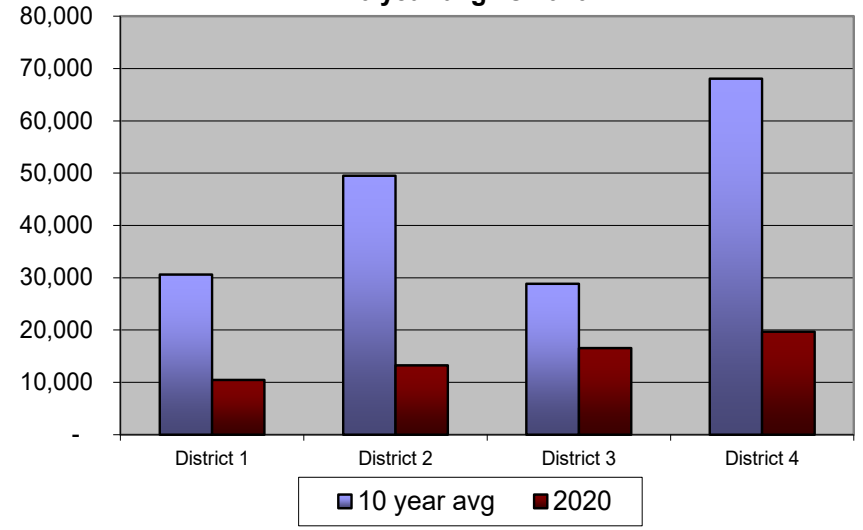


# Purse Seine Traditional Harvest by District by Species

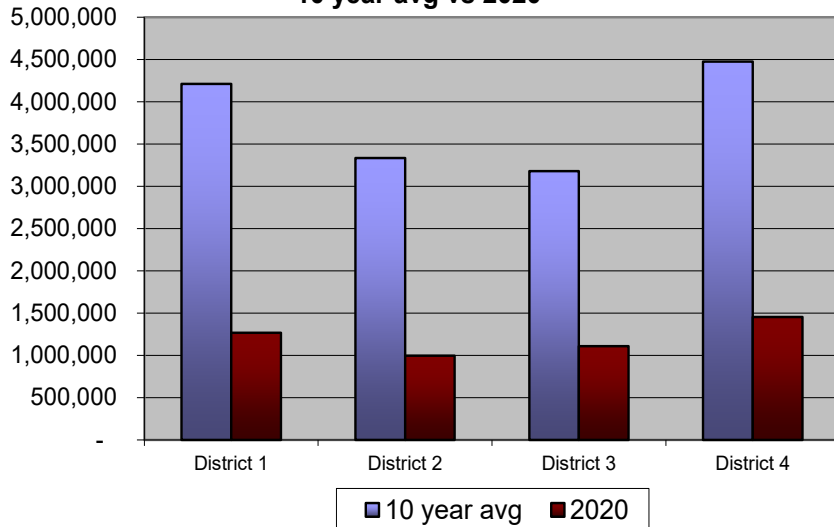
**Purse Seine Sockeye Harvest  
10 year avg vs 2020**



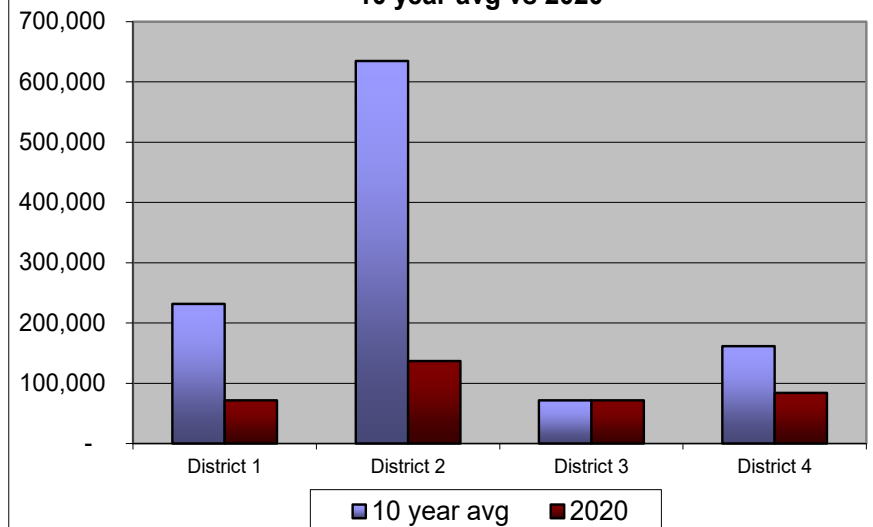
**Purse Seine Coho Harvest  
10 year avg vs 2020**



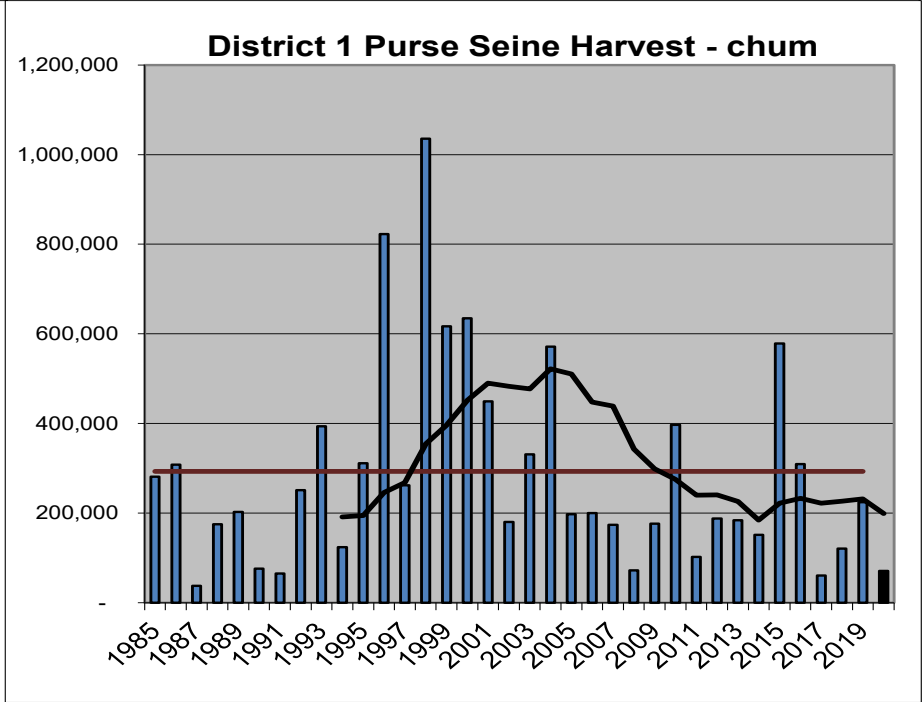
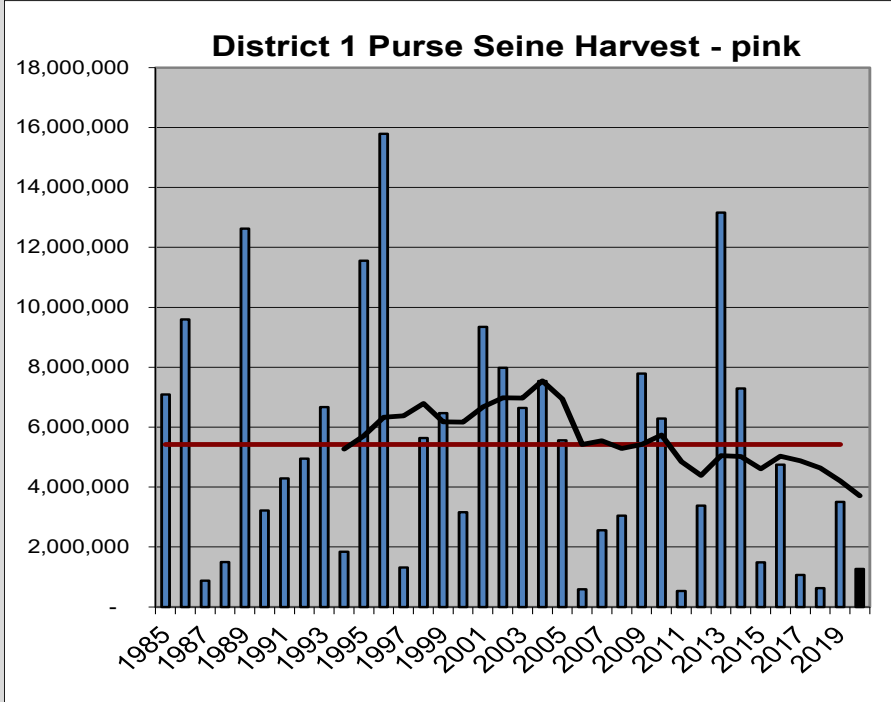
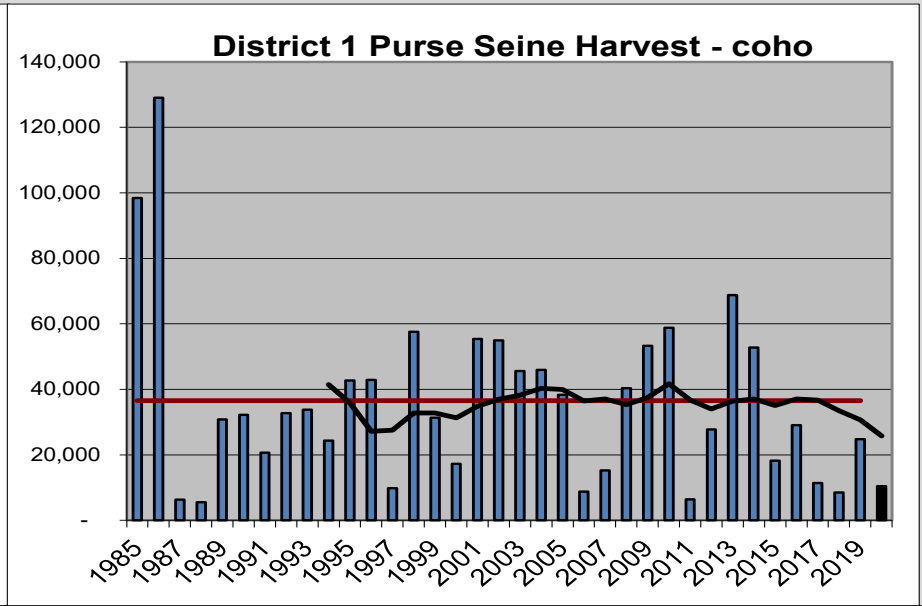
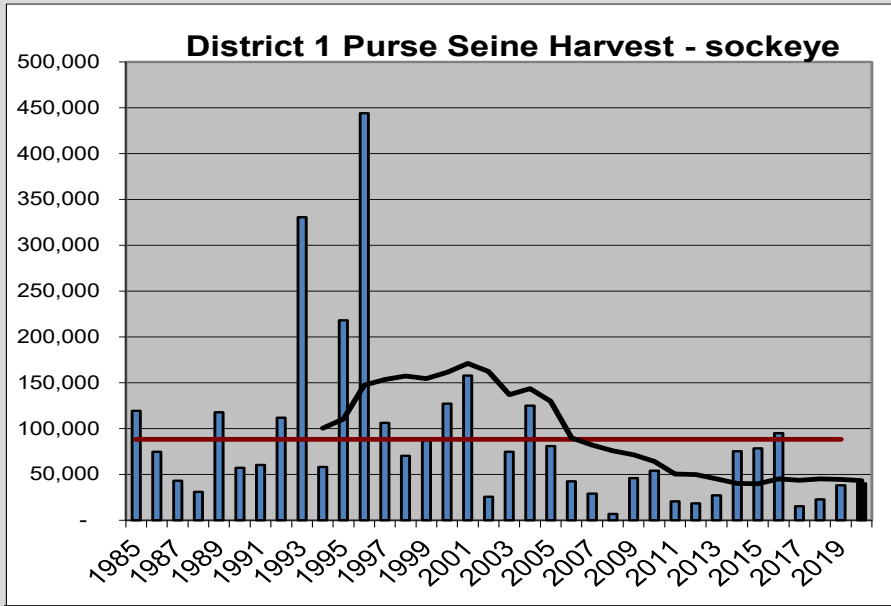
**Purse Seine Pink Harvest  
10 year avg vs 2020**



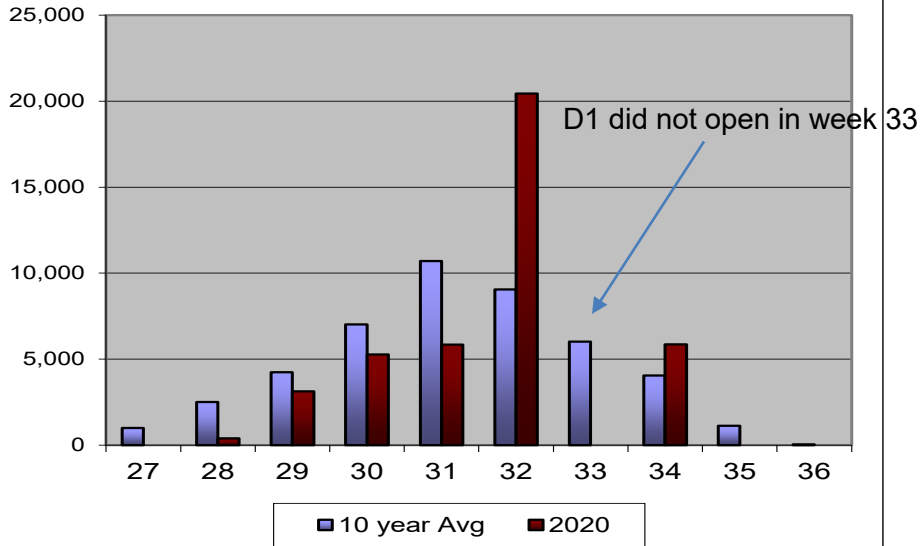
**Purse Seine Chum Harvest  
10 year avg vs 2020**



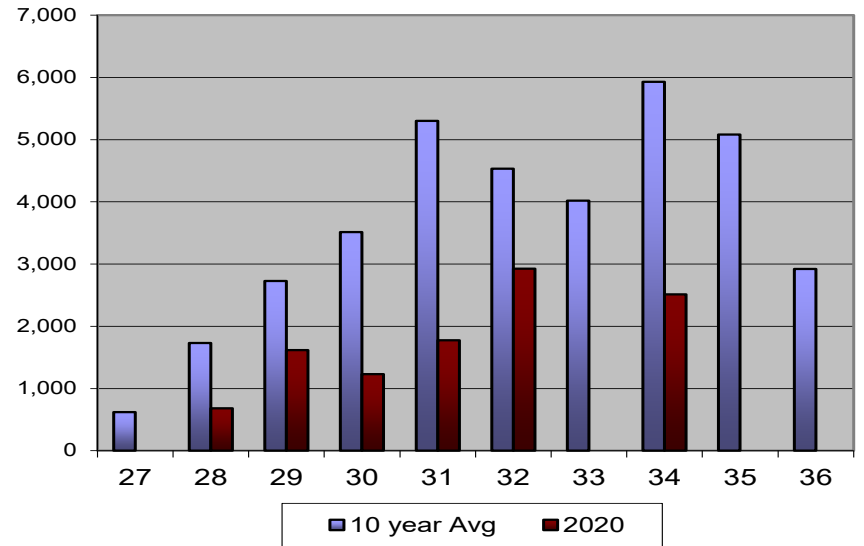




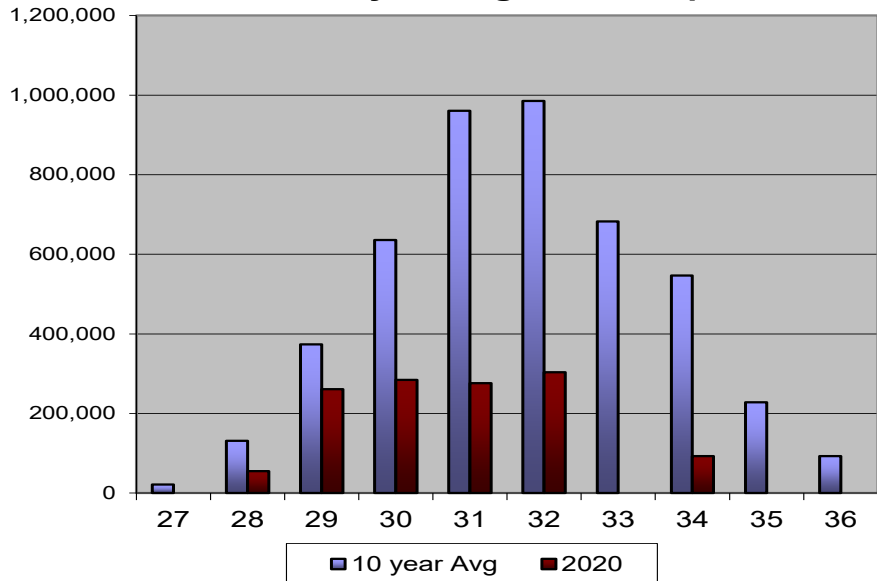
**District 1 Purse Seine Weekly Harvest  
10 year avg vs 2020 - sockeye**



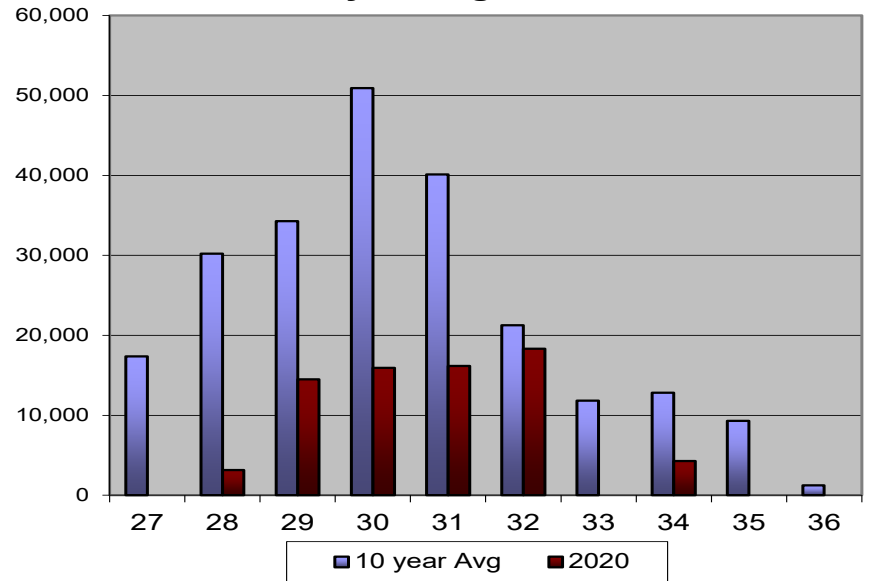
**District 1 Purse Seine Weekly Harvest  
10 year avg vs 2020 - coho**



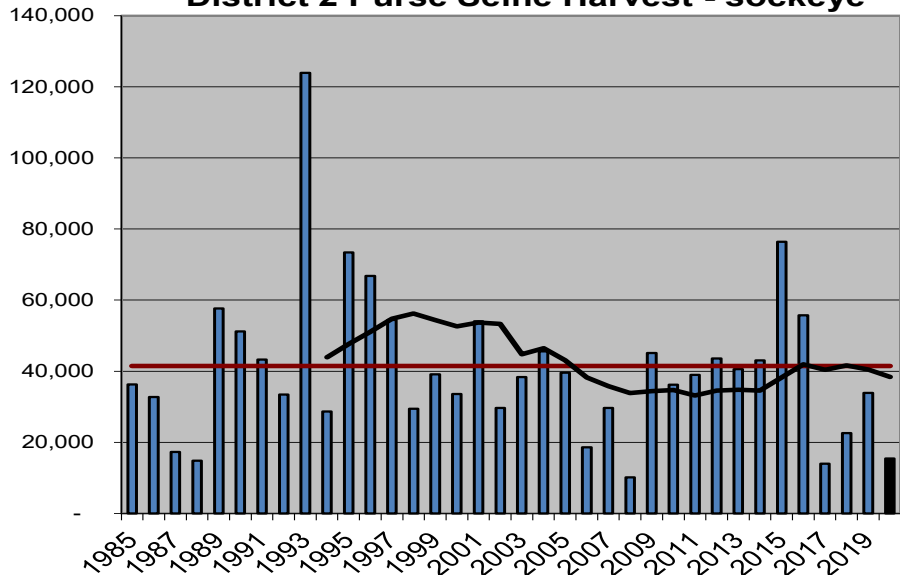
**District 1 Purse Seine Weekly Harvest  
10 year avg vs 2020 - pink**



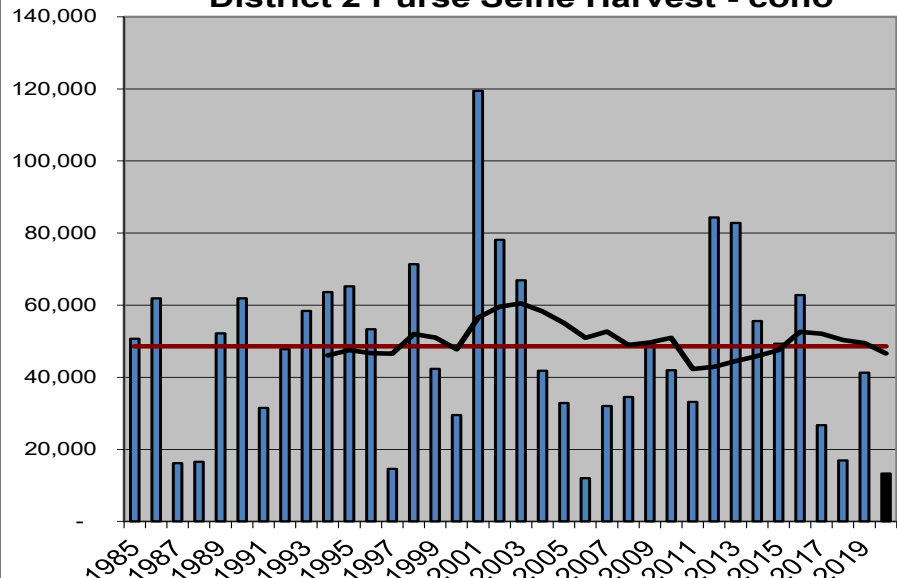
**District 1 Purse Seine Weekly Harvest  
10 year avg vs 2020 - chum**



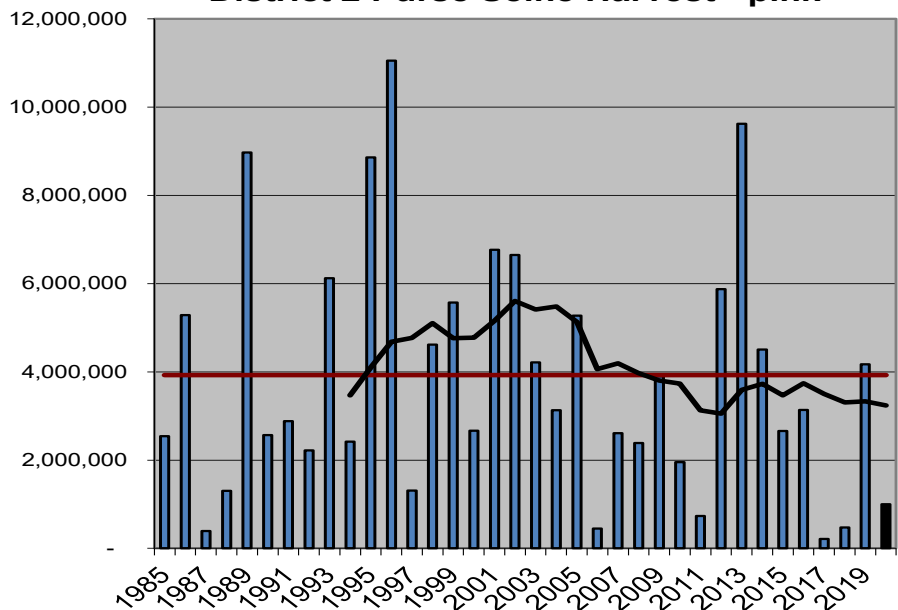
**District 2 Purse Seine Harvest - sockeye**



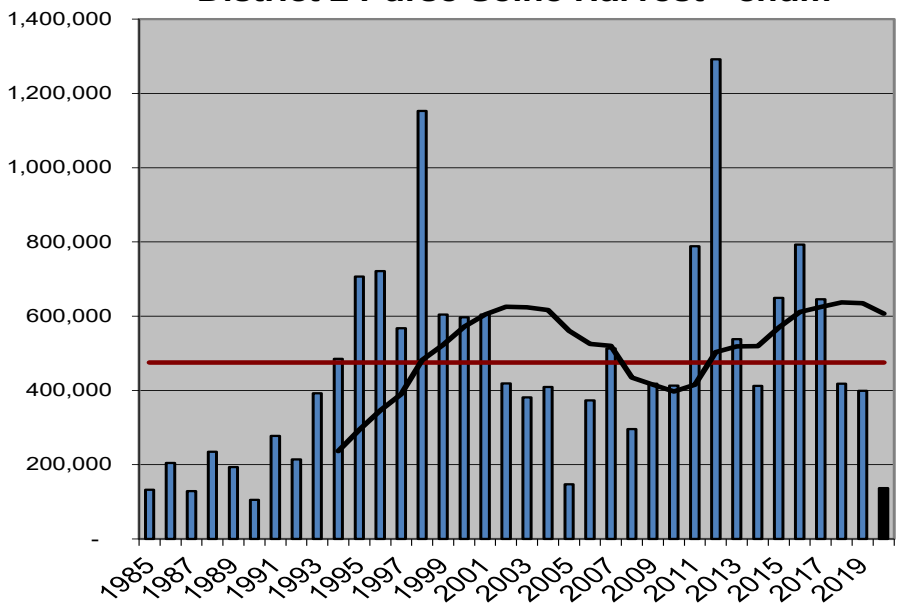
**District 2 Purse Seine Harvest - coho**



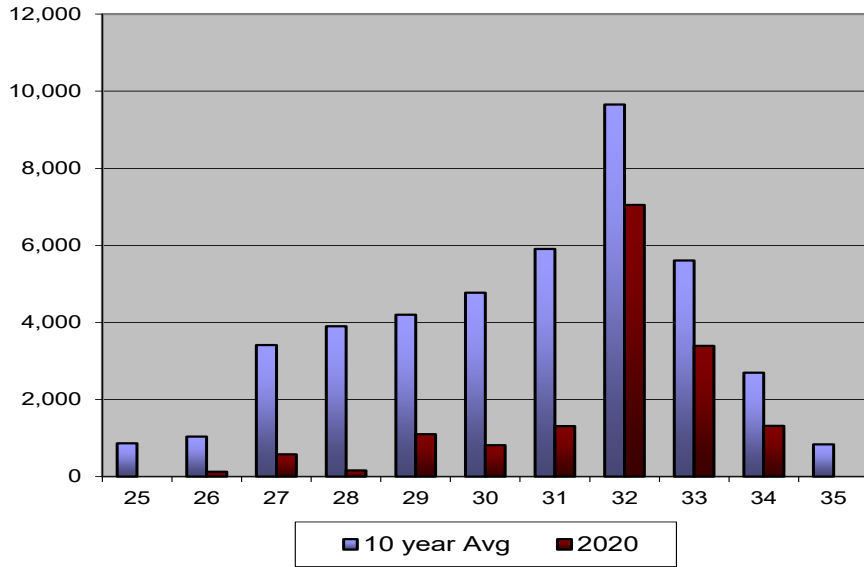
**District 2 Purse Seine Harvest - pink**



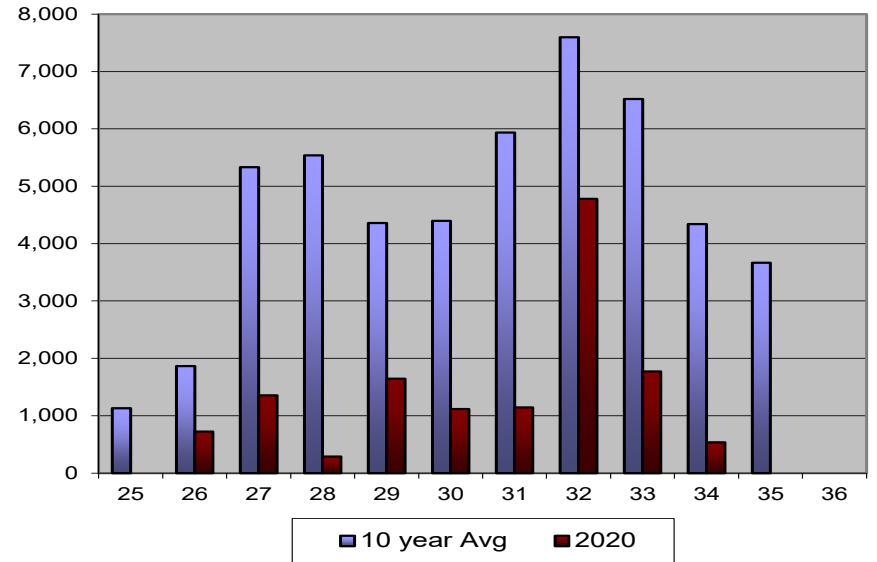
**District 2 Purse Seine Harvest - chum**



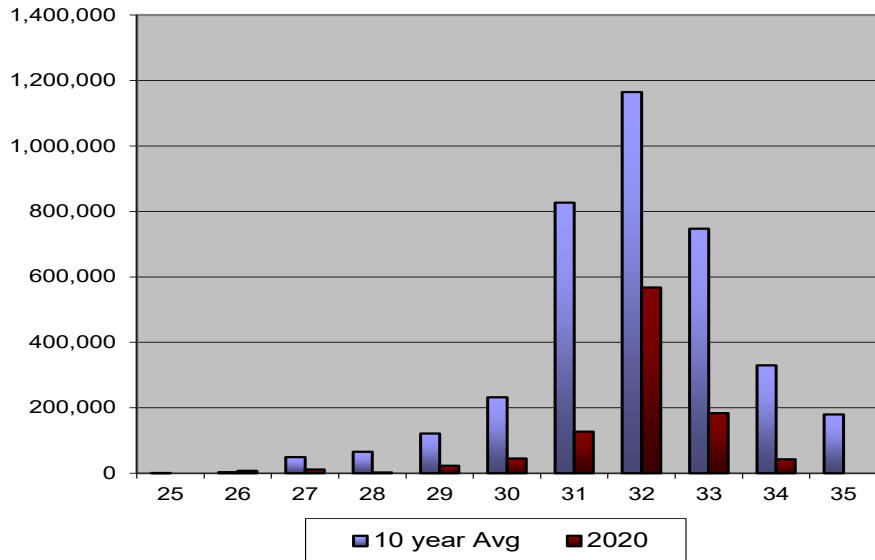
**District 2 Purse Seine Weekly Harvest  
10 year avg vs 2020 -sockeye**



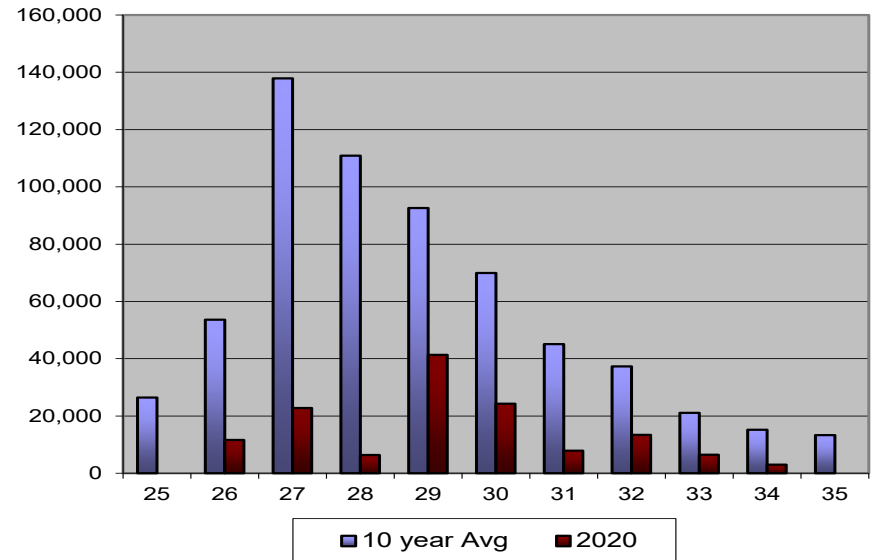
**District 2 Purse Seine Weekly Harvest  
10 year avg vs 2020 -coho**



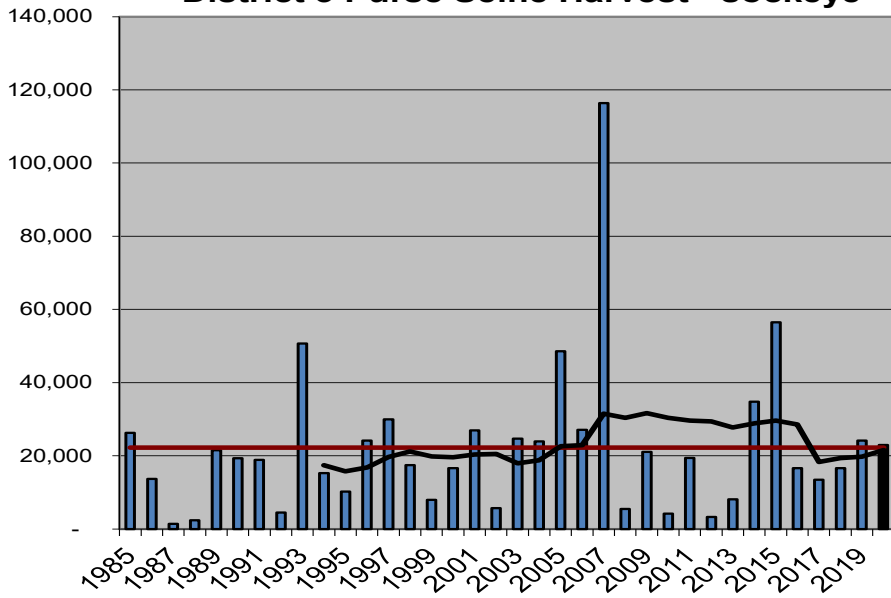
**District 2 Purse Seine Weekly Harvest  
10 year avg vs 2020 -pink**



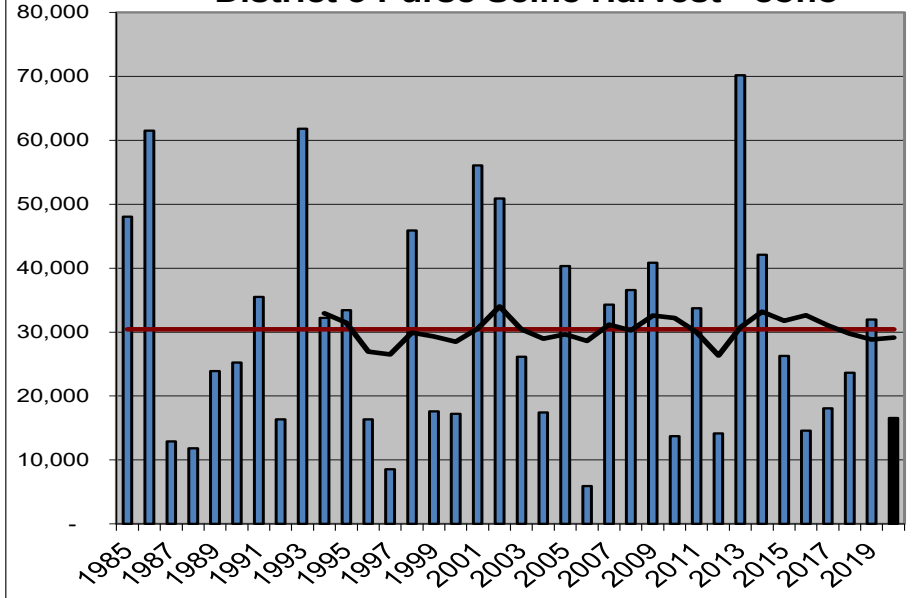
**District 2 Purse Seine Weekly Harvest  
10 year avg vs 2020 -chum**



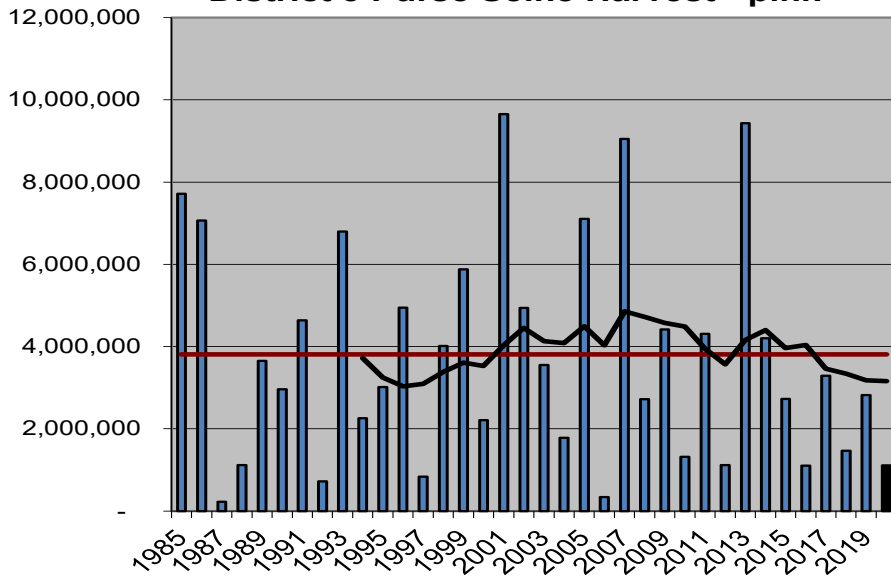
**District 3 Purse Seine Harvest - sockeye**



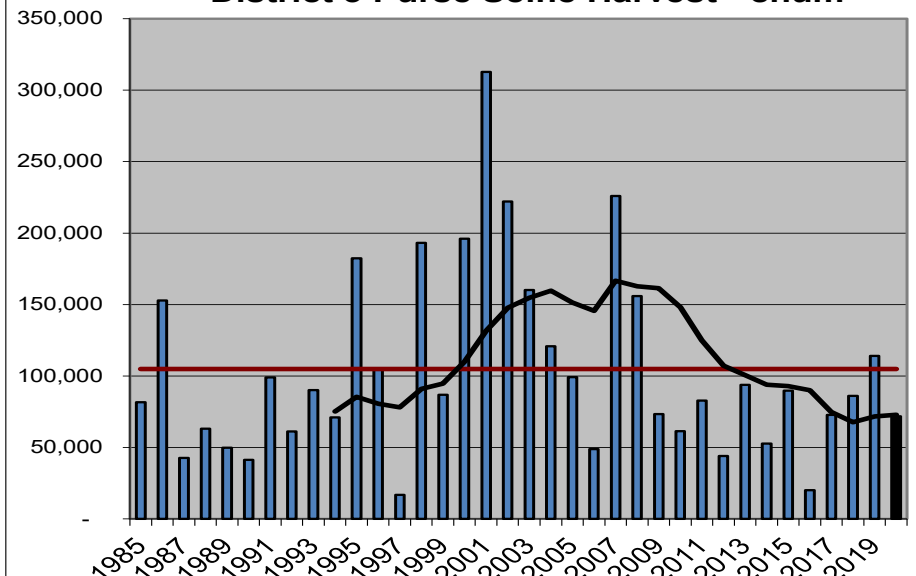
**District 3 Purse Seine Harvest - coho**



**District 3 Purse Seine Harvest - pink**

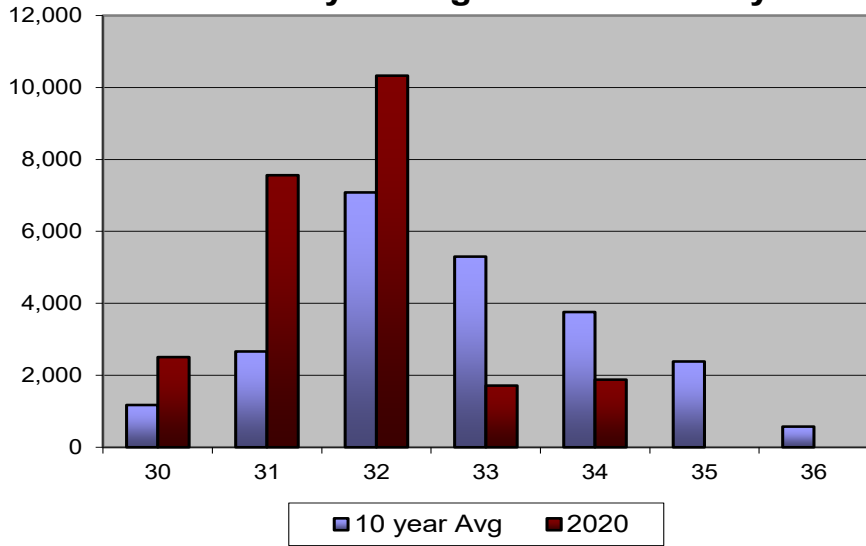


**District 3 Purse Seine Harvest - chum**

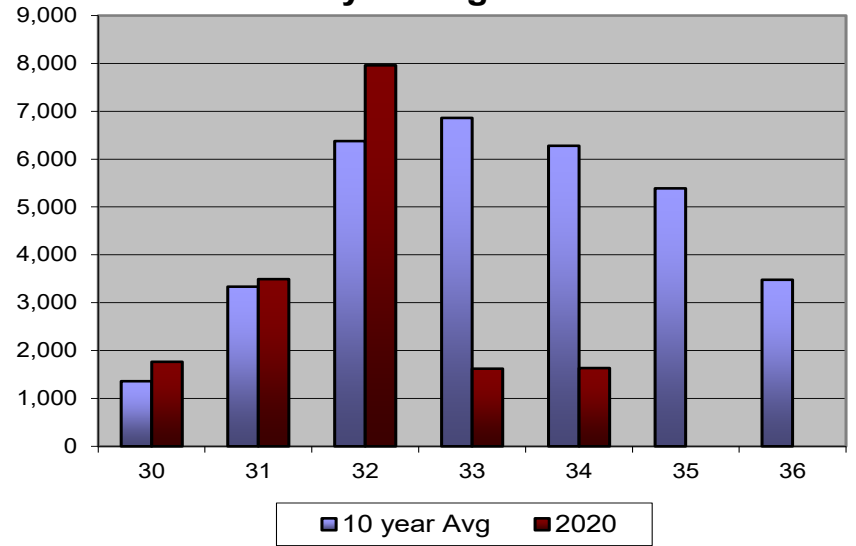




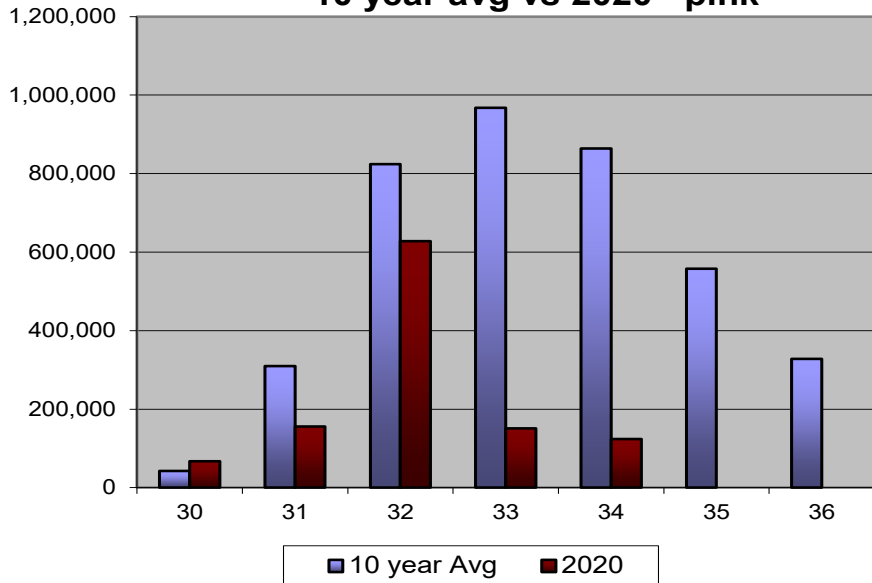
**District 3 Purse Seine Weekly Harvest  
10 year avg vs 2020 - sockeye**



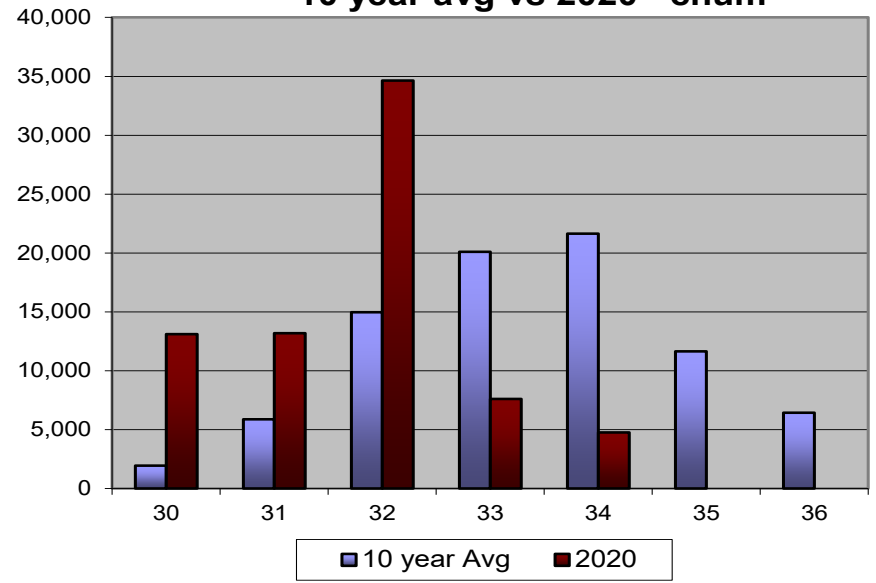
**District 3 Purse Seine Weekly Harvest  
10 year avg vs 2020 - coho**



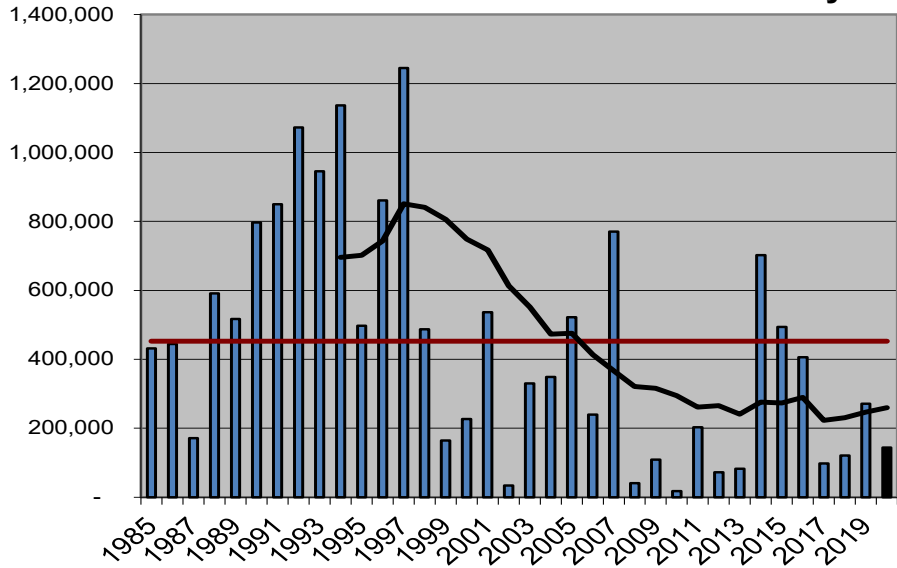
**District 3 Purse Seine Weekly Harvest  
10 year avg vs 2020 - pink**



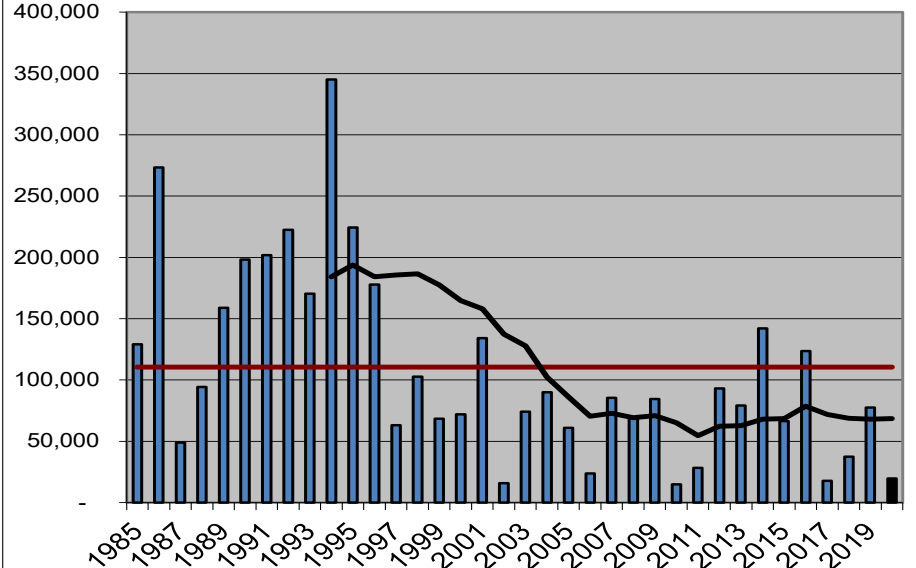
**District 3 Purse Seine Weekly Harvest  
10 year avg vs 2020 - chum**



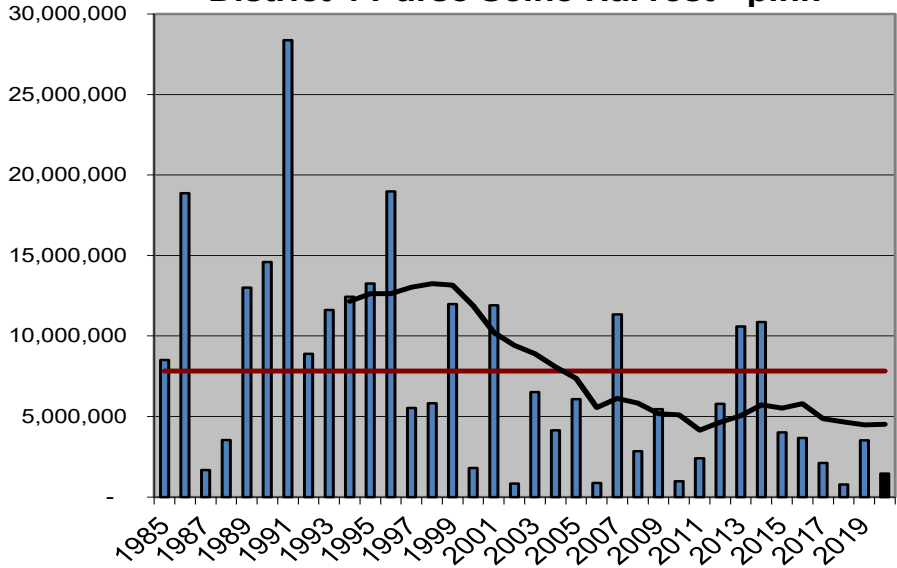
**District 4 Purse Seine Harvest - sockeye**



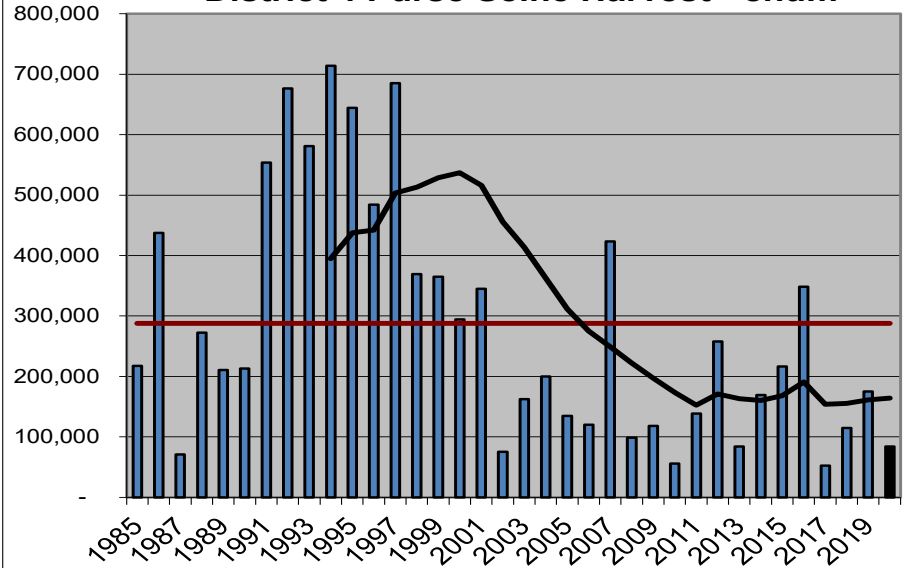
**District 4 Purse Seine Harvest - coho**



**District 4 Purse Seine Harvest - pink**



**District 4 Purse Seine Harvest - chum**

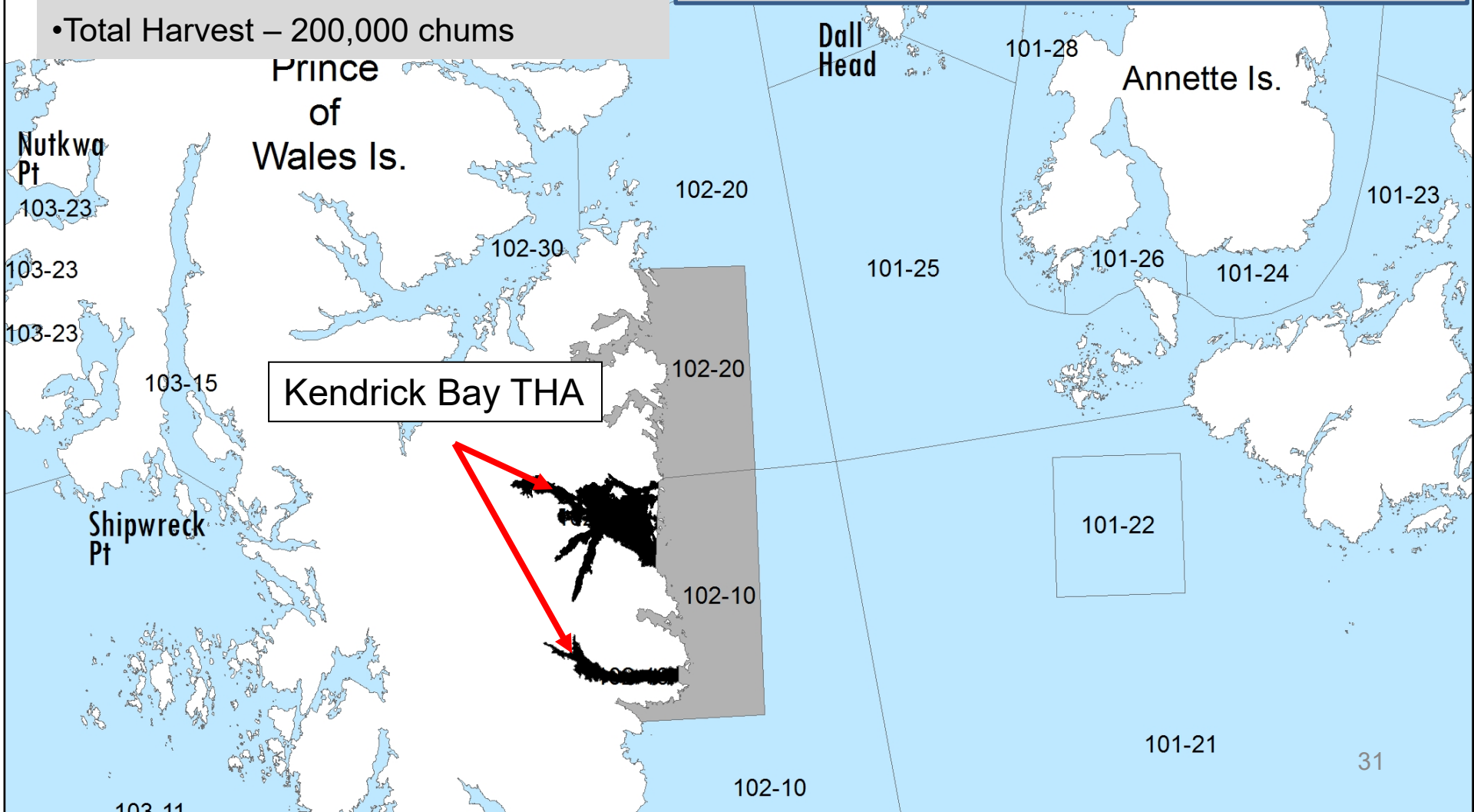


# Kendrick Bay 2020

- Projected return – 451,600 chums
- THA Harvest – 62,482 chums
- Traditional PS Harvest – 121,378 chums
- Total Harvest – 200,000 chums

Outside Kendrick Bay Fishery

Opening	Chinook	Sockeye	Coho	Pink	Chum	Boats	Hours
25	0	50	182	270	470	17	87
26	0	327	965	1,946	7,495	47	87
27	0	327	448	3,605	7,914	41	15
27B	0	155	162	2,459	4,869	21	15



Kendrick Bay THA

# New Northern Boundary Treaty Language for 2019 Pertinent to D4 seine:

- Federal Funding. Previous versions failed to identify funding.
- Treaty extended through 2028, unless both parties agree that modifications are required, then a five year review.
- Establishes in treaty language what is already being done with regards to Canada providing the pre-season run forecast for both the Nass and Skeena rivers.
- Review of D4 pink salmon fishery.
  - New agreement stipulates the U.S. will complete a review that evaluates long-term changes in abundance of pink salmon stocks; changes in timing, location of harvest, impacts of pink harvest on Nass/Skeena sockeye, and efficacy (if any) of assessing pink salmon run timing through D4 using available data.
- Establishes in the treaty what was done in 2017 and 2018 with regards to low pre-season forecasts, specifically:
  - Expected total run is below 900,000 sockeye salmon. At this level, there are no Canadian commercial marine harvests. The United States shall undertake measures to reduce the impact of the D104 purse seine fishery, which may include delaying the start date and duration of the fishery.
  - Expected total run is below 600,000 sockeye salmon. At this level, there are no Canadian marine or in-river commercial harvests with the exception of terminal fisheries adjacent to enhancement spawning channels. The United States shall undertake additional measures to reduce the impact of the D104 purse seine fishery, which may include delaying the start date and duration of the fishery, and/or reducing the fishing area.
- Review of current run reconstruction model. Less complex model with the accuracy of genetic stock id.