Division of Commercial Fisheries
Sam Rabung, Director

Anchorage Office
333 Raspberry Road
Anchorage, AK 99518

Alaska Department of Fish and Game
Doug Vincent-Lang, Commissioner

PO Box 115526
Juneau, AK 99811-5526
www.adfg.alaska.gov

Advisory Announcement

For Immediate Release:
September 29, 2021

Time: 1:00 p.m.

CONTACT:
Tim Sands, Nushagak/Togiak Area Biologist
Travis Elison, Naknek-Kvichak Area Biologist
Aaron Tiernan, Egegik/Ugashik Area Biologist
(907) 842-5227

2021 BRISTOL BAY SALMON SEASON SUMMARY

The following is an overview of the 2021 Bristol Bay commercial salmon season and all data are preliminary. The 2021 inshore Bristol Bay sockeye salmon run of 66.1 million fish (Table 1) is the largest total run on record and was 60% above the 41.3 million average run for the latest 20-year period (2001–2020). Additionally, it was just the third time, on record, the Bristol Bay inshore sockeye salmon run has exceeded 60.0 million fish.

The 2021 Bristol Bay sockeye salmon run was 32% above the preseason inshore forecast of 50.0 million fish (Table 2). Runs to every district, except Egegik, were larger than the preseason forecast. The commercial harvest of 40.4 million sockeye salmon (Table 1) was 11% above the 36.4 million preseason forecast, is the fifth largest harvest on record, and the third time in the last four years that the harvest has exceeded 40.0 million fish. All sockeye salmon escapement goals were met or exceeded, with a total bay-wide escapement of 25.7 million fish (Table 3). The preliminary harvest estimates for other species are 6,100 Chinook, 316,600 chum, 47,900 coho, and 3,300 pink salmon (Table 1).

EXVESSEL VALUE

Exvessel value of salmon caught in Bristol Bay in 2021 was estimated using the weight, harvest, and price paid for each species. The 2021 Bristol Bay preliminary exvessel value of $247.7 million for all salmon species (Table 4) ranks fourth in the last 20 years and was 64% above the 20-year average of $150.9 million. The 40.8 million harvest of all salmon species (Table 1) was the fourth largest harvest since 2000. Prices are an average of postseason processor final operations reports and do not include future price adjustments for icing, bleeding, or production bonuses.

SPECIES PERFORMANCE

Sockeye Salmon

The 2021 harvest of 40.4 million sockeye salmon was 44% higher than the recent 20-year average of 28.0 million for all districts (Table 5). Sockeye salmon escapement goals were met on the Kvichak, Alagnak, and Egegik Rivers and all other systems exceeded their respective escapement goal ranges (Table 3). Inshore run timing to Bristol Bay this season was not as late as in recent years and aligned more with historical average timing in most districts. This helped the fishery to operate at full capacity for the entire season.

The 2021 Bristol Bay sockeye salmon run was dominated by the 1.2 and 1.3 age classes, or fish with one year of freshwater residence and two or three years of ocean growth. The 1.2 age class was the largest component of the 2021 run at roughly 60% and came in over the preseason forecast of 47%. Fish with two

years of freshwater residence (2.2s and 2.3s) nearly reached their preseason forecasts of 10% and 4% of the run, respectively. Average weight for sockeye salmon was roughly a pound less than their most recent 20-year average of 5.7 pounds (Table 4).

Chinook Salmon

Chinook salmon harvested in Bristol Bay this season were incidentally caught during directed sockeye salmon fishing periods. The Nushagak District, which is the main contributor of Chinook salmon in Bristol Bay, was actively managed this season to reduce Chinook salmon harvest in an effort to ensure achievement of the established escapement goal for the Nushagak River. Overall, the 2021 Chinook salmon harvests were below average in all districts of Bristol Bay (Table 6). A preliminary total of 6,100 Chinook salmon were harvested, which is below the most recent 20-year average of 43,100 fish (Table 6), and the lowest since 1955. The Nushagak District Chinook salmon harvest was 4,100 fish, which is well below the 20-year average harvest of 34,600 fish (Table 6).

The Nushagak River Chinook salmon inriver run estimate at Portage Creek Sonar was 55,222 fish, which likely does not allow the escapement goal of 55,000–120,000 to be met when upstream harvest is eventually subtracted. However, it is likely that many Chinook salmon went undetected at the sonar because they were masked by the record high sockeye salmon passage. High sockeye salmon passage saturates the test fishing nets at the sonar project, a situation shown to bias the Chinook salmon count low in previous years. This is supported by reported inseason sport fish catch rates along with postseason aerial surveys indicating that the run was larger than the final sonar count.

Chum Salmon

The 2021 preliminary Bristol Bay chum salmon harvest was 316,600 fish (Table 1), which was below the latest 20-year average of 1.1 million fish. The Nushagak District was the largest producer of chum salmon, where 211,400 fish were harvested (Table 1). The Nushagak River chum salmon escapement of 125,400 fish was below the lower bound escapement goal of 200,000 fish.

Pink Salmon

There was not a significant amount of pink salmon present in 2021, as they are typically an even year dominant species in Bristol Bay.

Coho Salmon

The preliminary coho salmon harvest in 2021 was 47,900 fish (Table 1), which was below the latest 20-year average of 95,600 fish. The Nushagak District is typically the largest producer of coho salmon, as was the case in 2021. Coho salmon harvest in the Nushagak District was 28,100 fish (Table 1). Harvests of coho salmon can be variable from year to year depending on processor availability, market conditions, and overall fishing effort.

ALLOCATION

Bristol Bay fisheries are managed for allocation (secondary to escapement) between drift and set gillnet gear groups in four of five districts. Togiak District is excluded from the allocation plan. Strategies used to achieve allocation between gear groups included varying the amount of fishing time and providing separate gear group openings. The Egegik and Ugashik District harvest percentages were relatively close to their established allocation goals, while the Nushagak and Naknek-Kvichak Districts had the largest differential from the harvest percentages found in regulation (Table 7). During seasons of large sockeye returns, allocations can be difficult to achieve because the primary objective is managing to meet established escapement goals.

Acknowledgements

The department would again like to thank the Bristol Bay Fisheries Collaborative (BBFC) for their funding assistance over the last several years. Created in 2016, BBFC provided financial support to assist management of the salmon fishery. BBFC was an agreement between the department and the Bristol Bay Science and Research Institute (BBSRI) to work together and with stakeholders to restore a world class fisheries management system and raise funds for its support and maintenance. Additionally, the department would like to thank BBSRI and Bristol Bay Regional Seafood Development Association for their funding and efforts to operate the Port Moller Test Fishery. Included with these efforts was the deployment of a second vessel that provided a better index of the arrival timing, abundance, and stock composition of this year's return than was possible with a single vessel. Additionally, a large effort was taken by BBSRI to install an experimental genetic laboratory on board the R/V Ocean Cat. If the results from this lab prove viable, genetic data would be timelier for management of the fishery as well as reducing logistical challenges for the overall project.

Table 1.–Preliminary 2021 Bristol Bay salmon harvest and escapement by district and species.

District	Sockeye	Chinook	Chum	Pink	Coho	TOTAL
Naknek-Kvichak catch	8,959,142	604	30,745	134	693	8,991,318
Escapement-Kvichak tower	4,703,520	ND	ND	ND	ND	4,703,520
Naknek tower	2,796,534	ND	ND	ND	ND	2,796,534
Alagnak tower	3,236,904	ND	ND	ND	ND	3,236,904
NK subtotal	19,696,100	604	30,745	134	693	19,728,276
Egegik catch	8,063,855	318	28,258	260	15,464	8,108,155
Escapement-Egegik tower	1,832,196	ND	ND	ND	ND	1,832,196
Egegik subtotal	9,896,051	318	28,258	260	15,464	9,940,351
Ugashik catch	5,034,422	358	24,265	10	45	5,059,100
Escapement-Ugashik tower	2,859,930	ND	ND	ND	ND	2,859,930
Ugashik subtotal	7,894,352	358	24,265	10	45	7,919,030
Nushagak catch	17,651,153	4,103	211,417	967	28,113	17,895,753
Escapement-Wood tower	4,410,156	ND	ND	ND	ND	4,410,156
Igushik tower	878,952	ND	ND	ND	ND	878,952
Nushagak sonar	4,697,299	55,222	125,352	ND	ND	4,877,873
Nushagak subtotal	27,637,560	59,325	336,769	967	28,113	28,062,734
Togiak catch	673,571	725	21,913	1,892	3,556	701,657
Escapement - Togiak tower	280,836	ND	ND	ND	ND	280,836
Togiak subtotal	954,407	725	21,913	1,892	3,556	982,493
Bristol Bay catch	40,382,143	6,108	316,598	3,263	47,871	40,755,983
Bristol Bay escapement	25,696,327	55,222	125,352	0	0	25,876,901
Bristol Bay total run	66,078,470	61,330	441,950	3,263	47,871	66,632,884

Note: Nushagak sonar enumerated Chinook, sockeye, and chum salmon in 2021. ND means no data.

Table 2.–Difference between Bristol Bay sockeye salmon actual inshore run and preseason forecast by district, 2021.

District	Inshore forecast	Inshore run	% Above/below forecast
Naknek-Kvichak	17,000,000	19,696,100	16% Above
Egegik	10,960,000	9,896,051	9% Below
Ugashik	6,520,000	7,894,352	21% Above
Nushagak	14,760,000	27,637,560	87% Above
Togiak	800,000	954,407	19% Above
Total	50,040,000	66,078,470	32% Above

Table 3.–Bristol Bay sockeye salmon escapement goals and actual escapements, 2021.

River system	Escapement goal range	Escapement
Kvichak River	2,000,000–10,000,000	4,703,520
Naknek River	800,000–2,000,000	2,796,534
Alagnak River	320,000 minimum	3,236,904
Egegik River	800,000–2,000,000	1,832,196
Ugashik River	500,000–1,400,000	2,859,930
Nushagak River	370,000–900,000	4,697,299
Wood River	700,000–1,800,000	4,410,156
Igushik River	150,000–400,000	878,952
Togiak River	120,000–270,000	280,836
Total		25,696,327

Table 4.–Average price, weight, harvest, and value of salmon harvest in Bristol Bay, 2021.

Species	Price/lb.	Average weight (lb.)	Number of fish	Total weight	Value
Sockeye	$1.25	4.89	40,382,143	197,468,679	$246,835,849
Chinook	$1.02	11.69	6,108	71,403	$72,831
Chum	$0.40	5.33	316,598	1,687,467	$674,987
Pink	$0.17	2.42	3,263	7,896	$1,342
Coho	$0.45	6.13	47,871	293,443	$132,052
Total			40,755,983	199,528,895	$247,717,061

Table 5.–2021 Preliminary commercial sockeye salmon harvests and 20-year average by district.

District	2001–2020 Average sockeye harvest	2021 Sockeye salmon harvest
Naknek-Kvichak	8,912,232	8,959,142
Egegik	7,507,747	8,063,855
Ugashik	2,924,734	5,034,422
Nushagak	8,040,580	17,651,153
Togiak	605,907	673,571
Total	27,991,200	40,382,143

Table 6.–2021 Chinook salmon preliminary harvest data and 20-year average by district.

District	2001–2020 Average Chinook salmon harvest	2021 Chinook salmon harvest
Naknek-Kvichak	1,714	604
Egegik	784	318
Ugashik	996	358
Nushagak	34,632	4,103
Togiak	4,970	725
Totals	43,096	6,108

Table 7.–Allocation of Bristol Bay drift and set gillnet harvest, 2021.

District	Drift gillnet percent of harvest allocated /caught	District set gillnet percent of harvest allocated /caught	Section set gillnet percent of harvest allocated /caught
Naknek-Kvichak	84% / 75%	16% / 25%	Naknek: 8% / 13% Kvichak: 8% / 12%
Egegik	86% / 84%	14% / 16%	–
Ugashik	90% / 87%	10% / 13%	–
Nushagak [a]	74% / 81 %	26% / 19%	Nushagak: 20% / 16% Igushik: 6% / 3%

[a] Wood River Special Harvest Area harvest was entirely set gillnet and is included in the 19% listed above.