Annual Report for the 2023 Port Moller Test Fishery

	Daily Catch Index by Station (Est. catch from the 200 fathom net if it had fished for 1 hr)												Mean Daily Catch Index Avg. Indices Across Stations
Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	S24	(Stns 2-22)
10-Jun													
11-Jun									0	0	0		3
12-Jun	0	4	7		6				9	0			4
13-Jun	2	2	8	5	16	30	0	0	0	0			6
14-Jun	4	0	18	17	124	0	5	0	2	0	0		15
15-Jun	0	41	84	2	0	0	2	0	0	0		0	12
16-Jun	0	99	20					0	0	0	1		23
17-Jun	9	115	0	2	6	0	2	0	4				13
18-Jun	0	45	0	82	156	0	0	0	13	0			27
19-Jun	0	265	282	227	158	139	0	0	0				97
20-Jun	0	62	62	75	22	0	5	2	0				21
21-Jun	0	62	290	60	23	0	0	0	7				40
22-Jun	0	47	10	88	16	2	0	0	0				15
23-Jun	0	162	69	103	108	162	0	5	2	0	8	2	56
24-Jun	2	223	100	216	25	132	6	0	8	0	8	2	65
25-Jun	23	111	151	128	53	45	0	23	7	2	0		49
26-Jun	0	251	166	16	66	43	12	5	0	0			51
27-Jun	5	123	124	39	175	44	58	0	0				52
28-Jun	0	305	292	159	53	57	47	0	0				84
29-Jun	0	214	143	209	306	145	47	5	0	0			97
30-Jun	0	34	284	243	71	94	126	10	14				81
1-Jul													78
2-Jul		62	193	133	263	9	5	0	0				63
3-Jul	0	19	166	217	269	72	0	43	5	66	58	15	83
4-Jul	0	46	35	48	93								38
5-Jul	4	0	35	47	11	35	77	36	2	23	0		25
6-Jul	0	0	111	128	210	118	21	64	0	8			61
7-Jul	5	21	133	64	46	14	49	0	0	0	67		36
8-Jul			28			34	2	82	2	0	0		27
9-Jul		2	21	19	76				0				19
10-Jul	2	5	71	31	46	32	0	2	0	40	0	0	21
11-Jul	7	0	94	53	0	17	2	0	5	13	6	15	18
12-Jul	0	0	9	43	29	9	2	4	7	0	0		9
13-Jul	7	2	10	22	104	5	0	4	5	9	40		19

BBSRI

April 2024

Annual Report for the 2023 Port Moller Test Fishery

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Executive Summary

In 2023, the Port Moller Test Fishery (PMTF) operated from June 11 to July 13 using two research vessels—the R/V Ocean Cat and the R/V Miss Leona. A total of 6,670 Sockeye were caught in 300 sets distributed across Stations 2-24 to provide the information used for inseason forecasting. An additional 12 sets made at and near Station 10 during June 19 and June 22 produced 414 Sockeye and helped to assess sampling error at a single station versus nearby patchiness in the passage rate. The coverage of stations and days during the 2023 test fishery was only surpassed by 2022, with only one day missed during mid-season due to weather.

The email distribution list ended the season with 1,228 email addresses, up about 11% over 2022. The median time between sample collection and stock composition release to the distribution list was a single day during the 2023 season (similar to 2022); the maximum lag time was only two days. The turnaround time for 2023 estimates was about two days faster than what has been observed since 2010. Over the entire season a total of 12 estimates were released (about three more than in previous years). The reduced turnaround time between genetic tissue collection at the PMTF and release of the stock composition estimates, as well as increased frequency and number of estimates for 2022 and 2023 was due entirely to the onboard genetics lab that allowed genotyping to be done at sea.

On June 20 and June 25, we estimated the weights of the average Sockeye passing the test fishing transect to be 5.6 lbs. These estimates agreed with the 5.5 lbs reported for inshore catch by ADF&G in their season summary. Likewise, the estimated age and stock compositions based on the PMTF reflected that of the inshore run very well.

The 2023 run was 54.5 million with 50% of C+E occurring by July 6 making it 2-days late if July 4 is the date we use to reference an “average” run timing. Run timings over the previous eight years (2015-2022) have been late (mean=3.8 days late; range=1-6). The seasonal pattern in the 2023 run was similar to 2017 and 2021 in that a dramatic increase in C+E occurred in early July following a drop off in late June mostly due to the Nushagak-Wood District. Dissimilar to any other run going back to 2011, was the subsequent multimodal pattern having substantial peaks on July 10 and 14. Unlike other years when the outer stations were fished (2018-2022) a strong second mode of catches did not occur beyond Station 12. Although, catches did increase offshore slightly compared to inshore after June 30.

Like 2022, the Daily Index was not indicative of the entry pattern for C+E during 2023. As such, we forewent publishing proximate forecasts of daily C+E during 2023. Seasonal shifts in the travel time (TT) between the test fishery and inshore likely caused fish to stack outside the districts before surging in causing the multimodal pattern in C+E that was not apparent in the Port Moller signal. Alternately, catchability unknowingly changed, which altered the return-per-index (RPI=the number of fish inshore that each catch index point at Port Moller represents). In other words, the passage rate increased more or less consistently and then subsided as the season progressed, but our ability to catch passing Sockeye likely fluctuated during the season.

Recommendations for project scope in 2024:

- Continue to sample stations across the entire fishing transect as time and effort allow using two vessels large enough to stay on the fishing transect.
- Use "smart buoys" fixed to both top ends and one bottom end of each gillnet. The surface buoys will be attached near the existing trailing floats and therefore cause no increase in the nets' profiles. The bottom buoys can be covered with a bait bag to reduce visibility. These devices will provide:
  - Redundant sea surface temperatures to within 1/0th of a degree for each set.
  - Temperature and possibly salinity differences between the surface and bottom of the nets. Such differences may indicate the development of a thermocline.
  - Better estimates of sea state (wave height).
  - GPS coordinates that will inform us how much the net drifted in on itself (i.e., their distance apart at the beginning versus the end of each set), the direction and distance each set drifted, and how much net orientation shifted.
- Continue sampling at odd stations as time and energy allows. More samples from odd stations adjacent to an even station over consecutive days would help test the degree to which the run forms braids in the migration pattern across the transect consistent across several days. Such a phenomenon could bias the Daily Catch Index that is currently formed from a systematic sampling design at fixed stations across the transect.

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Introduction

The Port Moller Test Fishery (PMTF) has been conducted since 1967 with drift gillnets set at fixed stations offshore from Port Moller, Alaska (Figure 1; Randall 1977; Eggers and Fried 1984). Historically, the primary goal has been to predict run strength of Sockeye Salmon (*Oncorhynchus nerka*) traveling past Port Moller approximately one week prior to their arrival in the various terminal commercial fishing districts of Bristol Bay. The PMTF typically operates from around June 10 through July 10 each year, although the end date has been extended starting in 2019.

Results from the PMTF give Bristol Bay processors, fishermen, and the Alaska Department of Fish and Game (ADF&G) time to respond to suspected departures from the preseason forecasts. Though the data from the PMTF is not the primary basis of decision making upon which the individual district fisheries are prosecuted, managers use it for an indication of overall and stock-specific run strength (composed of inshore commercial catch and escapement or "C+E"). In addition, this information is used by fishermen when deciding which districts to fish and helps processors anticipate where among Bristol Bay fishing districts to assign their tendering capacity.

This annual report describes the project's objectives, how the test fishery works, the results from 2023 including insights that affect the performance of the test fishery, and recommendations for the study design and data collection in the upcoming season. This annual report stems from our ongoing goal of adaptive management of the research protocols for the PMTF to improve the utility of the project. In these annual reports, we "show our work" for our technical peers, the fishermen and companies in the fishing industry who fund the project and use the data for their business decisions, and our future selves as we continue to learn. As such, the report attempts to provide information for readers from a range of backgrounds. It has been the vigilance of documenting the project on an annual basis that has led to several significant improvements in the design and execution of the project and, ultimately, to better information for fishery managers and those in the salmon industry.

Primary Information from PMTF

Historically, information from the test fishery is combined with other information gathered inshore (C+E) to provide six descriptors of the Sockeye Salmon run each year: (1) magnitude, (2) timing, (3) entry pattern, (4) stock composition, (5) age composition, and (6) the estimated weight of the average Sockeye caught at the test fishery.

Run magnitude (abundance), stock and age compositions, and average weight are self-explanatory. Run timing (early or late) is defined by how the date on which 50% of the run has occurred inshore compared to July 4 (historically, the date by which about half of the run has appeared). Entry pattern refers to the shape of the distribution of the daily inshore run (defined as C+E in Bristol Bay fishing districts) over time.

The spatial resolution of these descriptors can be district-specific or aggregated to represent the bay-wide run. Furthermore, forecasts of these descriptors can be "proximate" (i.e., pertaining to just the next several days) or "yearend" (pertaining to the remainder of the season's run). Proximate forecasts represent those fish thought to be between the PMTF and the commercial fishing districts (i.e., prior to being accounted for in the C+E). Proximate forecasts are based on the estimated travel time (TT) for Sockeye to travel between Port Moller and the districts and the estimated return-per-index (RPI; the number of fish inshore that each catch index point at the PMTF represents). RPI is estimated by comparing PMTF daily indexes to subsequent C+E lagged by the TT parameter.

The data informing us about these descriptors vary with respect to when they become available and their reliability. The chronological order of when they become available is as follows: (1) average individual weight, (2) age composition, (3) stock composition, (4) proximate run magnitude and entry pattern, (5) run timing, and (6) yearend run magnitude. Initial age compositions are typically released by ADF&G around June 20 (i.e., after the 5th or 6th PMTF sampling trip). This same timeline was true for stock composition estimates until the 2022 season when the onsite gene lab and two vessels provided enough samples to move the first release date up to June 16. The point at which proximate run magnitude and entry pattern estimates can be made varies by district. The Egegik and Nushagak-Wood Districts have the earliest run timing and begin to exhibit a more reliable relationship between PMTF catch indices and the inshore run around June 25 during early years, but sometimes as late as July 2 during late years. The Naknek-Kvichak District follows a few days later, and the Ugashik District later still. However, the Ugashik District is especially difficult given the long and more variable travel time between the fishing district and the escapement enumeration site. If few openers occur at the beginning of the season to produce district catches, then relating PMTF indices to eventual Ugashik C+E requires waiting on fish to show in the escapement. This phenomenon applies to other districts as well.

Run timing and yearend forecasts of magnitude are not available until catches at the PMTF have peaked and begun to decline. Knowing the peak day at Port Moller allows estimation of the earliness/lateness at the test fishery, which can then be used to estimate the run timing for C+E. Once the peak has occurred at Port Moller (the average date is June 29), sometimes the tail of the test fishing seasonal distribution can be projected and then used to forecast the remaining inshore run. Yearend forecasts are affected by any changes in the vulnerability of the run to capture at PMTF. Changes in the TT and/or especially RPI parameters after about June 30 can make accurate forecasting of proximate and yearend run magnitude difficult sometimes.

Objectives

The 2023 Port Moller test fishing project was managed by the Bristol Bay Science and Research Institute (BBSRI) in collaboration with ADF&G to achieve three main objectives.

1. Collect and report a variety of data useful for forecasting various descriptors of the run.
2. Inform stakeholder decisions by analyzing and interpreting these data to provide information in a timely manner.
3. To the extent time and resources will allow, observe and test various influences on variables that can affect forecasting accuracy and timeliness. Examples in previous years include gillnet selectivity, net saturation, migration patterns across the transect, and improvements to methods for age and stock composition estimation.

Methods

Study Area and Project Timing

Stations Fished

The PMTF samples were taken at stations located along a transect from Port Moller to Cape Newenham, Bristol Bay, Alaska (Figure 1). Stations are 5 nm apart, with Station 1 being 30 nm offshore from Port Moller and Station 12 being 85 nm offshore. Since 1987, only even numbered stations have been fished during both the outbound and inbound trips. Through 2015, typically 5 stations were fished (Stations 2-10; Table 1). In 2016, Station 12 was added to the daily schedule. In 2017, seven stations were fished: Stations 2, 4, 6, 8, 10, 12, and 14 (35–95 miles from Port Moller). For the first time in the history of the project, Stations 16-24 were sampled in 2018 by a second vessel during a pilot study (Raborn and Link 2018). The results from this study motivated full-season funding of a second vessel, R/V *Ocean Cat* (a 93 ft [28.3 m] steel vessel), during 2019 and allowed sampling out to Station 24 regularly and even once at Station 26. Two vessels were also used during 2020 and 2021, but weather/mechanical days prevented full coverage of the transect throughout the entirety of the season during these years. During 2022, the transect was fully covered by the *Ocean Cat* and the R/V *Halfmoon Bay* (replaced by the R/V *Miss Leona* in 2023).

Sampling of the inside stations (2-10/12) and outside stations (12/14-22) was typically alternated from one day to the next between vessels to minimize the potential for any unknown vessel/skipper effects on the data collected. Sometimes odd numbered stations were sampled in addition to the even stations to assess patchiness across the transect.

Dates Fished

Most Bristol Bay Sockeye Salmon reach the fishing districts between the end of June and the middle of July, with the peak in the fishery typically occurring on or around July 5. Sockeye Salmon travel time from Port Moller to the Bristol Bay fishery usually takes about one week, so the standard PMTF has generally been from June 10 or 11 to July 10 or 11. Late runs and large catch indices at Port Moller through July 10 in recent years, motivated us to extend the end date in recent years (July 13 for the 2023 season; see Table 1).

Net Description

The PMTF standard net used from 2011 to 2019 consisting of four alternating 50-fathom shackles of 5⅛" (13.0 cm) and 4½" (11.4 cm) multi-strand mesh, 60 meshes deep, hung at a 2:1 ratio. Further information regarding net descriptions prior to 2011 and historical setup can be found in Nemeth et al. (2016). Based on our research from 2019, there was evidence that a greater portion of the run was passing underneath this net during particular weather conditions (e.g., calm seas, low wind, and sunny days causing greater water visibility). As such, we fished a deeper net starting in 2020—100-5⅛" meshes and 111-4½" meshes. All other net specifications remained the same. The fishing depth swept increased from ~6 m for the 60-mesh net to ~11 m for the deeper net used for 2020-2023.

Fish Sampling Protocol

Net Deployment and Retrieval

During standardized test fishing at each station, a single net was deployed. Drift gillnet sets lasted for a mean fishing time of 29 min (range=15-61 min; this accounts for time to set and retrieve the net), and deployment was perpendicular to the migratory path of the salmon on the north-south axis (Helton 1991). However, the net shifts in direction sometimes during sets during certain tide and wind scenarios. Sets have been shorter in recent years than those prior to 2015 to reduce the possibility of net saturation from affecting the index. The extra time saved each day from switching to single, shorter sets allowed for the addition of extra stations to be sampled (see Appendix F in Link et al. 2019). Typically, it took 5-6 min to deploy the full length of the net. After setting the net, the vessel moved away while maintaining visual contact. No attempt was made to hook or run the net to increase catch so as to better standardize effort among years, skippers, and vessels.

Data Recorded

Environmental variables measured included sea surface temperature (SST), Secchi depth (an index of water visibility), and wind velocity and direction. Times were recorded when the trailing buoy was deployed, when the net was fully set, when retrieval began, and when the net was fully in. Fish were identified to species and enumerated. Sockeye Salmon were measured for length (mid eye fork length—MEFL), individual weight (during the first half of the test

fishery) and sampled for age and genetic analysis (described below). New for the PMTF in 2023, stomach samples were randomly collected from a subset of Sockeye to assess diet composition. These samples were delivered to ADF&G, who will conduct a diet analysis and release their findings in a separate report (pending).

Station Indexes

Catches were converted to catch-per-unit-effort (CPUE; fish per 200 fathom hours) to adjust for small differences in fishing times among sets (larger catches take longer to pick and cause the net to fish longer). Mean fishing time (*MFT*) in minutes for each set was:

$$MFT = SI - FO + \frac{(FO-SO)+(FI-SI)}{2} \quad (1)$$

Where, *SO*=time of day the gillnet first entered water, *FO*=time the gillnet was fully deployed, *SI*=time the gillnet retrieval began, and FI=time the gillnet retrieval was completed. CPUE was calculated as number of fish caught divided by *MFT* and multiplied by 60 to provide fish per 200 fathom-hours.

Age and Stock Composition Estimates

Fish were sampled for stock and age composition analysis on the test fishery vessels' decks immediately following fishing at each station. For stock composition analysis, tissue samples were collected from Sockeye Salmon by clipping the pelvic fin. Tissues were placed into grid squares on individually barcoded preservation sheets and desiccated. Samples from the *Ocean Cat* were offloaded every other day onto the *Miss Leona* for further processing within the onboard connex that was fabricated into a gene lab (see Appendix F in Raborn and Link 2023 for further details). Appendix B provides the 2022 stock composition estimates reported by ADF&G.

For age composition analysis, scales were removed from all Sockeye Salmon captured, whenever possible. Scales were aged according to European notation. Thus, numerals preceding the decimal refer to the number of freshwater annuli and numerals following the decimal refer to the number of marine annuli. Total age from time of egg deposition is the sum of these two numbers plus one to account for the first winter during incubation. Age estimations were made by ADF&G personnel in King Salmon using acetate impressions of scales under 10x magnification using a microfiche reader. These impressions were developed within the same connex used for the gene lab on the R/V *Miss Leona*. The 2023 age composition estimates reported by ADF&G for PMTF, inshore districts, and escapement projects are included in Appendix C.

The Daily Abundance Index

The Daily Abundance Index was developed from each day's station indexes. Two methods of calculating the daily abundance index have been used. See Raborn et al. (2011) for

a description of the "Traditional Index". Briefly, the Traditional Index used the sum of CPUE's from Stations 2-8 giving double weight to Station 8 to account for fish missed beyond that station. Beginning in 2011, the PMTF has used the "Replacement Index" (hereafter referred to as just "Daily Abundance Index" or "Daily Index"), which was simply the average index from Stations 2-10. With extensive coverage of the area offshore of the traditional stations starting in 2019, we based Daily Indices across all stations (Stations 2-22) as including these additional stations seemed to better describe the dynamics of the inshore run.

To account for stations not fished, missing station-date specific values had to be interpolated. Some hyper-technical methodology is required here as a simple linear interpolation for missed values from observed indices for adjacent days and stations does not fully utilize the information contained in the entire 2-dimensional dataset (i.e., time and space). Instead, we fit the observed index pattern across days and stations with a generalized additive model (GAM). Day-of-year and station number were covariates, and their interaction fit with the "gam" function in the R Package "mgcv" with default settings for thin plate regression splines. The observed raw catch of sockeye represented the response and was modeled with a Tweedie distribution. Log(MFT) was added to the model as an offset to provide output in terms of predicted indices, which were used as the interpolated values.

Run Timing

Defining run timing relative to past seasons is becoming a moving target in recent years with a series of later runs being observed 2015-2021. Thus, we did not attempt to adjust the baseline period on what constitutes the average. Instead, we defined early/late as the number of days before/after July 4 that 50% of C+E has been accounted for inshore.

Forecasting Based on the PMTF

Forecasts of age and stock composition were simply assumed to be equal to estimates observed at the PMTF through the most recent date[3]. Run timing forecasts are based on the earliness/lateness estimated at Port Moller and its relationship with historical run timings of previous inshore runs. We also sometimes provide forecasts that are independent of PMTF in our daily updates and interpretations[4].

Forecasting run magnitude with PMTF is more complicated. As with any test fishery, assumptions must be made about the proportion of the run that is exposed to the test fishery day-to-day, and year-to-year, and the proportion of this exposed run encountering the test net

[3] Note that inseason estimates of district-specific stock composition from PMTF assume all later district catches to be local origin. Postseason estimates of actual stock-specific abundance provided by ADF&G are based on stock-specific harvests in the different districts. Differences will arise between in- and postseason stock composition estimates to the extent any stocks were caught in non-natal districts.

[4] Specifically, we compare historical C+E to date binned by annual run sizes and overlaid with the current year's C+E as a way of gauging run timing and magnitude independent of the PMTF.

that is caught. Typically, an assumption is made that these proportions are generally constant across a season and among years (i.e., constant catchability). Neither assumption seems to have been the case with the historical PMTF project. While improvements have been made in recent years to stabilize catchability, its fluctuation continues to obfuscate run magnitude forecasting. Investigating the causes of this fluctuation has and continues to be a priority.

Historical forecasting method applied to Port Moller data used the past relationship between cumulative indexes to date and resulting total runs from previous years' runs (see Appendices E and F in Raborn et al. 2011 for the evolution of forecasting methods). The usefulness of such forecasts was marginal at best and occasionally led to wildly inaccurate forecasts of abundance and patterns of run arrival to the districts. This inaccuracy had several causes. Notable among them was interannual variation in run timing, which is not known in the current year until beyond the middle of the run. Even more problematic was the annual variability of the run's exposure to the PMTF, which appears to have been significant given half the run could have passed beyond the outer most station fished (mostly Station 10, but sometimes Station 12) during some years but not others. For instance, we estimated that as much as 68% of the run may have passed beyond Station 10 in 2018; 59% in 2019, 56% in 2020, 47% in 2021, and 53% in 2022. Moreover, for 2022 the catch pattern across the transect changed dramatically during the season. During 2023, the run was distributed inshore (only 22% occurred beyond Station 10).

At the end of the 2011 PMTF project, we began developing a model to forecast the yearend total run magnitude based on current-year PMTF indices only. Called the "daily projection model", it was based only on information collected in the current season. Estimates of travel time (TT) between PMTF and inshore districts was estimated by fitting the Daily PMTF Indices to subsequent and appropriate C+E by simultaneously estimating the run-per-index (RPI) parameter. However, forecasting the total run for the year before early July proved to be unfeasible due to uncertainty in the tail of the PMTF.

In some years, such as 2019, we were able to report proximate forecasts of the inshore run magnitude for all stocks aggregated with the range in days determined by the TT parameter. In other years, we also provided district-specific proximate forecasts by parsing the Daily Catch Index across districts based on the stock composition estimates and then estimating their respective RPI and TT parameters separately. District-specific forecasts can be hindered in some years by coarse temporal resolution in the stock composition estimates. Sparse coverage of the station-day sampling matrix for 2020 and 2021 hindered our ability to produce quantitative proximate forecasts, even for the Bay as an aggregate. The greatest coverage of the station-day matrix was achieved during 2022; at least some sampling occurred every day and the majority of the transect was sampled nearly every day. Likewise, more frequent and timely stock compositions were produced in 2022 than ever before. As such, we made several proximate forecasts of magnitudes and entry patterns. However, these forecasts proved to be inaccurate due to unforeseen conditions which are expanded upon in the Results and

Discussion section. The same conditions seen in 2022 also appeared to be present in 2023; thus, we did not attempt this approach this past season.

Inseason Reporting of PMTF Information

Information from the PMTF was distributed regularly throughout the season using several methods. As has been the case for many years, the "daily catch updates" that summarized catches and indexes by station and the Daily Index were emailed to a distribution list usually on the same day that test fishing occurred (late fishing days can push some updates to early morning of the following day). Interpretations of these catches were provided in the body of these emails on some days as meaningful information changed or new insights were possible. Subscribers to the email distribution list are maintained from year-to-year and it is free to sign up via an email request to the authors of this report. Finally, BBSRI distributed ADF&G's genetic stock composition and age composition updates as they became available throughout the season. All project information sent by email, including the daily catch updates, interpretations, and age- and stock-composition estimates were also posted on the homepage of BBSRI's website (www.bbsri.org).

Many in the fleet often cannot receive emails when on the fishing grounds. Starting in 2020, a texting service was set up for recipients to receive an abbreviated summary of station indexes, stock composition estimates, and any important operational updates (e.g., weather or mechanical delays) to provide greater access to PMTF information. The texting service was provided free; a subscription required users to text "PMTF" to a 1-800 number.

Results and Discussion

In 2023, the Port Moller Test Fishery (PMTF) operated from June 11 to July 13 using two research vessels—the R/V *Ocean Cat* and the R/V *Miss Leona*. A total of 6,670 Sockeye were caught in 300 sets distributed across Stations 2-24 to provide the information used for inseason forecasting. An additional 12 sets made at and near Station 10 during June 19 and June 22 produced 414 Sockeye and helped to assess sampling error at a single station versus nearby patchiness in the passage rate. The coverage of stations and days during the 2023 test fishery was only surpassed by 2022, with only one day missed during mid-season due to weather.

Inseason Reporting of PMTF Information

All inseason update types were numbered in sequence through the season and are provided in Appendices A–C. ADF&G's daily and season summaries are provided in Appendices D and E. The email distribution list ended the season with 1,228 email addresses, up about 11% over 2022 (Table 2). Updates available via SMS texts continued to be highly valued by fishermen. The dates and times of dissemination of the PMTF updates are given in Table 3. We were successful in getting daily catch updates out quickly, and all but two were sent on the day of fishing.

The timeliness of the stock composition estimates is an important metric for the PMTF program, and in the past has been affected by coordination between vessels and several logistical steps from moving tissues from the transect to a lab in Anchorage. Link et al. (2019) elaborate on factors affecting the timing of stock composition estimates and summarized the frequency and processing time from collection of samples to public release. This summary is updated in Table 4. The median time between sample collection and release to the distribution list was a single day during the 2023 season; the maximum lag time was only two days. The turnaround time for 2023 estimates was about two days faster than what has been observed since 2010 (Figure 2).

To further compare the timing of stock composition estimates in 2023 to the previous seasons, we examined the cumulative numbers of stock composition estimates by date within each season (Table 5). In 2023, the first stock composition estimate was released on June 17, which was the second earliest release date on record (June 16 in 2022). Furthermore, this first estimate covered a three-day window, whereas the first estimate in previous years typically combined four or more days rendering less resolution in their interpretations (Table 4). Seven stock composition estimates had been released by June 30 compared with a median of five from 2010 to 2022 (Table 5). Over the entire season a total of 12 estimates were released (about three more than in previous years).

The reduced turnaround time between genetic tissue collection at the PMTF and release of the stock composition estimates, as well as increased frequency and number of estimates for 2022 and 2023 was due entirely to the onboard genetics lab that allowed genotyping to be done at sea. Therefore, the logistical difficulties of transferring samples to the gene lab in Anchorage were removed entirely. The pilot study performed in 2021 (Raborn and Link 2022), proving the feasibility of and vetting the results from an onboard gene lab, resulted in the successful full-scale shift in methodology during 2022 for such a crucial aspect of this program. Stock composition at Port Moller continues to be the most reliable and arguably the most important information that the test fishery provides. The value of increasing the spatio-temporal resolution of these estimates and reducing the time between sample collection and reporting cannot be overstated. An added benefit of genotyping onboard was that the test boats did not have to deliver genetics samples to Port Moller every two days, which kept the crews on the fishing transect and improved spatio-temporal sampling coverage.

2023 Run Characterization and Performance of the PMTF

Table 6 summarizes our inseason interpretations of the run based on PMTF and is essentially a report card on the veracity of our predictions. This summary is an integral part of reporting results for quantifiable metrics that feed into our adaptive management of the project's study design.

Fish Weight, Age, and Stock Composition

On June 20 and June 25, we estimated the weights of the average Sockeye passing the test fishing transect to be 5.6 lbs. These estimates agreed with the 5.5 lbs reported for inshore catch by ADF&G in their season summary. Likewise, the estimated age composition based on the PMTF reflected that of the inshore run very well (Figure 3).

To assess the accuracy of PMTF stock composition estimates, district C+Es were lagged backwards to the PMTF using travel time (TT) parameters estimated for each of the districts—~7.5 days for Ugashik, ~7.2 days for Egegik, ~7.3 days for Naknek-Kvichak, and ~7.5 days for Nushagak-Wood. In addition to TT, lag times between the enumeration sites (counting towers and Nushagak sonar) and the fishing districts were estimated as follows: 5 days for Ugashik and Igushik, 1 day for Egegik, Naknek, Nushagak, and Wood Rivers, and 3 days for the Alagnak and Kvichak Rivers.

Genetic samples taken at Port Moller were foretelling of the run's inshore stock composition (Figure 4). While the accuracy of these forecasts was sufficient to inform management and industry decisions, some error remained. Under-representation of the Nushagak-Wood District stocks and over-representation of Egegik seemed to occur for the June 17-18, 19-20, and 21-22 stock compositions. This discrepancy presumes that the TT estimates were correct for each district. Egegik bound fish generally migrate more through the inshore stations` (2-12) and Nushagak-Wood fish through the outer stations (14-22). While coverage of the transect was good during 2023, the boats were only able to fish out to Station 18 during these days (Table 7). Missing a mode of Nushagak-Wood Sockeye at these outer stations could be one explanation. Also, the high index on June 19 was due to greater catches at Stations 4-12; wind and seas were less conducive to fishing at the outer stations for this date.

Run Magnitude, Entry Pattern, and Timing

The 2023 run was 54.5 million with 50% of C+E occurring by July 6 making it 2-days late if July 4 is the date we use to reference an "average" run timing. Run timings over the previous eight years (2015-2022) have been late (mean=3.8 days late; range=1-6). The seasonal pattern in the 2023 run was similar to 2017 and 2021 in that a dramatic increase in C+E occurred in early July following a drop off in late June (Figure 5) mostly due to the Nushagak-Wood District (Figure 6). Dissimilar to any other run going back to 2011 was the subsequent multimodal pattern having substantial peaks on July 10 and 14. Unlike other years when the outer stations were fished (2018-2022) a strong second mode of catches did not occur beyond Station 12. Although, catches did increase offshore slightly compared to inshore after June 30 (Table 8).

Like 2022, the Daily Index was not indicative of the entry pattern for C+E during 2023 (Figure 7). As such, we forewent publishing proximate forecasts of daily C+E during 2023. Seasonal shifts in the travel time (TT) between the test fishery and inshore may have caused fish to stack outside the districts before surging in causing the multimodal pattern in C+E that was not apparent in the Port Moller signal. Alternately, catchability unknowingly changed,

which altered the return-per-index (RPI=the number of fish inshore that each catch index point at Port Moller represents). In other words, the passage rate increased more or less consistently and then subsided as the season progressed, but our ability to catch passing Sockeye may have fluctuated during the season.

Reasons for changes in catchability at the test fishery are difficult to isolate. Prior to 2018, we suspected that a primary cause was incomplete transect coverage. Before then, the outermost station fished was typically Station 10. Beginning with a pilot study in 2018 to assess the feasibility of covering the entire transect (Stations 2-22/24) with two boats, better coverage has been achieved especially in 2019 when the PMTF and C+E aligned rather well. Missed consecutive days due to weather and mechanical problems hindered view of the passage rate during 2020 and 2021. The interpolated values for missed data did not fit the inshore C+E pattern in these years. The two vessels used in 2022 were able to cover the transect almost completely, and no days were missed entirely. Substantial coverage was also achieved in 2023, although a few more station-day combinations were missed. Nevertheless, the daily pattern in C+E has not mimicked that of the Daily Catch Index at Port Moller for the past two years.

We still favor the hypothesis that changes in fish behavior continue to be the primary culprit. That is, fish passing the transect fluctuated in their susceptibility to the net by migrating deeper at times and/or exhibited milling behavior whereby they were less driven towards the spawning grounds. Seasonal differences in migration depth could have been influenced by environmental variables such as water temperature. Greater catches seemed to align with sea surface temperatures of 8-9 $^{\circ}$C and subside at temperatures greater than this. While we do not know if a thermocline was present at stations where catches dropped off, Sockeye tend to be deeper in areas of strong thermal stratification and shallower in areas of weaker stratification (Quinn and Terhart 1987; Quinn et al. 1989). Helton (1991) linked seasonal changes in depth of capture at the PMTF during 1989 to changing vertical thermal structures as the thermocline developed in strength over the course of the summer.

Changes in TT and RPI are not mutually exclusive, and both are entirely confounded. Unless we can stabilize the RPI throughout the season or at least detect when it changes in near real time, estimating TT will remain untenable therefore rendering proximate forecasts of C+E unreliable.

Additional Research

Trade-offs between the range (distance from shore) and the spatial resolution among stations have existed since the inception of the PMTF. The distances are great relative to the amount of time available. Early in the history of the program, even-numbered stations were fished on the outbound trip and odd-numbered on the return trip. At some point, this was standardized to fish even-numbered stations daily. On occasion, we have seen patterns that strongly suggest the bands of fish passing PMTF may be patchy in a consistent manner for several days.

On three days during the 2019 season, we had the crews sample odd-numbered stations to see how these indexes compared to the adjacent stations typically sampled. While this endeavor was more or less an initial spot check, it did prove informative in showing how patchy or banded the run can be on a given day across the transect (Link et al. 2019). We repeated this exercise on four days during the 2020 and 2021 seasons. Catches from stations could be interpolated reasonably well from adjacent catches for some station-day combinations, but other days revealed that modes could be missed if only even or odd stations had been fished (Raborn and Link 2022). Sixty-four odd stations were fished across 24 dates during 2022. The results from this effort clearly show that the passage rate was different at some odd stations than what would have been interpolated from adjacent even stations. However, this patchiness must remain consistent for several days for this to cause bias in the Daily Catch Indices. If so, one would expect more variability across adjacent stations than among sets at the same station on a given date. Furthermore, there should be more average variability across adjacent stations over consecutive dates than average variability across consecutive dates over adjacent stations.

During 2023, we were able to perform 12 sets in addition to our routine sampling. We chose to center this sampling on and adjacent to Station 10 across four consecutive days. While the results of this exercise were far from definitive, our initial findings were that catch indices varied about as much across multiple sets at Station 10 on given dates as they did across Stations 9.5, 10, and 10.5 on those same dates (Figure 8). Likewise, the average CV across dates was 78% versus 63% across Stations. While this spot check does not support consistent patchiness as a strong source of bias, additional samples are needed for a more definitive test.

Future Work and Recommendations

Consistent with the adaptive management approach to this project, we continue to examine our assumptions and search for ways of improving the test fishery on an annual basis. Below is the latest in this series of efforts to improve the test fishery performance. All our research to date suggests that most of the remaining forecast error comes from missing fish at the test fishery. We have shown that this can occur from not sampling outer stations and from ending the test fishery too early. Testing a 100-mesh monofilament net in 2019 and using a deeper multi-filament net during 2021 has shown that we may under some conditions have missed varying proportions of the run passing beneath the 60-mesh net historically used. During the 2022 season, we strongly suspect that even the deeper net now being used still missed a substantial portion of the run across the inside stations. The odd stations sampled during 2019-2022 suggest that the run becomes consistently braided for several days at a time. Our recommendations for 2024 revolve around these findings.

Continue Using Two Vessels to Cover Stations 2-22

The primary advantage from having two vessels has been that the entire transect was more likely to be sampled on a given day. The discovery of a large second mode of fish

migrating past Port Moller further offshore during 2018-2022 calls into question the comparison of PMTF results across years and hinders our ability to explain forecast error even within years. The degree to which errors in the past occurred because fish were missed beyond the transect, because travel times changed inseason, and/or because environmental conditions changed catchability cannot be discerned. While there was no consistent mode of fish beyond Station 12 during 2023, we could not have known that without sampling the outer stations. Only by sampling the entire transect can other reasons for forecast inaccuracy be examined. Two boats are required for this level of effort.

Attach Smart Buoys to Both Top Ends and one Bottom end of each Gillnet

We discovered during 2023 that sea surface temperature (SST) can sometimes be difficult to pin down. Multiple thermometers and methods yielded slightly different readings. We recommend that water temperature be prioritized as a variable to be measured with greater accuracy and precision. In so doing, the sensors we are recommending will provide us with additional physicochemical information. Blue Ocean Gear, Inc. has developed a "smart buoy" capable of recording water temperature to within $1/10^{th}$ of a degree of accuracy every few minutes. It also records depth, salinity, wave height, and GPS coordinates. With this information two redundant measurements of SST will be available for each set. Temperature and possibly salinity differences between the surface and bottom buoys may detect the development of a thermocline, and in turn a change in catchability due to fish swimming deeper. Sea state (wave height) will no longer have to be subjectively estimated by eye. Finally, coordinates from the ends of the net will tell us how much the net drifted in on itself (i.e., their distance apart at the beginning versus the end of each set), the direction and distance each set drifted, and how much net orientation shifted. All these variables are affected by the interaction of tidal state and wind. If changes in catches can be linked to any of these variables, then their effects can be accounted for and standardized in the future to help stabilize catchability and provide a more reliable signal from the PMTF.

There may be concern that attaching these devices could increase visibility of the nets and influence catchability. First, the surface buoys will be attached near the existing trailing floats and therefore cause no increase in the nets' profiles. The bottom buoys can be covered with a bait bag to reduce visibility.

Continue Sampling at Odd Stations as Time and Energy Allows

While the few additional sets made during 2023 did not confirm our suspicion of consistent patchiness across the transect for multiple days, more paired odd station sets adjacent to an even station over consecutive days would begin to render a more definitive conclusion.

Acknowledgments

The Port Moller Test Fishery is dependent on many individuals. Here is the cast of characters in 2023. Thank you all.

R/V Ocean Cat, Robert Maw (owner and captain), Adam Maw (first mate and captain); Marcus Ream and Connor Mulvey (deckhands). OC's fifth season at PMTF.

R/V Miss Leona, Chris Allinson (captain); Abigail Duffy (deck boss), Lee Samuel Cruz-Bondurant (deckhand). ML's first season at PMTF.

BBSRI Fisheries Technicians, Bio-sampling and deck crew: Hayden Ulbrich, Eden Evans, Will Wrigley, Sam Harris, Donovan Hesselroth. At-sea genotyping: Natura Richardson.

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Dutch Harbor Shore Support: Mike and Kai Lloyd (Aleutian Expeditors). Office and yard staff, AML Dutch Harbor.

Stock Composition Estimates, Gene Conservation Laboratory, ADF&G

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Logistics Support and Scale Aging

Jeff Regnart (BBSRI): vessel operations; project management; gillnet and gear procurement. Bryan Nass (BBSRI), Dan Fong (Nikon Instruments): At-sea scale aging. Stacy Vega and Diana Merlino (ADF&G), scale aging, age comp summaries. Keggie Tubbs (BBSRI), Administration, HR, finance, and logistics.

Project gillnets: Vikki Garroutte-Simpson, LFS, Kenai.

Project Management, Data Analysis, Daily Email/Text Updates. Scott Raborn (LGL), Jordan Head and Michael Link (BBSRI).

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Tables

Table 1. Start and end dates for the PMTF by year, the number of days each station was fished, and the total station-days fished by year, 1987-2023.

			Station														Stations
Year	Start	End	0	2	4	6	8	10	12	14	16	18	20	22	24	26	Sampled
1987	11-Jun	3-Jul		15	12	10	7										44
1988	11-Jun	5-Jul		19	19	17	16										71
1989	11-Jun	7-Jul		18	19	18	16										71
1990	11-Jun	5-Jul		18	19	19	16										72
1991	11-Jun	9-Jul		26	27	27	25	2									107
1992	11-Jun	9-Jul		20	23	23	19										85
1993	11-Jun	10-Jul		25	24	24	22										95
1994	11-Jun	9-Jul		26	26	26	26										104
1995	12-Jun	9-Jul		24	28	28	24	4									108
1996	12-Jun	8-Jul		26	26	26	26										104
1997	11-Jun	8-Jul		28	28	28	28										112
1998	12-Jun	9-Jul		26	27	27	26										106
1999	11-Jun	8-Jul		28	28	28	28	24	7								143
2000	10-Jun	8-Jul		20	23	28	28	28	10	3							140
2001	10-Jun	5-Jul		25	25	24	23	20									117
2002	10-Jun	9-Jul		30	30	30	30	30									150
2003	9-Jun	30-Jun		14	17	17	17	16									81
2004	10-Jun	9-Jul		18	27	29	29	27	12	1							143
2005	9-Jun	7-Jul		18	20	20	22	16	7								103
2006	10-Jun	9-Jul		18	26	24	24	25	6								123
2007	11-Jun	10-Jul		18	26	25	22	22	1								114
2008	10-Jun	8-Jul		11	19	25	24	20	5								104
2009	10-Jun	5-Jul		15	24	24	24	24	9								120
2010	10-Jun	7-Jul		25	26	25	25	23									124
2011	10-Jun	7-Jul		19	23	23	19	17									101
2012	10-Jun	8-Jul		24	24	25	26	26	2								127
2013	10-Jun	6-Jul		18	20	21	21	18									98
2014	10-Jun	10-Jul		26	26	27	27	25									131
2015	10-Jun	10-Jul		24	25	25	25	24									123
2016	12-Jun	12-Jul		26	27	27	27	24	24								155
2017	10-Jun	11-Jul		29	29	30	30	29	28	19							194
2018	10-Jun	11-Jul		13	25	27	27	27	28	28	26	11	8	5	2		227
2019	10-Jun	17-Jul		28	32	31	32	33	31	28	24	21	21	17	10	1	309
2020	12-Jun	13-Jul		10	15	18	24	24	24	20	17	15	10	6	2		185
2021	11-Jun	15-Jul		20	22	24	28	26	27	25	24	23	21	11	1		252
2022	10-Jun	14-Jul	3	22	31	32	33	34	33	34	32	31	28	12	4	1	330
2023	11-Jun	13-Jul		28	30	31	28	29	27	27	28	31	21	14	6		300
Average, 1987-2016																	109
Average, 2017-2023																	257

Does not include odd stations fished in 2018-2023 or paired sets made at various stations in some years.

Table 2. Number of recipients in the Port Moller Test Fishery email distribution list by known and unknown affiliation for 2017-2023.

	2017	2018	2019	2020	2021	2022	**2023**	% change, 2022-23
Government								
ADF&G Research and Others	36	41	37	41	45	44	**44**	0%
ADF&G Fishery Managers	8	7	7	9	10	11	**12**	9%
Other State Government	3	2	2	3	3	3	**4**	33%
Local Government	1	6	8	7	8	7	**7**	0%
Federal Government	2	3	3	2	1	3	**4**	33%
Subtotal	50	59	57	62	67	68	**71**	4%
Industry								
Fishermen	69	223	393	465	525	658	**759**	15%
Processing	162	182	183	192	202	215	**223**	4%
Buyers	13	20	25	33	37	39	**40**	3%
Shippers	5	11	12	14	14	12	**12**	0%
Other Industry	17	27	33	34	36	41	**44**	7%
Subtotal	266	463	646	738	814	965	**1078**	12%
Other								
Non-ADF&G Scientists	28	35	45	47	50	45	**50**	11%
Non-Governmental Org.	6	3	3	3	7	4	**3**	-25%
Media	12	8	3	7	7	7	**8**	14%
Subtotal	46	46	51	57	64	56	**61**	9%
Known Affiliation	362	568	754	857	945	1,089	**1,210**	11%
Unknown affiliation*	132	84	5	22	12	18	**18**	0%
Grand Total	494	652	759	879	957	1,107	**1,228**	11%
Net increase, year-over-year		158	107	120	78	150	**121**	
% Increase, year-over-year		32%	16%	16%	9%	16%	**11%**	

Table 3. Sampling dates and time of corresponding updates for four main types of inseason information from the Port Moller Test Fishery in 2023. Updates were sent by email to the distribution list and posted on BBSRI's website (www.bbsri.org); an abridged version was sent via a texting service as well.

Sampling Date	Catch Update #	Time (date) Catch Update emailed	Commentary on Run?	ADF&G Inseason Reports	
				Stock Composition	Age Comp.
9-Jun	Pre-season	5:42 PM	Yes		
10-Jun	1	7:40 PM (No fishing)			
11-Jun	2	8:10 PM			
12-Jun	3	7:53 PM			
13-Jun	4	6:08 PM			
14-Jun	5	6:46 PM			
15-Jun	6	6:58 PM			
16-Jun	7	6:56 PM			
17-Jun	8	6:33 PM		#1, 6:06 PM June 14-16	
18-Jun	9	5:28 PM			
19-Jun	10	7:44 PM	Yes	#2, 5:03 PM June 17-18	
20-Jun	11	8:53 PM	Yes		
21-Jun	12	7:29 PM		#3, 9:07 PM PM June 19-20	
22-Jun	13	5:53 PM			
23-Jun	14	6:51 PM		#4,3:09 PM June 21-22	
24-Jun	15	9:21 PM			#1
25-Jun	16	9:01 PM	Yes	#5, 5:02 PM June 23-24	
26-Jun	17	10:19 PM			
27-Jun	18	5:24 PM			
28-Jun	19	7:05 PM		#6, 11:07 AM June 25-26	#2
29-Jun	20	8:28 PM	Yes	#7, 8:25 PM June 27-28	
30-Jun	21	5:14 PM			
1-Jul	No update	No fishing		#8, 8:34 PM June 29-30	
2-Jul	22	10:28 PM			
3-Jul	23	8:43 PM		#9, 10:58 PM July 2	#3
4-Jul	24	3:33 PM			
5-Jul	25	10:40 PM			
6-Jul	26	6:56 PM	Yes	#10, 8:57 PM July 3-5	
7-Jul	27	7:42 PM	Yes		
8-Jul	28	12:01 AM (9-July)			#5
9-Jul	29	12:35 PM (10-July)	Yes	#11, 2:42 PM July 6-7	
10-Jul	30	6:14 PM			
11-Jul	31	9:30 PM			
12-Jul	32	10:23 PM		#12, 4:01 PM July 10-11	
13-Jul	33	7:05 PM			

Table 4. Distribution of stock composition estimates within and among seasons, 2010-2023. Boxed areas denote sample dates; date within the box is date results were published, and the number in parentheses is the number of days after the last day of a given sample until the estimates were published. Run timing is indicated for each year.

Sample Dates	2010 1 day late	2011 3 days early	2012 avg. timing	2013 6 days early	2014 3 days early	2015 6 days late	2016 6 days late	2017 2 days late	2018 4 days late	2019 4 days late	2020 5 days late	2021 2 days late	2022 1 day late	2023 2 days late	Sample Dates
10-Jun															10-Jun
11-Jun															11-Jun
12-Jun															12-Jun
13-Jun															13-Jun
14-Jun	#1 June 21 (3)	#1 June 19 (3)	#1 June 21 (4)	#1 June 21 (4)	#1 June 18 (3)	#1 June 20 (3)		#1 June 20 (3)	#1 June 20 (3)			#1 June 19 (3)	#1 June 16 (1)	#1 June 17 (1)	14-Jun
15-Jun										#1 June 20 (2)					15-Jun
16-Jun													#2 June 18 (1)		16-Jun
17-Jun		#2 June 22 (3)										#2 June 21 (3)		#2 June 19 (1)	17-Jun
18-Jun			#2 June 24 (4)	#2 June 22 (3)		#2 June 22 (3)			#2 June 24 (4)				#3 June 20 (1)		18-Jun
19-Jun	#2 June 23 (3)										#1 June 22 (2)	#3 June 23 (3)		#3 June 21 (1)	19-Jun
20-Jun		#3 June 24 (3)	#3 June 24 (3)	#3 June 24 (3)	#2 June 24 (3)	#3 June 25 (4)							#4 June 22 (1)		20-Jun
21-Jun	#3 June 25 (3)						#1 June 25 (3)		#3 June 25 (3)	#2 June 25 (3)		#4 June 25 (3)		#4 June 23 (1)	21-Jun
22-Jun		#4 June 26 (3)	#4 June 26 (3)	#4 June 26 (3)	#3 June 26 (3)	#4 June 25 (2)	#2 June 28 (5)	#2 June 28 (3)		#3 June 27 (3)	#2 June 25 (2)		#5 June 24 (1)		22-Jun
23-Jun	#4 June 27 (3)								#4 June 27 (2)					#5 June 25 (1)	23-Jun
24-Jun		#5 June 28 (3)			#4 June 28 (3)	#5 June 27 (3)					#3 June 27 (2)		#6 June 27 (2)		24-Jun
25-Jun				#5 June 28 (2)			#3 June 29 (3)			#4 June 29 (3)		#5 June 28 (3)		#6 June 28 (2)	25-Jun
26-Jun	#5 June 30 (4)		#5 June 30 (3)			#6 June 29 (3)		#3 June 29 (2)	#5 June 30 (3)			#6 June 30 (3)			26-Jun
27-Jun				#6 July 2 (4)			#4 June 30 (2)			#5 July 1 (3)				#7 June 29 (1)	27-Jun
28-Jun	#6 July 2 (3)		#6 July 2 (3)		#5 July 1 (2)	#7 July 2 (3)		#4 July 1 (2)	#6 July 2 (3)			#7 July 2 (3)	#7 July 1 (2)		28-Jun
29-Jun							#5 July 2 (2)			#6 July 3 (3)	#4 July 2 (2)			#8 July 1 (1)	29-Jun
30-Jun	#7 July 4 (3)	#6 July 4 (3)	#7 July 4 (3)		#6 July 3 (2)	#8 July 3 (2)		#5 July 3 (2)	#7 July 3 (2)				#8 July 3 (2)		30-Jun
1-Jul							#6 July 6 (4)			#7 July 4 (2)					1-Jul
2-Jul	#8 July 6 (3)	#7 July 7 (3)	#8 July 6 (3)		#7 July 6 (3)	#9 July 7 (3)		#6 July 5 (2)	#8 July 6 (3)		#5 July 4 (1)	#8 July 6 (2)	#9 July 5 (2)	#9 July 3 (1)	2-Jul
3-Jul							#7 July 6 (2)				#6 July 7 (3)			#10 July 6 (1)	3-Jul
4-Jul	#9 July 8 (3)			#7 July 10 (3)	#8 July 9 (4)			#7 July 7 (2)	#9 July 7 (2)	#8 July 8 (2)	#7 July 7 (2)		#10 July 7 (2)		4-Jul
5-Jul		#8 July 9 (2)					#8 July 6 (1)								5-Jul
6-Jul	#10 July 10 (3)								#10 July 8 (1)				#11 July 8 (1)	#11 July 9 (1)	6-Jul
7-Jul						#10 July 10 (2)	#9 July 11 (3)	#8 July 10 (2)		#9 July 11 (3)	#8 July 11 (2)	#9 July 10 (2)			7-Jul
8-Jul													#12 July 10 (1)		8-Jul
9-Jul							#10 July 12 (3)								9-Jul
10-Jul										#10 July 14 (3)		#10 July 13 (2)	#13 July 13 (2)	#12 July 12 (1)	10-Jul
11-Jul															11-Jul
No. estimates	10	8	8	7	8	10	10	8	10	10	8	10	13	12	
Number of days from collection to estimates published															
Min	3	2	3	2	2	2	1	2	1	2	1	2	1	1	
Max	4	3	4	4	4	4	5	3	4	3	3	3	2	2	
Median	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	1.0	1.0	
Avg	3.1	2.9	3.3	3.1	2.9	2.8	2.8	2.3	2.6	2.7	2.0	2.7	1.5	1.2	

Table 5. Cumulative number of stock composition estimates from PMTF by date, 2010-2023. Run timing is indicated for each year (e.g., 1L=1 day late).

Date	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**	2010-2023		
Run timing	1L	3E	avg.	6E	3E	6L	6L	2L	4L	4L	5L	2L	1L	**2L**	Min	Max	Median
16-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
17-Jun	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**	**1**	**1**	0	1	0
18-Jun	0	0	0	0	1	0	0	0	0	**0**	**0**	**0**	**2**	**1**	0	2	0
19-Jun	0	1	0	0	1	0	0	0	0	**0**	**0**	**1**	**2**	**2**	0	2	0
20-Jun	0	1	0	0	1	1	0	1	1	1	0	1	3	**2**	0	3	1
21-Jun	1	1	1	1	1	1	0	1	1	1	0	2	3	**3**	0	3	1
22-Jun	1	2	1	2	1	2	0	1	1	1	1	2	4	**3**	0	4	1
23-Jun	2	2	1	2	1	2	0	1	1	1	1	3	4	**4**	0	4	2
24-Jun	2	3	3	3	2	2	0	1	2	1	1	3	5	**4**	0	5	2
25-Jun	3	3	3	3	2	4	1	1	3	2	2	4	5	**5**	1	5	3
26-Jun	3	4	4	4	3	4	1	1	3	2	2	4	5	**5**	1	5	4
27-Jun	4	4	4	4	3	5	1	1	4	3	3	4	6	**5**	1	6	4
28-Jun	4	5	4	5	4	5	2	2	4	3	3	5	6	**6**	2	6	4
29-Jun	4	5	4	5	4	6	3	3	4	4	3	5	6	**6**	3	6	4
30-Jun	5	5	5	5	4	6	4	3	5	4	3	6	6	**7**	3	7	5
1-Jul	5	5	5	5	5	6	4	4	5	5	3	6	7	**8**	3	8	5
2-Jul	6	5	6	6	5	7	5	4	6	5	4	7	7	**8**	4	8	6
3-Jul	6	5	6	6	6	8	5	5	7	6	4	7	8	**9**	4	9	6
4-Jul	7	6	7	6	6	8	5	5	7	7	5	7	8	**9**	5	9	7
5-Jul	7	6	7	6	6	8	5	6	7	7	5	7	9	**9**	5	9	7
6-Jul	8	6	8	6	7	8	8	6	8	7	5	8	9	**10**	5	10	8
7-Jul	8	7	8	6	7	9	8	7	9	7	7	8	10	**10**	6	10	8
8-Jul	9	7	8	6	7	9	8	7	10	8	7	8	11	**10**	6	11	8
9-Jul	9	8	8	6	8	9	8	7	10	8	7	8	11	**11**	6	11	8
10-Jul	10	8	8	7	8	10	8	8	10	8	7	9	12	**11**	7	12	8
11-Jul	10	8	8	7	8	10	9	8	10	9	8	9	12	**11**	7	12	9
12-Jul	10	8	8	7	8	10	10	8	10	9	8	9	12	**12**	7	12	9
13-Jul	10	8	8	7	8	10	10	8	10	9	8	10	13	**12**	7	13	10
14-Jul	10	8	8	7	8	10	10	8	10	10	8	10	13	**12**	7	13	10
# estimates	10	8	8	7	8	10	10	8	10	10	8	10	13	**12**	7	13	10

Table 6. Substantive comments and predictions in the daily updates of the 2023 Port Moller Test Fishery.

Update #	Date sent	% of C+E remaining	Summary of commentary, analyses, and predictions	Did the prediction(s) come true?
Pre-season	9-Jun	N/A	Described the vessels and personnel to be involved in 2023 PMTF season. Included a tribute to the late Greg Buck.	N/A
10	19-Jun	100%	Included the final catch update tables for 2018-2022 to facilitate comparison with previous years. Noted the high Daily Index for this date and that a 7-day travel time would put this push of fish inshore around June 26.	C+E increased for the Nush-Wood District on June 24 and 25; Egegik C+E increased on June 30.
11	20-Jun	100%	Noted that the Daily Index declined dramatically from day before. Speculated that catchatbility decreased due to calm seas and clear weather causing fish to avoid the net. Estimated the weight for the average fish caught at Port Moller to be ~5.6 lbs.	ADF&G's 2023 Season Summary reports the average weight = 5.5 lbs for harvested Sockeye.
16	25-Jun	94%	Updated the weight for the average fish caught at Port Moller to remain ~5.6 lbs.	ADF&G's 2023 Season Summary reports the average weight = 5.5 lbs for harvested Sockeye.
20	29-Jun	86%	Noted that run strength at the PMTF was still building. As such, an early run less than the preseason forecast of ~50 million seemed unlikely.	Inshore run magnitude was 54.5 million with 50% of C+E showing inshore on July 6 (i.e., two days late if July 4 is the reference).
26	6-Jul	51%	Noted that the Daily Index increased substantially after two days of falling off; interpreted this to mean a substantial tail was left to the run.	C+E increased substantially for all districts seven days later on July 13.
27	7-Jul	49%	Projected that half of the run was left to show inshore.	49% of C+E was left.
29	10-Jul	37%	Commented that rough weather hindered our ability to forecast daily patterns in C+E due to changes in catchability. Nevertheless age and stock composition forecasts proved to be accurate.	The pattern in the Daily Index at the PMTF did not exactly mimic that of C+E. However, the overall indication of run strength was sufficient. Age and stock composition forecasts were accurate.

Table 7. Catch indices by station and date from the 2023 Port Moller Test Fishery, with those provided by the R/V *Ocean Cat* highlighted in blue; all others were sampled by the R/V *Miss Leona*. The relative magnitude of the Daily Catch Index (mean indices across Stations 2-22) is indicated by green bars; interpolated values for missing station-date combinations were included in this calculation.

	Daily Catch Index by Station (Est. catch from the 200 fathom net if it had fished for 1 hr)												Mean Daily Catch Index Avg. Indices Across Stations
Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	S24	(Stns 2-22)
10-Jun													
11-Jun									0	0	0		3
12-Jun	0	4	7		6				9	0			4
13-Jun	2	2	8	5	16	30	0	0	0	0			6
14-Jun	4	0	18	17	124	0	5	0	2	0	0		15
15-Jun	0	41	84	2	0	0	2	0	0	0		0	12
16-Jun	0	99	20					0	0	0	1		23
17-Jun	9	115	0	2	6	0	2	0	4				13
18-Jun	0	45	0	82	156	0	0	0	13	0			27
19-Jun	0	265	282	227	158	139	0	0	0				97
20-Jun	0	62	62	75	22	0	5	2	0				21
21-Jun	0	62	290	60	23	0	0	0	7				40
22-Jun	0	47	10	88	16	2	0	0	0				15
23-Jun	0	162	69	103	108	162	0	5	2	0	8	2	56
24-Jun	2	223	100	216	25	132	6	0	8	0	8	2	65
25-Jun	23	111	151	128	53	45	0	23	7	2	0		49
26-Jun	0	251	166	16	66	43	12	5	0	0			51
27-Jun	5	123	124	39	175	44	58	0	0				52
28-Jun	0	305	292	159	53	57	47	0	0				84
29-Jun	0	214	143	209	306	145	47	5	0	0			97
30-Jun	0	34	284	243	71	94	126	10	14				81
1-Jul													78
2-Jul		62	193	133	263	9	5	0	0				63
3-Jul	0	19	166	217	269	72	0	43	5	66	58	15	83
4-Jul	0	46	35	48	93								38
5-Jul	4	0	35	47	11	35	77	36	2	23	0		25
6-Jul	0	0	111	128	210	118	21	64	0	8			61
7-Jul	5	21	133	64	46	14	49	0	0	0	67		36
8-Jul			28			34	2	82	2	0	0		27
9-Jul		2	21	19	76				0				19
10-Jul	2	5	71	31	46	32	0	2	0	40	0	0	21
11-Jul	7	0	94	53	0	17	2	0	5	13	6	15	18
12-Jul	0	0	9	43	29	9	2	4	7	0	0		9
13-Jul	7	2	10	22	104	5	0	4	5	9	40		19

Table 8. Predicted catch indices by station and date from the 2023 Port Moller Test Fishery based on a statistical predictive model (see Methods). The gradient of greater to lesser values is colored red to blue, repsectively.

Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	S24
10-Jun	0	1	2	3	4	3	2	1	1	0	0	0
11-Jun	0	2	4	6	6	5	3	2	1	0	0	0
12-Jun	1	3	8	10	9	7	4	2	1	0	0	0
13-Jun	1	6	15	18	14	9	5	3	1	1	0	0
14-Jun	2	11	28	30	20	12	6	3	1	1	0	0
15-Jun	4	20	48	47	28	15	7	3	1	1	0	0
16-Jun	5	32	75	70	38	18	8	4	1	1	0	0
17-Jun	7	45	106	93	47	20	9	4	1	1	0	0
18-Jun	9	57	132	114	56	23	9	4	1	1	0	0
19-Jun	11	65	150	129	61	25	10	4	2	1	0	0
20-Jun	11	69	158	135	65	26	11	4	2	1	0	0
21-Jun	12	70	159	137	67	28	12	5	2	1	1	0
22-Jun	13	72	158	138	70	30	13	5	2	1	1	0
23-Jun	14	74	161	141	73	33	14	6	3	1	1	1
24-Jun	15	80	169	149	79	36	17	8	3	2	1	1
25-Jun	17	87	183	163	88	41	19	9	4	2	1	1
26-Jun	19	95	202	183	100	47	23	11	5	3	2	1
27-Jun	19	101	222	207	116	55	27	13	7	4	2	1
28-Jun	18	101	234	231	133	64	31	16	9	5	3	1
29-Jun	16	92	233	250	150	73	36	19	11	6	3	2
30-Jun	13	76	214	256	164	81	40	22	13	8	4	2
1-Jul	9	58	184	246	170	86	44	25	16	10	5	3
2-Jul	6	42	150	225	166	87	45	28	19	12	7	3
3-Jul	4	30	117	195	154	83	44	29	21	15	8	4
4-Jul	3	22	90	162	134	74	41	29	23	18	10	5
5-Jul	2	16	69	131	113	64	36	27	24	20	12	6
6-Jul	2	13	55	105	92	52	31	24	23	21	14	7
7-Jul	2	11	46	86	75	42	25	20	21	20	14	7
8-Jul	2	11	41	72	61	34	20	16	17	18	13	8
9-Jul	2	11	37	62	50	28	16	13	14	15	12	7
10-Jul	2	11	35	55	42	22	13	10	11	12	10	7
11-Jul	2	11	33	47	35	19	10	8	8	9	9	6
12-Jul	3	11	29	40	30	16	9	7	7	7	7	6
13-Jul	3	10	25	33	25	14	8	6	6	6	6	5

Figures

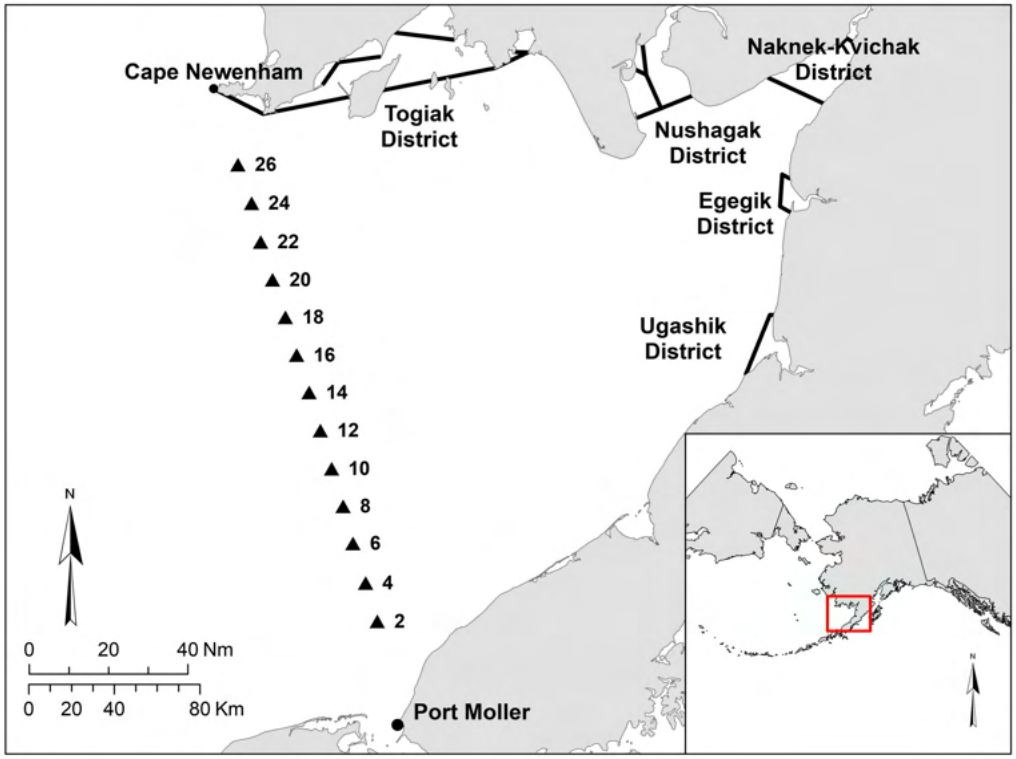


Figure 1. Map of the study area, showing the stations of the 2023 Port Moller Test Fishery and the locations of Bristol Bay fishing districts. Sockeye passing the test fishery stations take approximately six to nine days to reach the Bristol Bay fishing districts in typical years.

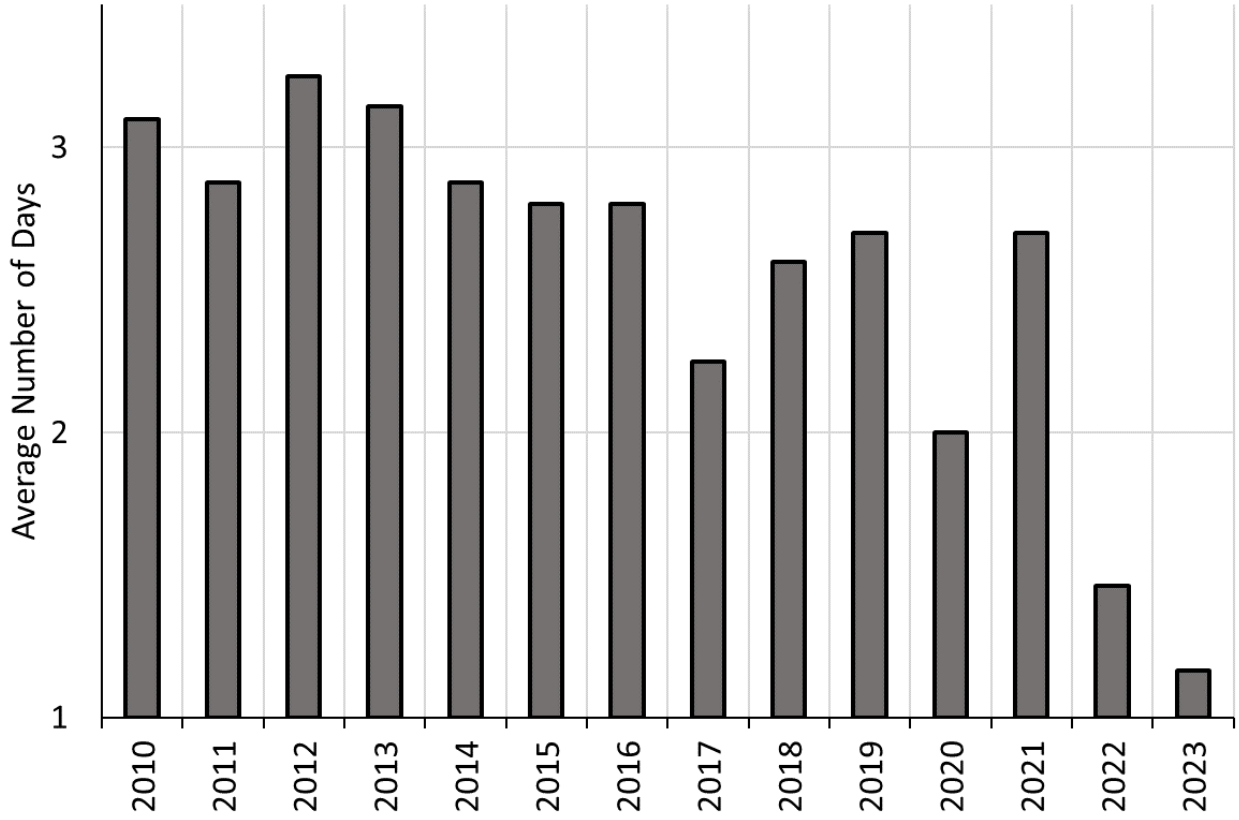


Figure 2. The average number of days between the final date included in the inseason stock composition estimates and the release of those composition estimates from PMTF, 2010-2023.

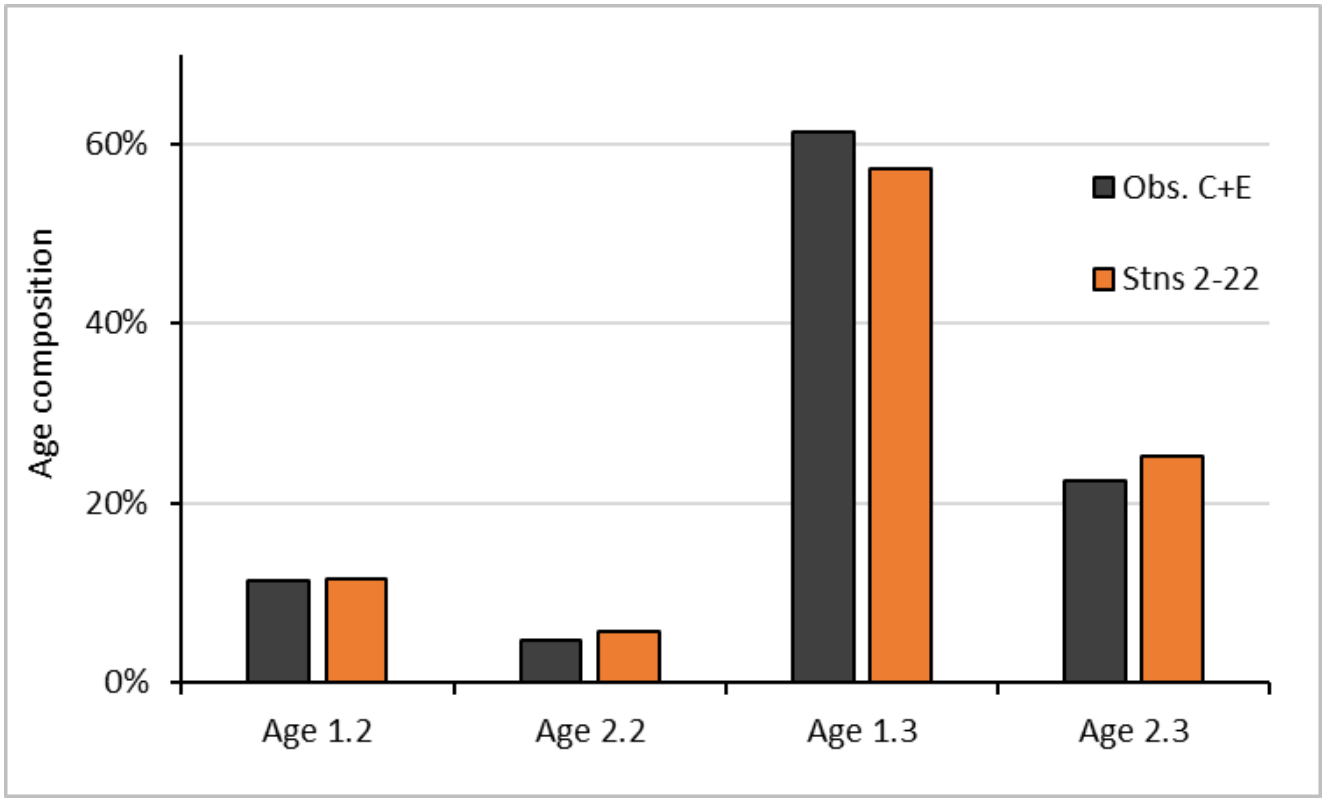


Figure 3. Age composition for the observed C+E compared to that estimated from PMTF samples across the entire transect (Stns 2-22) in 2023. Values taken from the last age composition estimates released by ADF&G on July 18, 2023.

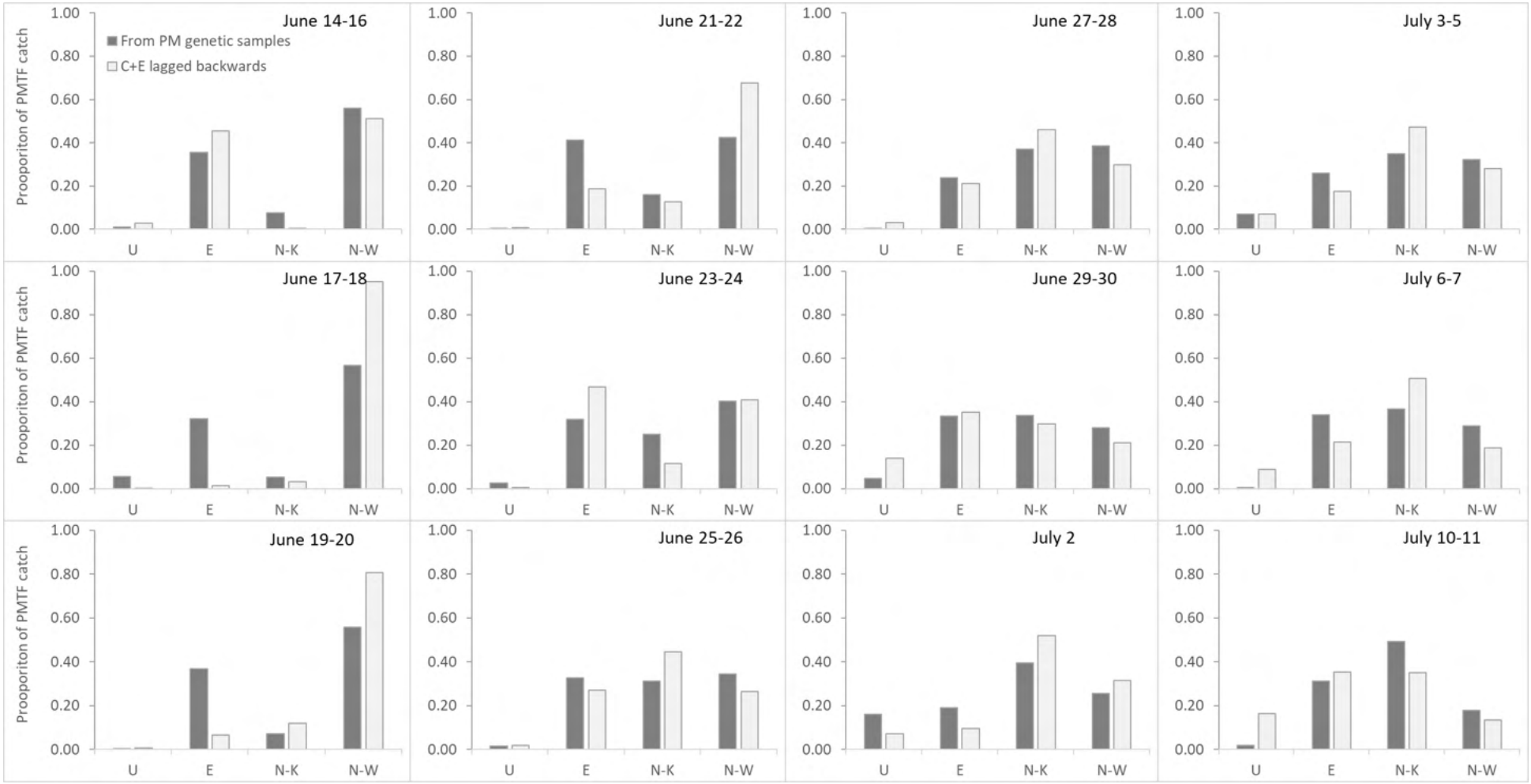


Figure 4. Stock composition by district based on catches from the PMTF compared to catch + escapement (C+E), 2023. Proportions for C+E were estimated from district runs lagged backwards to the PMTF using travel times (TT) for each district (see Figure 6).

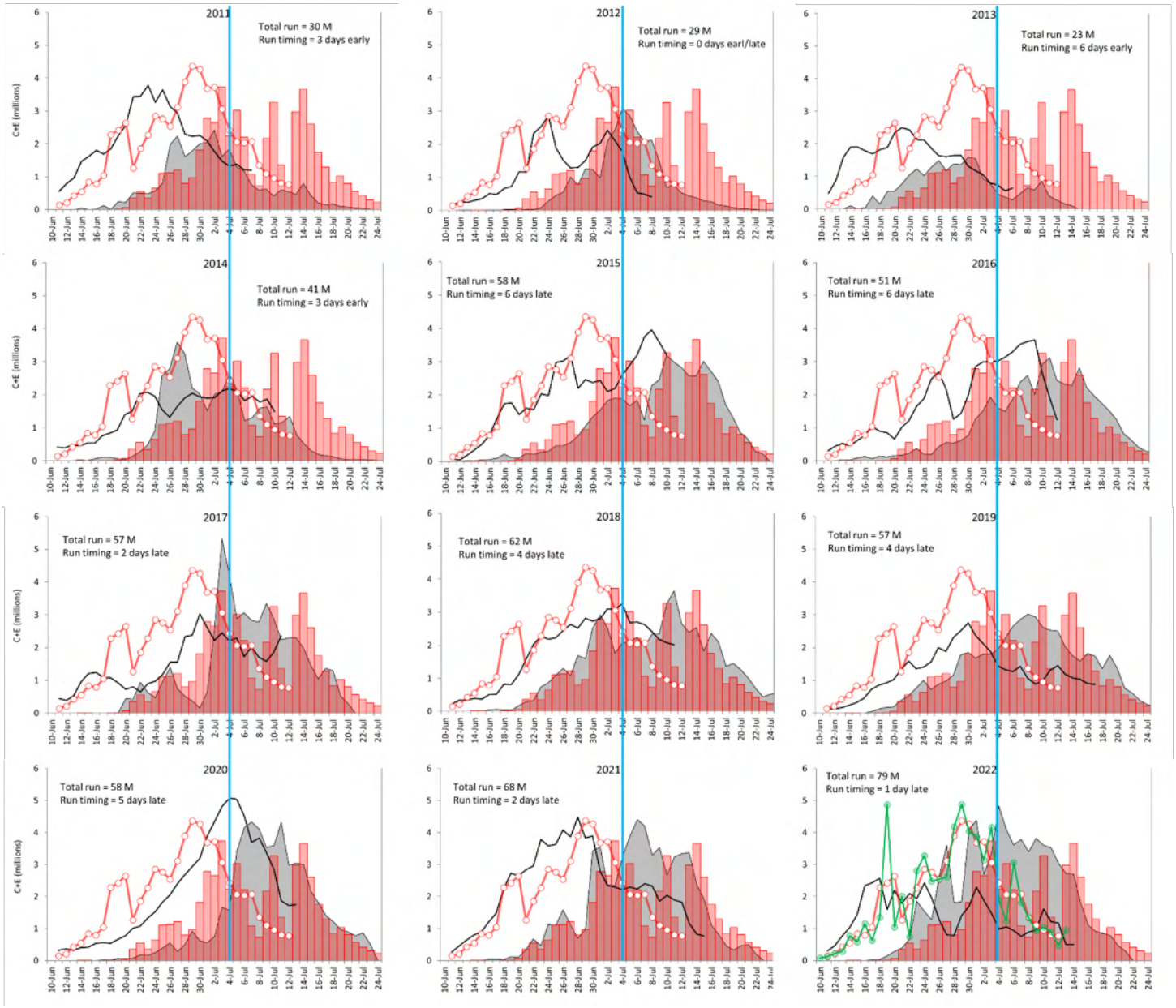


Figure 5. PMTF Daily Index and inshore catch + escapement (C+E) for 2011-2023. Gray area curve = observed C+E for historical years scaled to the left vertical axis; red columns = observed C+E for 2023. Black lines = respective Daily PMTF Catch Indices for each historical year; the red line = a 3-day moving average of the Daily Catch Index for 2023 based on Stations 2-22 (units for the daily indices are not shown, but all graphs are scaled the same). The green line shown for the 2022 panel reflects the 2023 Daily Catch Index without a moving average. Catch Indices for years prior to 2018 represent the average catch-per-unit-effort (CPUE) across Stations 2-10. Furthermore, a shallower net (6 m deep) was used during 2011-2019; beginning in 2020 the net depth has been 11 m deep. Run timing for C+E was estimated by comparing each year's date when 50% of the run reached inshore to July 4. Blue vertical lines highlight July 4 for reference.

Figure 6. Catch plus escapement by district for 2011-2023. The black vertcal line specifies July 4 in each year to facilitate comparisons.

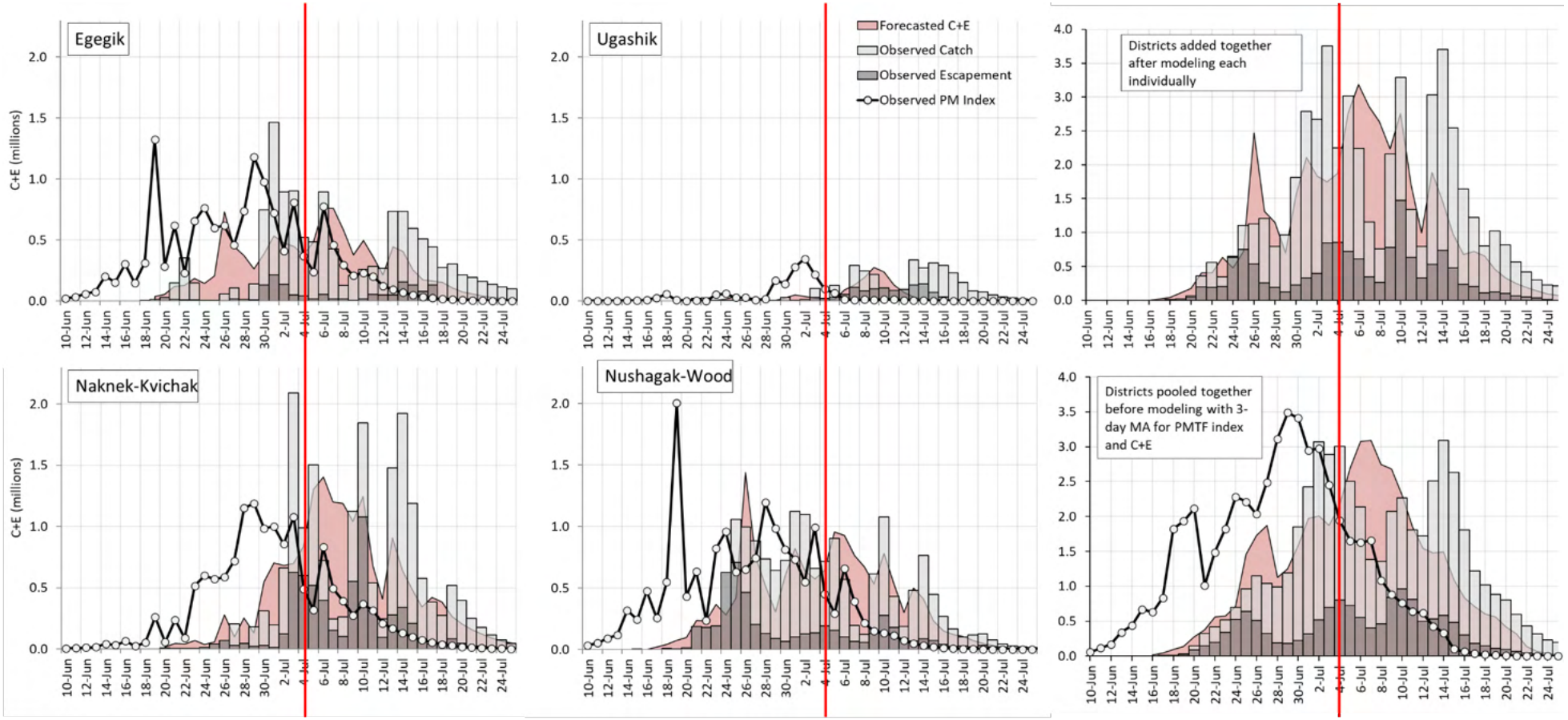


Figure 7. Forecasted (salmon colored area curve) and observed inshore catch + escapement (C+E) for 2023. Note: escapement was lagged backwards from the enumeration sites for each district. The scale for the Daily Port Moller Index is not shown, but all district graphs are scaled the same (total run graphs are scaled the same as each other). Travel time between Port Moller and the inshore districts was estimated to be about 7.5 days for Ugashik, 7.3 for Egegik, 7.2 for Naknek-Kvichak, and 7.5 for Nushagak-Wood.

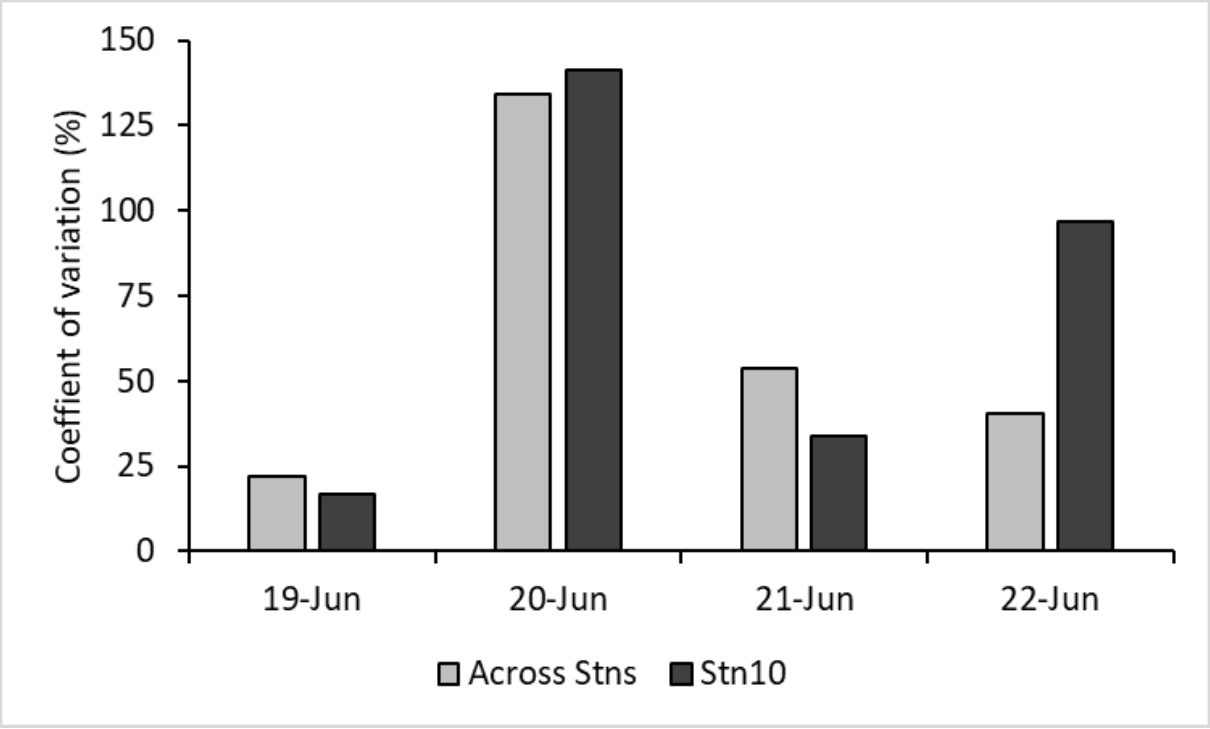


Figure 8. Coefficient of variation (CV) for multiple sets at Station 10 on given dates (June 19-22) versus CVs across Stations 9.5, 10, and 10.5 for those same dates. The average CV across dates was 78% versus 63% across Stations.

Appendices

Appendix A

Catch updates and inseason interpretations for the Port Moller Test Fishery in 2023.

Each day's catch update contained a cover email plus the catch update table (if there was fishing), and sometimes relevant supporting tables and figures. For this appendix, the catch update tables sent through the season have been removed to reduce the size and duplication within the appendix.

Order of pages in this appendix:

1. BBSRI's final daily catch update table sent on July 13, 2023.
2. Catch update cover emails that contained additional information, and tables and figures that were not redundant with the final catch update.

Scott Raborn

From: Scott Raborn
Sent: Thursday, July 13, 2023 10:05 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #33 July 13, 2023
Attachments: PMTF Catch Update #33 July 13 2023.pdf; PMTF_RawData - July 13 2023.pdf; Acknowledgments PMTF 2023.pdf

Hi Everyone,

Attached is our final test fishing update for 2023. Also, please find attached our acknowledgments.

PMTF Stock Composition Status: Done for the year.

Index by Station

S2: 7
S4: 2
S6: 1
S8: 22
S10: 104
S12: 5
S14: 0
S16: 4
S18: 5
S20: 9
S22: 40

Mean Daily Index = 19

Jordan, Scott, and Michael

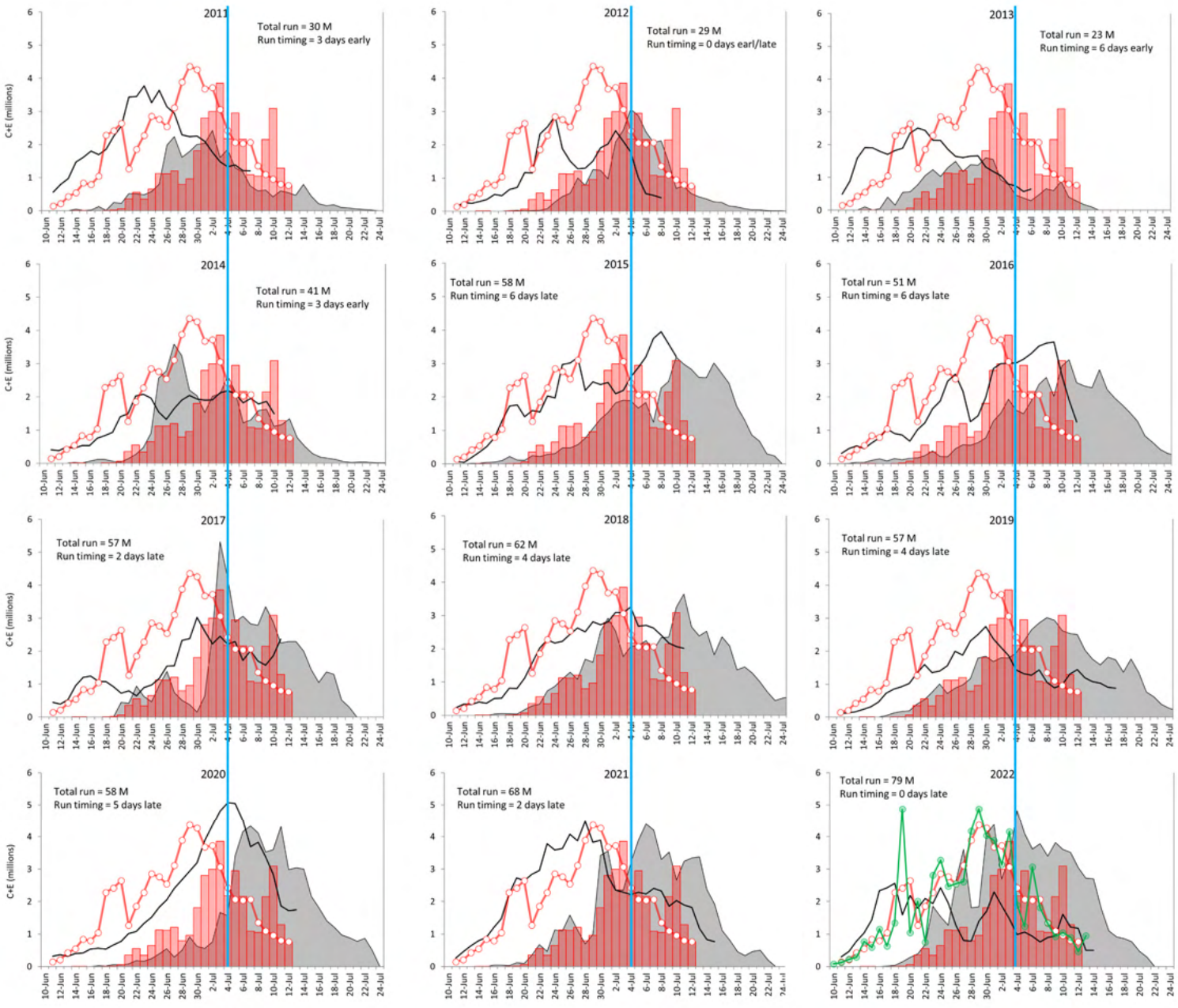
Port Moller Test Fishery: Catch Update #33, 13 July 2023.

All updates sent by email are also posted online at www.bbsri.org

	Daily Catch Index by Station (Est. catch from the 200 fathom net if it had fished for 1 hr)												Mean Daily Catch Index Avg. Indices Across Stations	Raw catches		Mean Length (mm)	
Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	S24	(Stns 2-22)	4½" mesh	5⅛" mesh	4½" mesh	5⅛" mesh
10-Jun	0	1	2	3	4	3	2	1	1	0	0	0	2				
11-Jun	0	2	4	6	6	5	3	2	0	0	0	0	3	0	0		
12-Jun	0	4	7	10	6	7	4	2	9	0	0	0	4	9	9	513	538
13-Jun	2	2	8	5	16	30	0	0	0	0	0	0	6	9	25	529	544
14-Jun	4	0	18	17	124	0	5	0	2	0	0	0	15	53	39	531	540
15-Jun	0	41	84	2	0	0	2	0	0	0	0	0	12	18	54	523	546
16-Jun	0	99	20	70	38	18	8	0	0	0	1	0	23	41	30	516	550
17-Jun	9	115	0	2	6	0	2	0	4	1	0	0	13	8	71	519	548
18-Jun	0	45	0	82	156	0	0	0	13	0	0	0	27	138	39	540	546
19-Jun	0	265	282	227	158	139	0	0	0	1	0	0	97	298	364	527	551
20-Jun	0	62	62	75	22	0	5	2	0	1	0	0	21	32	74	530	546
21-Jun	0	62	290	60	23	0	0	0	7	1	1	0	40	101	167	530	549
22-Jun	0	47	10	88	16	2	0	0	0	1	1	0	15	30	50	523	554
23-Jun	0	162	69	103	108	162	0	5	2	0	8	2	56	151	141	536	541
24-Jun	2	223	100	216	25	132	6	0	8	0	8	2	65	125	257	539	546
25-Jun	23	111	151	128	53	45	0	23	7	2	0	1	49	156	132	537	552
26-Jun	0	251	166	16	66	43	12	5	0	0	2	1	51	148	153	536	556
27-Jun	5	123	124	39	175	44	58	0	0	4	2	1	52	146	111	533	547
28-Jun	0	305	292	159	53	57	47	0	0	5	3	1	84	174	283	527	550
29-Jun	0	214	143	209	306	145	47	5	0	0	3	2	97	293	222	533	551
30-Jun	0	34	284	243	71	94	126	10	14	8	4	2	81	230	175	532	547
1-Jul	9	58	184	246	170	86	44	25	16	10	5	3	78				
2-Jul	6	62	193	133	263	9	5	0	0	12	7	3	63	185	196	534	549
3-Jul	0	19	166	217	269	72	0	43	5	66	58	15	83	227	224	530	549
4-Jul	0	46	35	48	93	74	41	29	23	18	10	5	38	59	44	532	546
5-Jul	4	0	35	47	11	35	77	36	2	23	0	6	25	44	88	537	547
6-Jul	0	0	111	128	210	118	21	64	0	8	14	7	61	152	187	535	547
7-Jul	5	21	133	64	46	14	49	0	0	0	67	7	36	116	83	540	543
8-Jul	2	11	28	72	61	34	2	82	2	0	0	8	27	44	36	524	545
9-Jul	2	2	21	19	76	28	16	13	0	15	12	7	19	29	50	541	543
10-Jul	2	5	71	31	46	32	0	2	0	40	0	0	21	36	65	523	546
11-Jul	7	0	94	53	0	17	2	0	5	13	6	15	18	56	45	533	539
12-Jul	0	0	9	43	29	9	2	4	7	0	0	6	9	12	38	513	532
13-Jul	7	2	10	22	104	5	0	4	5	9	40	5	19	44	54	538	542
Mean Stn Index	3	70	94	85	83	43	17	10	4	7	7	3	Total =	3164 (47%)	3506 (53%)	532	548

Red index values were estimated with a statistical model built upon the observed pattern across catch indices to date; thus, these values are subject to change as the season progresses.

Figure 1. PMTF Daily Index and inshore catch + escapement (C+E) for 2011-2023. Gray area curve = observed C+E for historical years scaled to the left vertical axis; red columns = observed C+E for 2023. Black lines = respective Daily PMTF Catch Indices for each historical year; the red line = a 3-day moving average of the Daily Catch Index for 2023 based on Stations 2-22 (units for the daily indices are not shown, but all graphs are scaled the same). The green line shown for the 2022 panel reflects the 2023 Daily Catch Index without a moving average. Catch Indices for years prior to 2018 represent the average catch-per-unit-effort (CPUE) across Stations 2-10. Furthermore, a shallower net (6 m deep) was used during 2011-2019; beginning in 2020 the net depth has been 11 m deep. Run timing for C+E was estimated by comparing each year's date when 50% of the run reached inshore to July 4. Blue vertical lines highlight July 4 for reference.



Acknowledgments, Port Moller Test Fishery, 2023

The Port Moller Test Fishery is dependent on many individuals. Here is the cast of characters in 2023. Thank you all.

R/V *Ocean Cat*, Robert Maw (owner and captain), Adam Maw (first mate and captain); Marcus Ream and Connor Mulvey (deckhands). OC's fifth season at PMTF.

F/V *Miss Leona*, Chris Allinson (captain); Abigail Duffy (deck boss), Lee Samuel Cruz-Bondurant (deckhand). ML's first season at PMTF.

BBSRI Fisheries Technicians, Bio-sampling and deck crew: Hayden Ulbrich, Eden Evans, Will Wrigley, Sam Harris, Donovan Hesselroth. At-sea genotyping: Natura Richardson.

Port Moller Shore Support: Steven Samuelsen (plant manager), Brenda Lanphere (office), Stefan (stockroom), Peter Pan Seafoods.

Dutch Harbor Shore Support: Mike and Kai Lloyd (Aleutian Expeditors). Office and yard staff, AML Dutch Harbor.

Stock Composition Estimates, Gene Conservation Laboratory, ADF&G
Tyler Dann (Lead), Elizabeth Lee (Lead-backup), Jodi Estrada (Lab Manager), Zach Grauvogel and Erin Dooley (In-Lab Support), and project support staff: Zach Pechacek, Erica Chenoweth, Tanya Johnson, Heather Hoyt, and Eric Lardizabal.

Logistics Support and Scale Aging
Jeff Regnart (BBSRI): vessel operations; project management; gillnet and gear procurement.
Bryan Nass (BBSRI), Dan Fong (Nikon Instruments): At-sea scale aging.
Stacy Vega and Diana Merlino (ADF&G), scale aging, age comp summaries.
Keggie Tubbs (BBSRI), Administration, HR, finance, and logistics.

Project gillnets: Vikki Garroutte-Simpson, LFS, Kenai.

Project Management, Data Analysis, Daily Email/Text Updates. Scott Raborn (LGL), Jordan Head and Michael Link (BBSRI).

Funding: BBSRI, ADF&G, Bristol Bay Regional Seafood Development Association (BBRSDA), Processors: Trident, Silver Bay, Peter Pan, OBI, AGS, North Pacific, Leader Creek, E&E, Ekuk Fisheries, Copper River. Others: Bristol Bay Native Corporation, AML, Native Village of Ekuk, APL.

Scott Raborn

From: Michael Link <michael@bbsri.org>
Sent: Friday, June 9, 2023 2:45 PM
To: Scott Raborn
Cc: Jordan Head
Subject: Preseason Update, PMTF 2023, first day of fishing tomorrow, June 10
Attachments: Preseason update PMTF2023.pdf

Port Moller Test Fishery 2023. Preseason Update, June 9, 2023
First day fishing is June 10

Greetings Everyone,

We are about to begin 2023 Port Moller Test Fishery right on time. The ***R/V Ocean Cat*** (OC) is back for its 5th season and is currently off the South Peninsula enroute to Port Moller; it will likely start fishing at Station 2 on June 11th. The second vessel is the ***F/V Miss Leona*** (ML), an 86' foot trawler owned and operated by Chris Allison. The Miss Leona left Akutan this morning and should be fishing at Station 12 by mid-morning tomorrow, June 10, and will fish north. If all goes well, the two boats will be working toward each other on June 11th.

The genetics lab (8'x16' Connex) has been mounted on the Miss Leona and, like last year, the lab will provide all the genotyping service without bringing tissues ashore. Personnel on the ML will email genotype data to the Alaska Department of Fish and Game's Gene Conservation Laboratory, which will produce the stock composition estimates, as has been done for close to 20 years.

I (Michael) will have less involvement in the day-to-day management of this year's PMTF, but we have an excellent project team in place for 2023. I have taken a position with BBSRI's parent company, the Bristol Bay Economic Development Corporation (BBEDC). I have not gone far and care as much about this project as ever so I will be helping the rest of the team this season, time permitting. **Jordan Head**, who many of you will know from ADF&G, is BBSRI's new Executive Director and he will have the senior project management role for PMTF 2023. **Dr. Scott Raborn** will lead the daily catch updates and analyses, as he's done for 15 years. **Jeff Regnart** is back to oversee the vessel operations and assist in all aspects of project management. Jeff is on the *Miss Leona* now through the point they have dialed in all aspects of the test fishing protocols. All the 2023 BBSRI technicians are experienced on PMTF, and we are more ready than we've ever been for the 2023 run! Thank you to PMTF on vessel staff Natura Richardson, Hayden Ulbrich, Eden Evans, Will Wrigley, and Sam Harris.

In Memory of Greg Buck
This spring we unexpectedly lost a wonderful friend and colleague. Greg Buck was a fishery professional with a long history in the Bristol Bay salmon fishery, including years with the Port Moller Test Fishery. After serving as a captain in the Marine Corp, Greg attended the University of Washington and in the late 1990s did graduate work examining the utility of scale pattern analysis for characterizing stock composition at PMTF. Greg worked for BBSRI for 5 years beginning in 2003 where he managed the PMTF and numerous other assessment projects. Greg was ahead of his time in many ways, having begun at-sea scale aging on the PMTF vessel in 2006; something we perfected in 2022. While with BBSRI, Greg pioneered the Fisheries Database Management System (FDMS)

software to effectively handle biological sampling data from salmon – an application now widely used in ADF&G and BBSRI. Greg rounded out his career with 14 years at ADF&G where he continued his pioneering and no-nonsense approach to applied salmon research. After he retired from ADF&G we began scheming with Greg to lead some of BBSRI's R&D initiatives. We will all miss Greg.

Greg Buck Memorial Research Fund

Last month, Greg's parents Andrea and Bruce Buck reached out to us at BBSRI and asked if we would take donations on behalf of Greg as a way for people to honor him and his legacy in salmon fisheries research. We created the ***Greg Buck Memorial Research Fund,*** which will support the development of technology and research methods to manage and understand salmon populations in Bristol Bay, something that Greg was so very passionate about. If you would like to read more and/or make a donation, you can at: https://www.bbsri.org/gregbuckmemorialfund or click on the button below.

Financial Contributions to Support the Port Moller Test Fishery in 2023

Funding for PMTF 2023 is provided by ADF&G, BBSRI, BBRSDA, and salmon processors. Every year we receive monetary contributions (via check) from individual drift and setnet fishermen, and others in the fishery. Thank all of you; *every penny* of these contributions by individuals have been used for conducting (and improving) the project. While setting up a method for contributing to Greg's Memorial Fund via the web, we added to the pull-down menu a place for people to make contributions to PMTF operations; it can be accessed with the link above.

Michael Link
June 9, 2023

Scott Raborn

From: Scott Raborn
Sent: Monday, June 19, 2023 7:44 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #10, June 19, 2023
Attachments: PMTF Catch Update #10 June 19 2023.pdf; PMTF_RawData - June 19 2023.pdf; FinalCatchUpdateTables_2018-2022.pdf

Hi Everyone,

Please find attached today's catch update table, as well as the raw data. We have also included the final catch update tables for 2018-2022 to facilitate comparison with previous years.

The Daily Catch Index was 98 (over 3 times greater than yesterday), which is high for this date relative to recent years. While it is too soon to tell the difference between an earlier/smaller run versus a later/bigger run, high catch indices consistent across Stations 4-12 indicate the passage rate picked up today substantially. A 7-day travel time would put this push of fish inshore around June 26.

PMTF Stock Composition Status: Needless to say, we have enough samples for the next stock composition just from today. The boats fish towards each other tomorrow and assuming no hiccups, the 3rd stock composition could be released on June 21.

Index by Station

S2: 0
S4: 265
S6: 282
S8: 227
S10: 158
S12: 139
S14: 0
S16: 0
S18: 0

Mean Daily Index = 98

Scott and Jordan

Port Moller Test Fishery: Catch Update #10, 19 July 2023.

All updates sent by email are also posted online at www.bbsri.org

	Daily Catch Index by Station (Est. catch from the 200 fathom net if it had fished for 1 hr)												Mean Daily Catch Index Avg. Indices Across Stations	Raw catches		Mean Length (mm)	
Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	S24	(Stns 2-22)	4½" mesh	5⅛" mesh	4½" mesh	5⅛" mesh
10-Jun	0	1	2	4	5	5	3	2	1	0	0	0	2				
11-Jun	1	2	4	7	9	7	4	2	0	0	0	0	3	0	0		
12-Jun	0	4	7	11	6	9	4	2	9	0	0	0	5	9	9	513	538
13-Jun	2	2	8	5	16	30	0	0	0	0	0	0	6	9	25	529	544
14-Jun	4	0	18	17	124	0	5	0	2	0	0	0	15	53	39	531	540
15-Jun	0	41	84	2	0	0	2	0	0	0	0	0	12	18	54	523	546
16-Jun	0	99	20	34	28	12	3	0	0	0	1	0	18	41	30	516	550
17-Jun	9	115	0	2	6	0	2	0	4	1	1	0	13	8	71	519	548
18-Jun	0	45	0	82	156	0	0	0	13	0	1	1	27	138	39	540	546
19-Jun	0	265	282	227	158	139	0	0	0	2	1	1	98	298	364	527	551
20-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
21-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
22-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
23-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
24-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
25-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
26-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
27-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
28-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
29-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
30-Jun	-	-	-	-	-	-	-	-	-	-	-	-					
1-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
2-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
3-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
4-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
5-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
6-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
7-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
8-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
9-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
10-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
11-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
12-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
13-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
14-Jul	-	-	-	-	-	-	-	-	-	-	-	-					
Mean Stn Index	2	57	42	39	51	20	2	1	3	0	1	0	Total =	574 (48%)	631 (52%)	529	549

Red index values were estimated with a statistical model built upon the observed pattern across catch indices to date; thus, these values are subject to change as the season progresses.

2018	Daily Catch Index by Station (catch from the 200 fathom net if it had fished for 1 hr)											For comparison w/ prev years	Best for assessing entry pattern this year	Raw catches		Mean Length (mm)	
Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	Mean Daily Catch Index (Stns 2-10)	Mean Daily Catch Index (Stns 2-22)	4½" mesh	5⅛" mesh	4½" mesh	5⅛" mesh
10-Jun	0	0	0	0	9	14	0	0	2	1	1	2	3	6	4	479	521
11-Jun	0	0	8	48	3	8	0	0	3	2	1	12	7	5	22	411	529
12-Jun	0	0	0	5	14	5	7	8	5	3	2	4	4	10	5	494	543
13-Jun	0	5	0	31	0	40	5	3	7	5	3	7	9	26	7	508	509
14-Jun	0	0	0	0	0	13	8	27	10	7	4	0	6	4	14	475	528
15-Jun	15	1	6	11	13	15	20	0	5	0	6	9	8	8	4	514	509
16-Jun	3	27	0	0	3	20	12	14	0	0	0	7	7	29	11	493	529
17-Jun	0	31	16	16	10	72	6	0	0	0	10	15	15	45	32	509	521
18-Jun	0	10	7	9	0	24	10	14	7	5	13	5	9	34	17	508	533
19-Jun	19	4	17	41	7	0	31	37	38	68	16	18	25	55	64	505	529
20-Jun	0	0	9	33	0	18	0	34	47	10	3	8	14	52	40	502	528
21-Jun	0	0	13	11	22	43	60	107	33	13	3	9	28	78	71	510	531
22-Jun	0	11	110	25	85	34	62	79	139	26	9	46	53	157	105	507	532
23-Jun	23	6	11	26	29	40	137	48	52	49	36	19	41	66	49	527	535
24-Jun	24	3	15	35	38	30	55	91	76	55	41	23	42	65	65	515	541
25-Jun	25	2	52	17	3	21	130	98	63	61	47	20	47	55	70	518	537
26-Jun	26	9	111	0	3	16	75	60	69	68	52	30	44	30	58	512	529
27-Jun	27	11	199	3	23	54	19	64	74	73	57	53	55	70	64	502	533
28-Jun	28	3	166	3	6	70	87	63	79	78	62	41	59	83	75	509	525
29-Jun	9	3	46	17	20	16	60	9	83	83	65	19	37	31	35	512	527
30-Jun	30	0	103	132	65	78	65	125	51	86	68	66	73	145	101	508	524
1-Jul	1	3	89	68	17	52	48	57	89	88	70	35	53	84	43	518	527
2-Jul	2	9	31	55	15	43	29	34	91	90	71	22	43	48	31	498	500
3-Jul	3	6	34	70	129	319	150	35	91	89	70	49	91	162	184	512	536
4-Jul	4	0	63	70	44	44	17	84	91	87	68	36	52	82	47	523	538
5-Jul	5	13	78	20	9	41	94	84	88	84	65	25	53	58	59	519	539
6-Jul	6	3	21	22	76	125	51	44	132	79	60	26	56	109	73	512	530
7-Jul	8	24	20	48	61	68	73	78	78	72	54	32	53	7	6	527	559
8-Jul	8	3	20	46	60	66	70	72	71	64	48	27	48				
9-Jul	9	3	18	43	56	62	65	65	63	55	41	26	44				
10-Jul	10	2	17	39	51	57	58	57	54	46	33	24	39				
11-Jul	11	2	50	55	110	40	34	76	20	37	27	45	42	77	67	521	535
Mean Stn Index	9	6	42	31	31	48	48	49	53	46	35			1681 (54%)	1423 (46%)	511	531

Red index values were estimated with a statistical model built upon the observed pattern across catch indices to date; thus, these values are subject to change as the season progresses.

Net depth = 6 m
Total inshore run = 62.3 million
Run timing = 4 days late
Age composition – A1.2 = 58%
A1.3 = 37%
A2.2 = 1%
A2.3 = 3%

2019	Daily Catch Index by Station (Est. catch from the 200 fathom net if it had fished for 1 hr)											Mean Daily Catch Index		Raw catches		Mean Length (mm)	
												Best for comparison w/ prev years	Best for assessing entry pattern this year				
Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	(Stns 2-10)	(Stns 2-22)	4½" mesh	5⅛" mesh	4½" mesh	5⅛" mesh
10-Jun	15	3	0	13	2	0	0	2	1	1	0	7	3	4	9	504	541
11-Jun	0	0	0	8	0	10	0	10	2	1	1	2	3	8	3	486	526
12-Jun	0	5	0	0	0	0	0	3	2	1	1	1	1	0	2		502
13-Jun	2	2	0	12	9	0	5	4	3	2	1	5	4	0	10		509
14-Jun	1	1	1	13	13	8	7	5	4	3	2	6	5				
15-Jun	0	0	2	13	17	5	2	7	5	4	3	6	5	9	7	453	493
16-Jun	0	2	10	21	32	2	0	9	7	5	4	13	9	18	12	485	506
17-Jun	0	0	5	67	22	17	7	11	9	7	5	19	14	28	23	481	511
18-Jun	3	8	18	26	36	22	55	38	12	9	7	18	21	50	16	483	520
19-Jun	4	10	22	20	22	24	21	18	15	12	9	15	16	17	9	491	499
20-Jun	2	5	69	29	21	19	5	0	34	0	12	25	18	54	58	489	502
21-Jun	12	19	32	24	13	57	32	18	11	18	68	20	28	84	76	495	526
22-Jun	12	39	68	39	25	100	16	16	0	43	24	36	35	83	98	494	519
23-Jun	2	23	30	60	75	62	2	3	86	8	14	38	33	80	83	497	526
24-Jun	0	0	5	17	45	7	2	5	46	20	0	13	13	39	22	512	519
25-Jun	16	5	72	62	79	44	10	20	14	62	26	47	37	105	99	490	514
26-Jun	2	49	8	64	60	36	29	47	108	38	33	37	43	67	114	505	527
27-Jun	10	14	9	2	7	18	53	82	139	43	55	8	39	75	126	514	536
28-Jun	5	5	45	34	79	20	30	29	38	34	20	33	31	99	89	514	528
29-Jun	30	7	41	161	75	79	89	55	122	65	29	63	68	177	194	511	533
30-Jun	0	5	34	51	98	23	69	85	78	60	60	38	51	170	117	515	533
1-Jul	0	60	5	24	33	42	52	166	93	16	7	24	45	119	123	519	532
2-Jul	2	110	5	74	97	41	18	37	54	58	9	58	46	109	112	513	525
3-Jul	4	34	28	12	0	58	57	57	54	49	43	16	36	38	25	515	526
4-Jul	0	14	49	8	15	53	14	13	48	80	42	17	31	70	59	511	537
5-Jul	0	0	30	18	30	9	0	27	74	9	20	16	20	58	42	473	532
6-Jul	0	14	19	42	14	14	75	38	70	23	10	18	29	84	61	524	533
7-Jul	5	0	5	2	18	34	26	32	130	14	34	6	27	66	60	520	534
8-Jul	0	11	88	84	53	25	15	0	26	13	10	47	30	78	67	518	541
9-Jul	0	7	0	0	5	5	2	10	18	24	0	2	7	15	18	497	518
10-Jul	5	15	28	35	41	44	2	4	11	6	0	25	17	23	28	508	528
11-Jul	0	64	18	35	82	41	40	35	29	24	21	40	35	96	40	505	525
12-Jul	5	12	26	33	39	40	36	31	25	21	18	23	26	2	4	508	551
13-Jul	4	4	36	10	62	50	33	27	22	18	15	23	25	57	39	510	527
14-Jul	4	14	24	29	35	34	21	10	0	29	20	21	20	27	22	519	537
15-Jul	4	13	22	27	32	30	25	17	11	17	10	20	19	20	5	512	531
16-Jul	4	7	17	26	60	69	22	17	13	10	8	23	23	55	38	511	521
17-Jul	3	12	8	10	25	23	18	14	10	8	6	12	13	8	8	524	536
Mean Stn Index	4	16	24	33	36	30	24	28	41	23	18		Total =	1982 (52%)	1845 (48%)	507	527

Red index values were estimated with a statistical model built upon the observed pattern across catch indices to date; thus, these values are subject to change as the season progresses.

Net depth = 6 m

Total inshore run = 56.5 million

Run timing = 4 days late

Age composition – A1.2 = 62%

A1.3 = 33%

A2.2 = 4%

A2.3 = 1%

2020	Daily Catch Index by Station (Est. catch from the 200 fathom net if it had fished for 1 hr)											Mean Daily Catch Index		Raw catches		Mean Length (mm)	
												Best for comparison w/ prev years	Best for assessing entry pattern this year				
Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	(Stns 2-10)	(Stns 2-22)	4½" mesh	5⅛" mesh	4½" mesh	5⅛" mesh
10-Jun	3	4	7	11	14	13	8	4	2	1	1	8	6				
11-Jun	3	4	7	11	15	14	9	4	2	1	1	8	7				
12-Jun	2	0	0	0	60	3	0	0	3	2	1	12	6	27	0	491	
13-Jun	3	4	0	0	60	11	4	13	0	2	1	13	9	15	18	478	495
14-Jun	3	0	2	0	0	5	23	2	3	2	1	1	4	8	5	515	510
15-Jun	5	0	0	44	8	5	48	7	4	2	2	11	11	15	30	487	512
16-Jun	3	5	9	16	22	22	15	8	5	3	2	11	10				
17-Jun	3	10	10	23	13	24	17	10	6	4	3	12	11	12	6	466	508
18-Jun	3	6	12	21	28	26	18	11	7	5	4	14	13				
19-Jun	3	7	13	19	2	16	0	19	0	7	5	9	8	16	9	491	496
20-Jun	0	0	2	51	63	34	4	35	4	9	7	23	19	106	36	496	512
21-Jun	3	7	17	32	42	36	24	16	13	11	9	20	19				
22-Jun	3	7	19	18	98	17	27	19	16	14	12	29	23	15	42	505	523
23-Jun	2	6	23	37	87	25	19	19	14	1	16	31	23	96	68	495	522
24-Jun	3	2	8	31	108	47	2	37	75	41	23	31	34	87	123	503	527
25-Jun	0	12	2	34	70	110	33	18	4	3	88	24	34	123	64	502	522
26-Jun	4	11	31	59	72	60	46	41	44	45	38	35	41				
27-Jun	5	14	36	65	75	62	51	51	58	61	49	39	48				
28-Jun	6	17	43	72	76	63	55	60	74	80	62	43	55				
29-Jun	8	22	52	80	78	73	22	73	43	101	76	48	57	44	49	512	529
30-Jun	9	27	14	90	84	30	23	156	94	84	89	45	64	126	160	513	525
1-Jul	11	34	19	96	76	40	68	81	119	135	99	47	71	70	57	509	527
2-Jul	13	40	92	265	81	36	65	71	184	70	168	98	99	278	133	512	528
3-Jul	14	10	133	198	6	30	41	91	147	336	0	72	92	259	190	512	523
4-Jul	0	16	393	82	62	43	25	87	151	219	0	111	98	293	306	532	542
5-Jul	8	23	44	138	291	80	5	156	110	317	86	101	114	218	206	525	549
6-Jul	15	51	134	175	122	73	60	76	103	106	74	99	90				
7-Jul	14	48	127	45	113	66	58	3	169	23	63	69	66	69	80	511	525
8-Jul	3	22	52	187	80	97	0	65	82	79	54	69	65	76	95	510	535
9-Jul	10	167	205	44	250	77	81	58	72	68	47	135	98	173	161	508	525
10-Jul	10	0	23	27	117	14	21	51	63	59	41	35	39	32	30	516	529
11-Jul	9	25	54	32	3	23	38	32	19	94	37	24	33	25	44	498	129
12-Jul	8	20	32	7	108	13	37	18	120	44	32	35	40	129	28	510	451
13-Jul	0	9	57	37	33	28	28	33	40	38	28	27	30	6	25	487	527
Mean Stn Index	6	19	49	60	71	39	29	42	54	61	36		Total =	2318 (54%)	1965 (46%)	512	520

Red index values were estimated with a statistical model built upon the observed pattern across catch indices to date; thus, these values are subject to change as the season progresses.

Net depth = 11 m
Total inshore run = 58.2 million
Run timing = 5 days late
Age composition – A1.2 = 34%
A1.3 = 61%
A2.2 = 4%
A2.3 = 1%

2021	Daily Catch Index by Station (Est. catch from the 200 fathom net if it had fished for 1 hr)											Mean Daily Catch Index		Raw catches		Mean Length (mm)	
												Best for comparison w/ prev years	Best for assessing entry pattern this year				
Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	(Stns 2-10)	(Stns 2-22)	4½" mesh	5⅛" mesh	4½" mesh	5⅛" mesh
10-Jun	2	3	6	8	8	6	4	2	2	1	1	5	4				
11-Jun	0	4	4	17	12	8	5	3	2	1	1	7	5	9	3	509	475
12-Jun	0	6	0	28	18	8	6	3	2	2	1	10	7	13	8	480	499
13-Jun	9	2	58	55	21	0	10	3	7	4	2	29	16	68	22	482	498
14-Jun	3	4	4	2	148	2	0	0	6	0	5	32	16	69	27	478	525
15-Jun	3	8	20	94	52	4	0	0	0	0	0	35	16	21	53	479	495
16-Jun	0	0	0	0	117	62	20	13	10	7	4	23	21	34	65	474	514
17-Jun	2	10	0	64	154	0	77	32	24	15	6	46	35	127	103	491	503
18-Jun	19	0	21	58	50	63	41	21	37	36	10	30	32	83	94	493	515
19-Jun	7	5	41	5	389	173	50	33	26	2	2	90	67	296	153	489	498
20-Jun	0	0	104	252	201	86	21	8	34	0	4	111	65	216	149	479	498
21-Jun	0	7	52	3	21	2	45	13	93	38	28	16	27	76	79	499	520
22-Jun	0	26	89	94	112	76	160	120	69	110	6	64	78	222	169	488	515
23-Jun	9	18	40	85	135	147	124	98	70	41	20	57	72				
24-Jun	10	20	42	86	138	156	138	108	76	45	23	59	77				
25-Jun	2	0	18	19	96	146	84	183	114	48	25	27	67	190	154	492	518
26-Jun	70	4	27	23	106	168	31	148	242	0	0	46	74	262	108	500	523
27-Jun	0	0	2	192	393	148	53	222	45	52	28	117	103	333	378	498	511
28-Jun	18	9	37	186	30	19	89	36	144	30	0	56	54	146	133	504	516
29-Jun	10	23	49	90	461	335	52	62	53	54	28	127	111	407	208	498	509
30-Jun	9	22	49	91	124	120	96	74	56	40	27	59	64				
1-Jul	8	21	48	90	116	107	81	62	48	36	25	57	58				
2-Jul	0	28	4	272	69	37	41	0	0	13	24	75	44	97	105	492	515
3-Jul	22	7	15	129	120	0	0	23	67	34	4	59	38	53	97	503	523
4-Jul	0	4	0	130	202	16	10	112	38	55	37	67	55	148	80	503	527
5-Jul	6	16	42	83	101	79	7	10	75	0	19	49	40	10	21	524	531
6-Jul	5	15	40	83	102	78	49	33	26	22	18	49	43				
7-Jul	5	14	40	163	60	159	34	55	0	21	17	56	52	111	103	501	521
8-Jul	3	0	0	284	67	45	39	32	38	24	16	71	50	148	82	500	521
9-Jul	5	13	39	82	96	67	39	25	20	18	15	47	38				
10-Jul	5	13	0	25	114	27	14	25	14	4	14	31	23	54	26	508	524
11-Jul	5	1	0	404	135	38	16	29	18	10	12	109	61	137	126	497	521
12-Jul	5	12	32	142	45	12	39	0	13	12	11	47	29	53	37	490	522
13-Jul	4	11	25	81	16	19	8	13	11	11	10	27	19	31	29	494	530
14-Jul	8	0	30	60	78	11	14	10	9	9	8	35	22	44	24	506	517
15-Jul	4	9	21	13	8	0	0	11	28	0	7	11	9	12	19	491	526
Mean Stn Index	7	9	28	97	114	67	42	45	42	22	13		Total =	3470 (57%)	2655 (43%)	494	514

Red index values were estimated with a statistical model built upon the observed pattern across catch indices to date; thus, these values are subject to change as the season progresses.

Net depth = 11 m

Total inshore run = 67.7 million

Run timing = 2 days late

Age composition – A1.2 = 63%

A1.3 = 26%

A2.2 = 7%

A2.3 = 3%

2022	Daily Catch Index by Station (Est. catch from the 200 fathom net if it had fished for 1 hr)											Mean Daily Catch Index		Raw catches		Mean Length (mm)	
												Best for comparison w/ prev years	Best for assessing entry pattern this year				
Date	S2	S4	S6	S8	S10	S12	S14	S16	S18	S20	S22	(Stns 2-10)	(Stns 2-22)	4½" mesh	5⅛" mesh	4½" mesh	5⅛" mesh
10-Jun	1	2	5	8	10	2	32	0	2	0	0	5	6	14	5	498	562
11-Jun	1	2	7	0	0	79	2	4	0	2	1	2	9	1	53	501	527
12-Jun	0	2	8	7	0	16	2	0	4	2	0	3	4	8	14	529	528
13-Jun	2	0	87	19	2	44	0	7	2	0	8	22	16	58	91	514	531
14-Jun	3	0	2	52	70	134	38	0	0	0	1	25	27	73	94	514	524
15-Jun	3	0	13	42	0	74	65	0	10	0	1	12	19	49	37	501	521
16-Jun	4	0	0	82	247	100	0	0	4	3	2	67	40	117	143	497	523
17-Jun	4	15	323	118	114	213	75	15	7	3	2	115	81	233	220	513	534
18-Jun	0	3	27	36	156	41	0	0	0	2	4	44	24	45	74	504	518
19-Jun	0	5	0	252	194	24	0	48	4	0	3	90	48	125	148	507	532
20-Jun	6	7	111	16	47	0	3	46	2	10	4	37	23	86	35	505	533
21-Jun	6	40	204	45	120	48	6	63	120	3	6	83	60	149	159	505	534
22-Jun	8	0	50	41	4	26	18	38	84	0	0	20	24	85	28	519	530
23-Jun	30	0	155	62	4	25	31	0	9	125	8	50	41	94	128	520	529
24-Jun	0	0	123	238	16	92	7	75	0	0	7	75	51	109	152	513	535
25-Jun	9	3	81	261	32	25	0	96	54	22	6	77	54	115	120	516	536
26-Jun	3	0	0	8	3	0	3	56	51	18	4	3	13	3	1	488	533
27-Jun	0	0	8	4	4	0	0	82	3	0	3	3	10	23	15	515	526
28-Jun	0	5	3	45	2	4	0	116	90	0	13	11	25	58	69	521	531
29-Jun	0	3	3	0	0	0	0	113	18	0	0	1	12	31	29	528	529
30-Jun	3	8	0	3	16	0	198	198	38	42	4	6	46	111	141	514	534
1-Jul	0	5	31	2	55	0	0	344	3	30	5	19	43	118	130	516	527
2-Jul	8	36	62	0	2	0	25	237	141	17	0	22	48	162	136	524	525
3-Jul	0	3	0	0	0	0	0	170	27	23	8	1	21	82	58	513	531
4-Jul	0	7	18	0	0	0	0	31	131	16	8	5	19	49	54	511	520
5-Jul	7	4	19	0	0	0	0	18	102	50	8	6	19	58	30	514	520
6-Jul	3	0	0	10	0	9	32	71	68	78	10	3	26	51	89	513	516
7-Jul	3	5	2	12	25	5	32	15	21	0	9	9	12	33	31	515	524
8-Jul	16	8	6	0	13	3	34	4	0	0	8	9	8	24	15	512	531
9-Jul	46	10	2	16	73	9	68	21	104	14	8	29	34	105	100	516	529
10-Jul	18	0	3	10	30	27	32	14	24	3	0	12	15	48	39	517	527
11-Jul	209	0	29	116	21	35	19	20	58	11	11	75	48	121	162	518	526
12-Jul	0	6	13	30	32	8	0	14	0	4	3	16	10	32	21	513	536
13-Jul	25	22	23	21	17	7	12	0	4	3	2	22	12	12	7	500	527
14-Jul	6	11	0	35	14	8	6	4	2	1	1	13	8	21	9	521	534
Mean Stn Index	12	6	40	45	38	30	21	55	34	14	4		Total =	2503 (49%)	2637 (51%)	513	529

Red index values were estimated with a statistical model built upon the observed pattern across catch indices to date; thus, these values are subject to change as the season progresses.

Net depth = 11 m

Total inshore run = 79 million

Run timing = 0 days early/late

Age composition – A1.2 = 33%

A1.3 = 50%

A2.2 = 15%

A2.3 = 2%

Scott Raborn

From: Scott Raborn
Sent: Tuesday, June 20, 2023 8:53 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #11, June 20, 2023
Attachments: PMTF Catch Update #11 June 20 2023.pdf; PMTF_RawData - June 20 2023.pdf; PMTF_WeightLengthRelationships_20June2023.pdf

Attached is tonight's update.

The Daily Catch Index fell off quite a bit today. However, the crews reported calm seas and very clear weather. They also reported, albeit qualitatively, more fish towards the bottom of the net. It may very well be that the passage rate did not fall as dramatically as the data would indicate, but rather fish are passing beneath the net, and catchability was simply lower as compared to yesterday.

Also attached is a figure with weight-length relationships updated through today. The two mesh sizes yielded similar results. Combining all data, the average weight of a Sockeye caught in the test fishery thus far was ~5.6 lbs.

PMTF Stock Composition Status: The boats have transferred and are currently processing genetics samples. The 3rd stock composition should be released tomorrow.

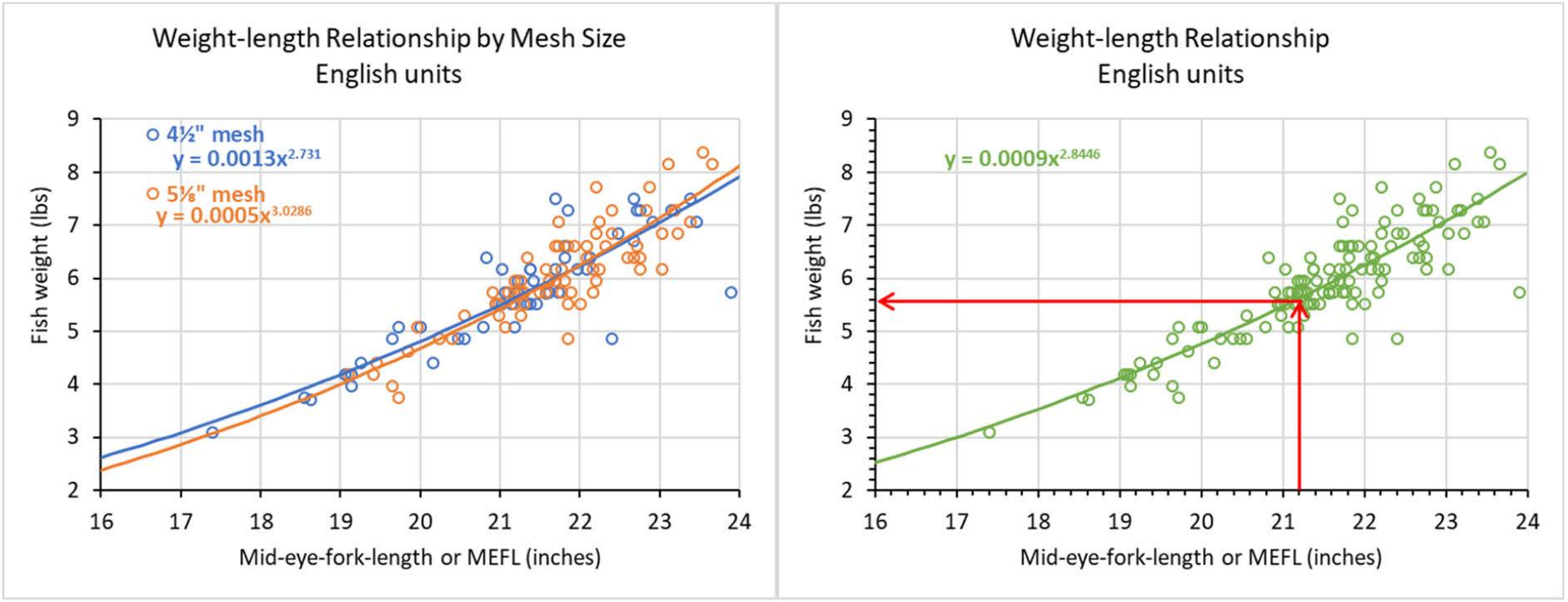
Index by Station

S2: 0
S4: 62
S6: 62
S8: 75
S10: 22
S12: 0
S14: 5
S16: 2
S18: 0

Mean Daily Index = 21

Scott and Jordan

Figure 1. Weight-length relationships based on data from the PMTF through June 20, 2023. The left panel shows these relationships by mesh size; the right panel pools all data. Red arrows indicate the average size of a Sockeye caught at the PMTF thus far (~5.6 lbs).



Scott Raborn

From: Scott Raborn
Sent: Sunday, June 25, 2023 9:01 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #16, June 25, 2023
Attachments: PMTF Catch Update #16 June 25 2023.pdf; PMTF_RawData - June 25 2023.pdf; PMTF_WeightLengthRelationships_25June2023.pdf

Attached is tonight's update. Also included is the updated weight-length relationship based on PMTF data. The average sized fish caught at the PMTF (pooling all fish from both meshes) remains ~5.6 lbs.

PMTF Stock Composition Status: The 6th stock composition (June 25-26) should be released June 27.

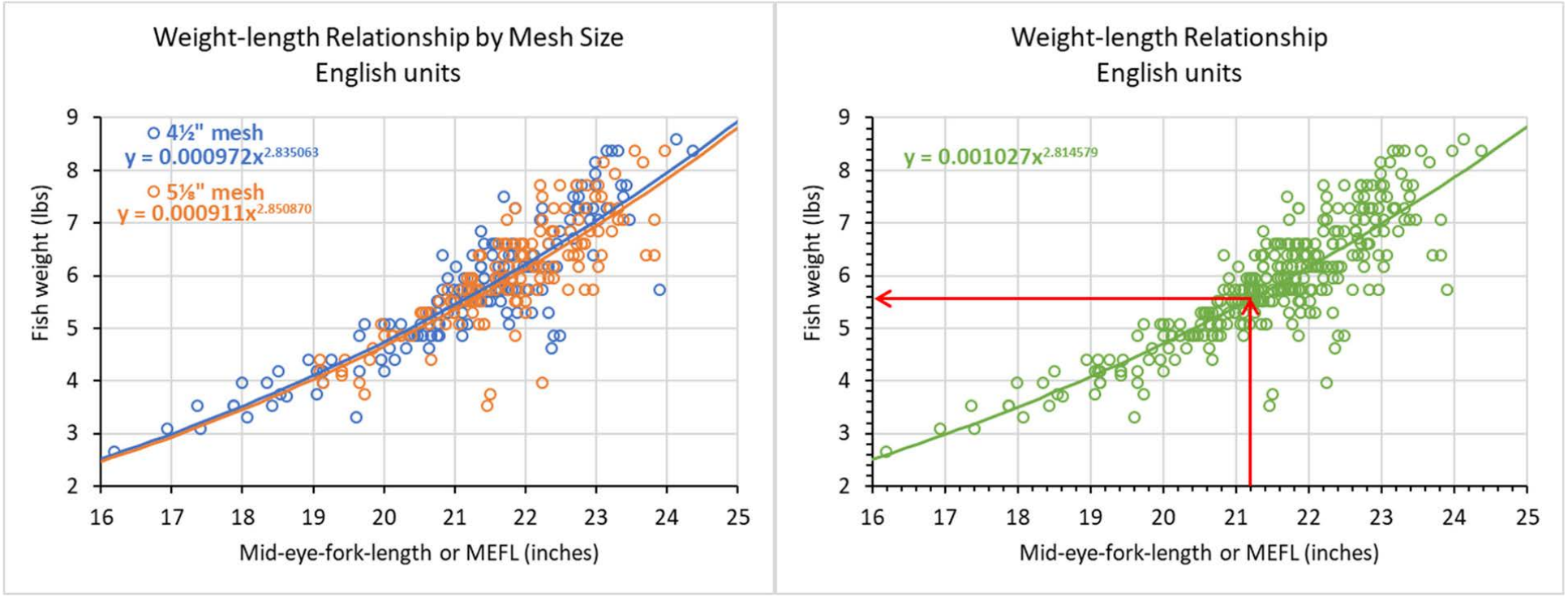
Index by Station

S2: 23
S4: 111
S6: 151
S8: 128
S10: 53
S12: 45
S14: 0
S16: 23
S18: 7
S20: 2
S22: 0

Mean Daily Index = 49

Scott and Jordan

Figure 1. Weight-length relationships based on data from the PMTF through June 25, 2023. The left panel shows these relationships by mesh size; the right panel pools all data. Red arrows indicate the average size of a Sockeye caught at the PMTF thus far (~5.6 lbs).



Scott Raborn

From: Scott Raborn
Sent: Tuesday, June 27, 2023 5:24 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #18, June 27, 2023
Attachments: PMTF Catch Update #18 June 27 2023.pdf; PMTF_RawData - June 27 2023.pdf

Attached is tonight's update.

Our net is typically 200 fathoms in length. Be advised that today, only 150 fathoms were used for Stations 10-18 because one shackle needed repairing. Rather than miss any stations, our ever-vigilant crew finished the day with a shorter net, and the catch indices reported have been adjusted accordingly. All nets will be fully mended by tomorrow, and we will be back to fishing the standard 200 fathoms on both boats.

PMTF Stock Composition Status: There is a chance the 6th stock composition (June 25-26) could be released tonight, but probably expect it before noon tomorrow.

Index by Station

S2: 5
S4: 123
S6: 124
S8: 39
S10: 175
S12: 44
S14: 58
S16: 0
S18: 0

Mean Daily Index = 52

Scott, Jordan, and Michael

Scott Raborn

From: Scott Raborn
Sent: Wednesday, June 28, 2023 7:05 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #19, June 28, 2023
Attachments: PMTF Catch Update #19 June 28 2023.pdf; PMTF_RawData - June 28 2023.pdf; 2023_BB_Age Comp_6-28_#2.pdf

Attached is tonight's update. Also attached is the latest set of age composition estimates.

The Daily Catch Index picked up today making the signal from the test fishery less indicative of an early run timing.

PMTF Stock Composition Status: The 7th stock composition (June 27-28) should be released tomorrow if all goes well.

Index by Station

S2: 0
S4: 305
S6: 292
S8: 159
S10: 53
S12: 57
S14: 47
S16: 0
S18: 0

Mean Daily Index = 83

Scott, Jordan, and Michael

Scott Raborn

From: Scott Raborn
Sent: Thursday, June 29, 2023 8:27 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #20, June 29, 2023
Attachments: PMTF Catch Update #20 June 29 2023.pdf; PMTF_RawData - June 29 2023.pdf; MissLeonaAndTheAUV.pdf

Attached is tonight's update. Also attached is a brief description of the R/V Miss Leona recovering an AUV for UAF.

The Daily Catch Index increased again today, which suggests that run strength at the PMTF is still building. As such, an early run less than the preseason forecast of ~50 million seems unlikely. Without more catch and escapement data, we cannot say much beyond that with any degree of certainty. We also note that the average fish from the test fishery has been about 5.6 lbs (about one pound heavier than last year).

PMTF Stock Composition Status: Given the weather forecast for Saturday, timing for release of the 8th stock composition (June 29-30) is difficult to pin down.

Index by Station

S2: 0
S4: 214
S6: 143
S8: 209
S10: 306
S12: 145
S14: 47
S16: 5
S18: 0
S20: 0

Mean Daily Index = 97

Scott, Jordan, and Michael

Scott Raborn

From: Scott Raborn
Sent: Monday, July 3, 2023 8:43 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #23 July 3, 2023
Attachments: PMTF Catch Update #23 July 3 2023.pdf; PMTF_RawData - July 3 2023.pdf

Attached is tonight's update.

The crews were able to cover Stations 2-24. Tomorrow looks doubtful, but a few sets may be possible early in the day for the inside stations. The R/V Miss Leona will start at Station 10 and attempt as many sets inward as possible.

Strong catch indices at Port Moller continue; moreover, the outside stations picked up. Each day this happens indicates that a later, stronger run is more likely.

PMTF Stock Composition Status: Timing for release of the 9th stock composition (July 2) could be later tonight, but possibly tomorrow morning.

Index by Station

S2: 0
S4: 19
S6: 166
S8: 217
S10: 269
S12: 72
S14: 0
S16: 43
S18: 5
S20: 66
S22: 58
S24: 15

Mean Daily Index = 83

Scott, Jordan, and Michael

Scott Raborn

From: Scott Raborn
Sent: Tuesday, July 4, 2023 3:33 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #24 July 4, 2023
Attachments: PMTF Catch Update #24 July 4 2023.pdf; PMTF_RawData - July 4 2023.pdf

Attached is tonight's update.

The R/V Miss Leona was able to set at Stations 2-10 today despite poor weather. The outer stations were unfishable. Tomorrow's weather forecast looks better.

"Fishable weather" does not necessarily equate to ideal weather for fishing of course, and catch indices from today may been down because of poor weather. We expect catches at Port Moller to start declining, but today's fishing conditions complicates that signal.

PMTF Stock Composition Status: Timing for release of the 10th stock composition (July 3-5) could be released July 6.

Index by Station

S2: 0
S4: 46
S6: 35
S8: 48
S10: 93

Mean Daily Index = 42

Scott, Jordan, and Michael

Scott Raborn

From: Scott Raborn
Sent: Thursday, July 6, 2023 6:56 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #26 July 6, 2023
Attachments: PMTF Catch Update #26 July 6 2023.pdf; PMTF_RawData - July 6 2023.pdf

Attached is tonight's update.

The Daily Catch Index has rebounded after two days of less than optimum fishing conditions, which causes their results to be somewhat inconclusive. Today's index suggests that Port Moller is not dropping as fast as those days would indicate. Strong indices tomorrow would bolster this interpretation and indicate a decent tail to the run.

PMTF Stock Composition Status: Timing for release of the 10th stock composition (July 3-5) should be later tonight.

Index by Station

S2: 0
S4: 0
S6: 111
S8: 128
S10: 210
S12: 118
S14: 21
S16: 64
S18: 0
S20: 8

Mean Daily Index = 62

Scott, Jordan, and Michael

Scott Raborn

From: Scott Raborn
Sent: Friday, July 7, 2023 7:42 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #27 July 7, 2023
Attachments: PMTF Catch Update #27 July 7 2023.pdf; PMTF_RawData - July 7 2023.pdf

Attached is tonight's update.

The Daily Catch Index was down from yesterday indicating that the passage rate at Port Moller has fallen off. Our best guess is that at least half the run is left to show inshore.

PMTF Stock Composition Status: Timing for release of the 11th stock composition (July 6-7) should be tomorrow.

Index by Station

S2: 5
S4: 21
S6: 133
S8: 64
S10: 46
S12: 14
S14: 49
S16: 0
S18: 0
S20: 0
S22: 67

Mean Daily Index = 36

Scott, Jordan, and Michael

Scott Raborn

From: Scott Raborn
Sent: Monday, July 10, 2023 12:35 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Catch Update #29 July 9, 2023
Attachments: PMTF Catch Update #29 July 9 2023.pdf; PMTF_RawData - July 9 2023.pdf

Attached is yesterday's catch update. Rough weather limited fishing, but the crews were able to get a few sets in. The weather is better today, and we should get full coverage of the transect. So far today, catches at Stations 8-14 continue to be down.

We suspect the effect of weather on sampling this season has hindered our ability to interpret Port Moller catch indices. Basically, the larger vessels used for the current program have allowed us to fish in conditions that historically would not have been fishable. Interpreting the magnitude of catch indices produced from such effort is arduous at best. Nevertheless, these samples provided a steady flow of stock and age composition estimates. While accurately forecasting the timing and magnitude of daily catch plus escapement from Port Moller continues to be evasive, age and stock composition estimates have proved reliable. These results alone justify sampling with two vessels capable of staying on and covering the full transect.

PMTF Stock Composition Status: Not enough genetic samples were collected on July 8-9 to allow for a stock composition estimate. The boats are fishing away from each other today, and we will reevaluate once the vessels meet up tomorrow.

Index by Station

S4: 2
S6: 21
S8: 19
S10: 76
S12: Not fished
S14: Not fished
S16: Not fished
S18: 0

Mean Daily Index = 18

Scott, Jordan, and Michael

Appendix B

ADF&G inseason stock composition estimates for the Port Moller Test Fishery, 2023.

<u>Estimates by Sample Dates</u>

Stock Comp #1: June 14-16
Year-end Figures
Stock Comp #2: June 17-18
Stock Comp #3: June 19-20
Stock Comp #4: June 21-22
Stock Comp #5: June 23-24
Stock Comp #6: June 25-26
Stock Comp #7: June 27-28
Stock Comp #8: June 29-30
Stock Comp #9: July 2
Stock Comp #10: July 3-5
Stock Comp #11: July 6-7
Stock Comp #12: July 10-11

Scott Raborn

From: Scott Raborn
Sent: Saturday, June 17, 2023 6:06 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #1—samples from June 14-16, 2023
Attachments: PM genetics inseason 6.14-16.2023.pdf

Everyone,

Attached is the 1st stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery.

Stock Composition (Stations 2-22 from June 14-16):

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	0.9%	0.0%	2.8%
Ugashik	1.0%	0.0%	6.5%
Egegik	34.7%	26.6%	42.6%
Naknek	6.5%	1.9%	12.1%
Alagnak	0.2%	0.0%	1.3%
Kvichak	0.7%	0.0%	3.6%
Nushagak	24.0%	15.9%	32.0%
Wood	16.5%	9.5%	24.5%
Igushik	14.2%	7.9%	21.1%
Togiak	0.5%	0.0%	2.3%
Kuskokwim	0.8%	0.0%	3.9%

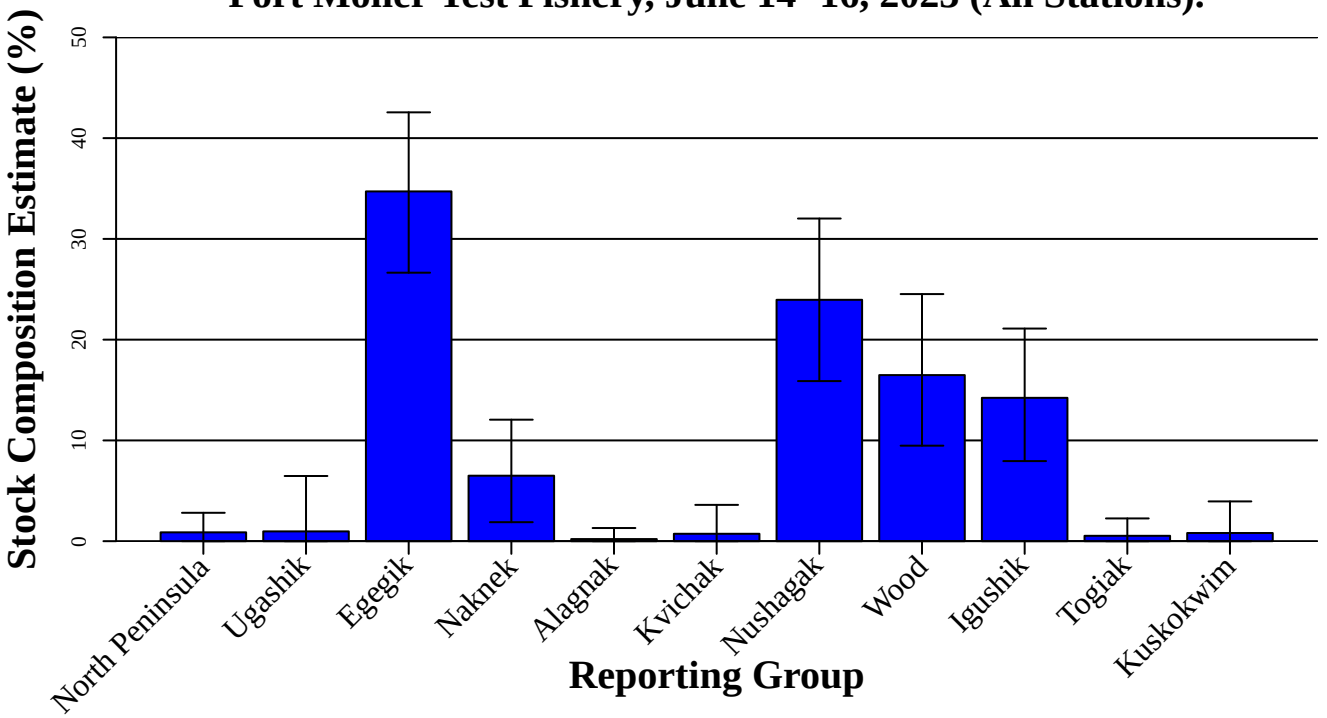
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
June 14−16, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for June 14−16, 2023. A total of 237 fish were sampled and 190 were analyzed (181 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.9%	0.0%	2.8%
Ugashik	1.0%	0.0%	6.5%
Egegik	34.7%	26.6%	42.6%
Naknek	6.5%	1.9%	12.1%
Alagnak	0.2%	0.0%	1.3%
Kvichak	0.7%	0.0%	3.6%
Nushagak	24.0%	15.9%	32.0%
Wood	16.5%	9.5%	24.5%
Igushik	14.2%	7.9%	21.1%
Togiak	0.5%	0.0%	2.3%
Kuskokwim	0.8%	0.0%	3.9%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, June 14−16, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: June 17, 2023
6:00 PM

Figure 1. The 2023 Port Moller Daily Catch Index (averaged from Stations 2-22) parsed by district based on genetic stock composition estimates (colored stacked area curves scaled to the left vertical axis). Observed C+E (colored stacked columns) is also parsed by district and scaled to the right vertical axis. Colors are the same for both times series of data (stacked curves and columns).

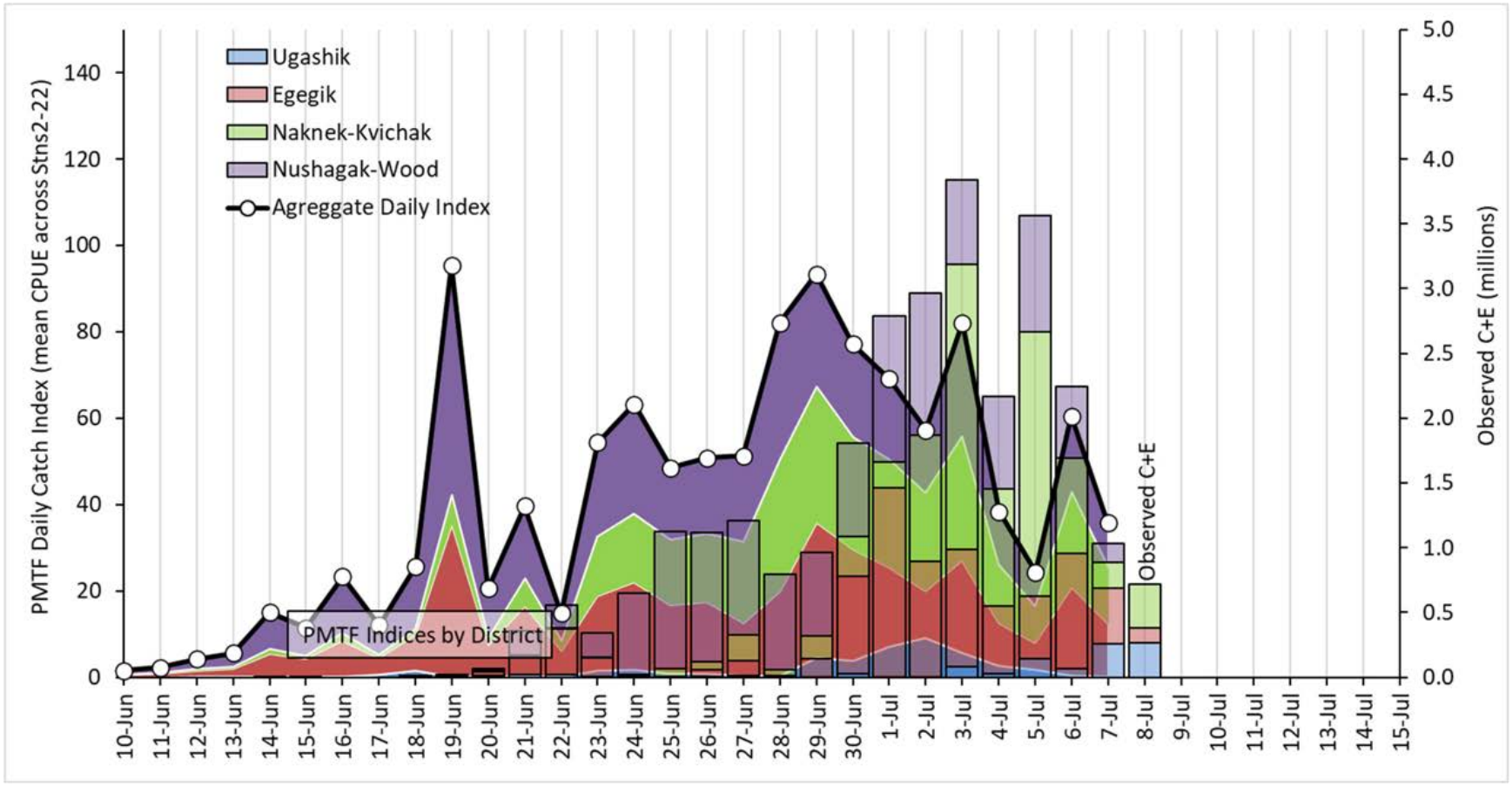
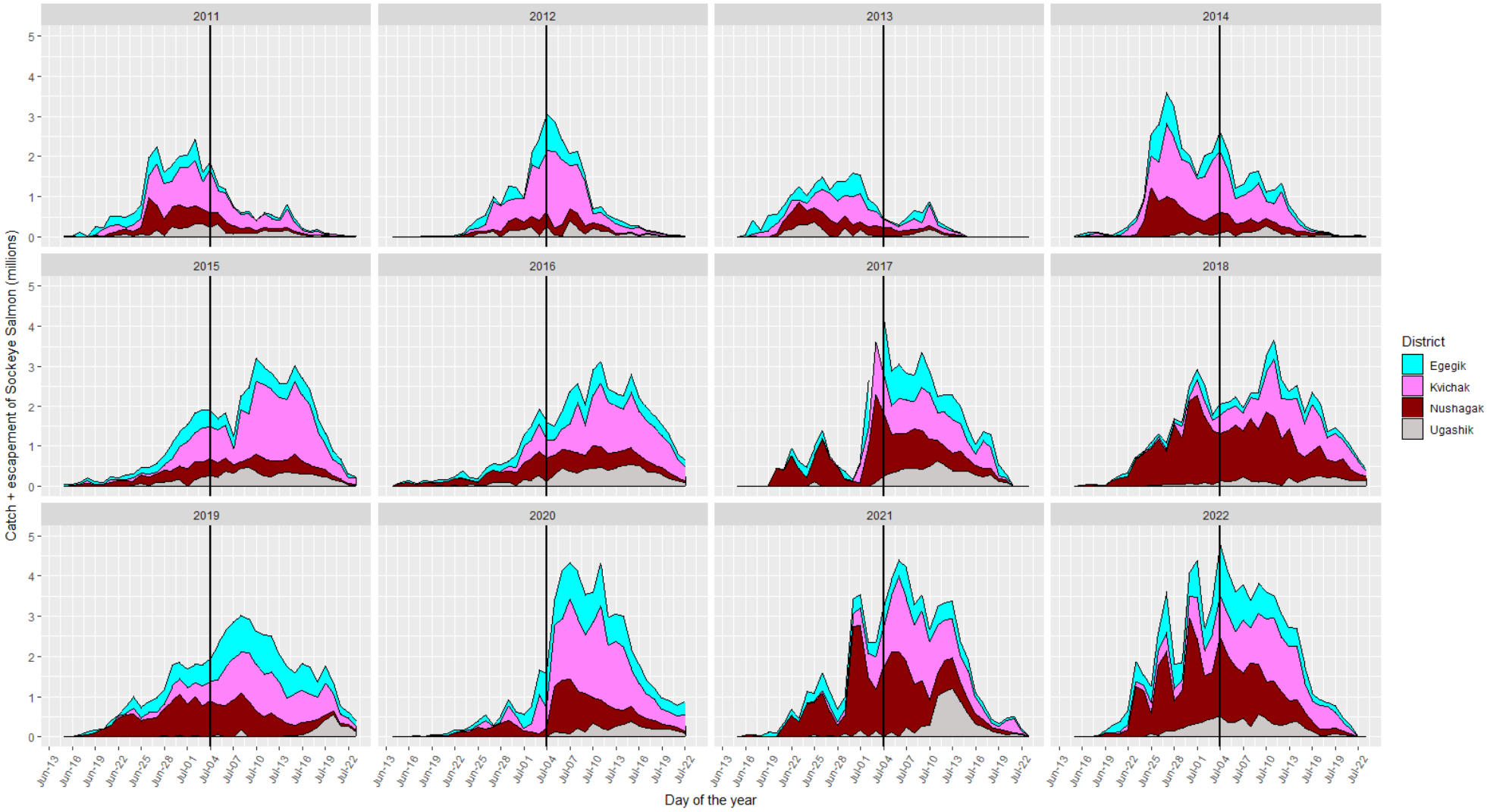
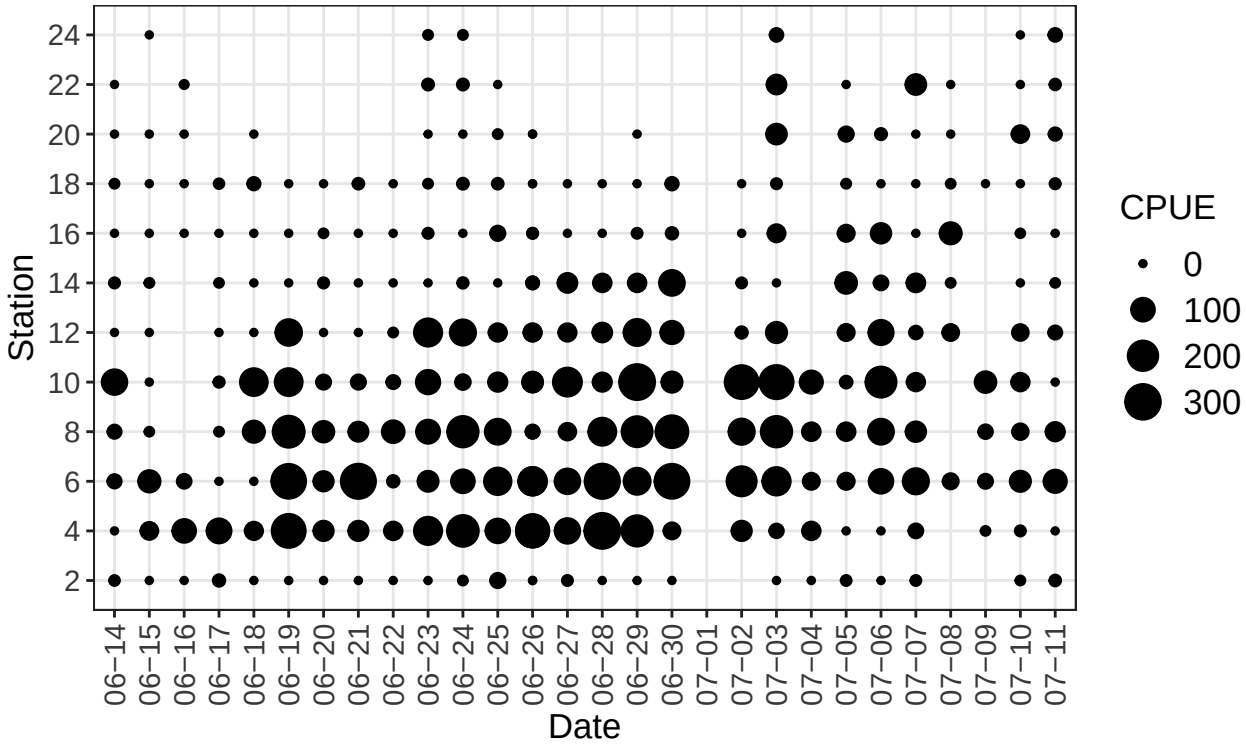


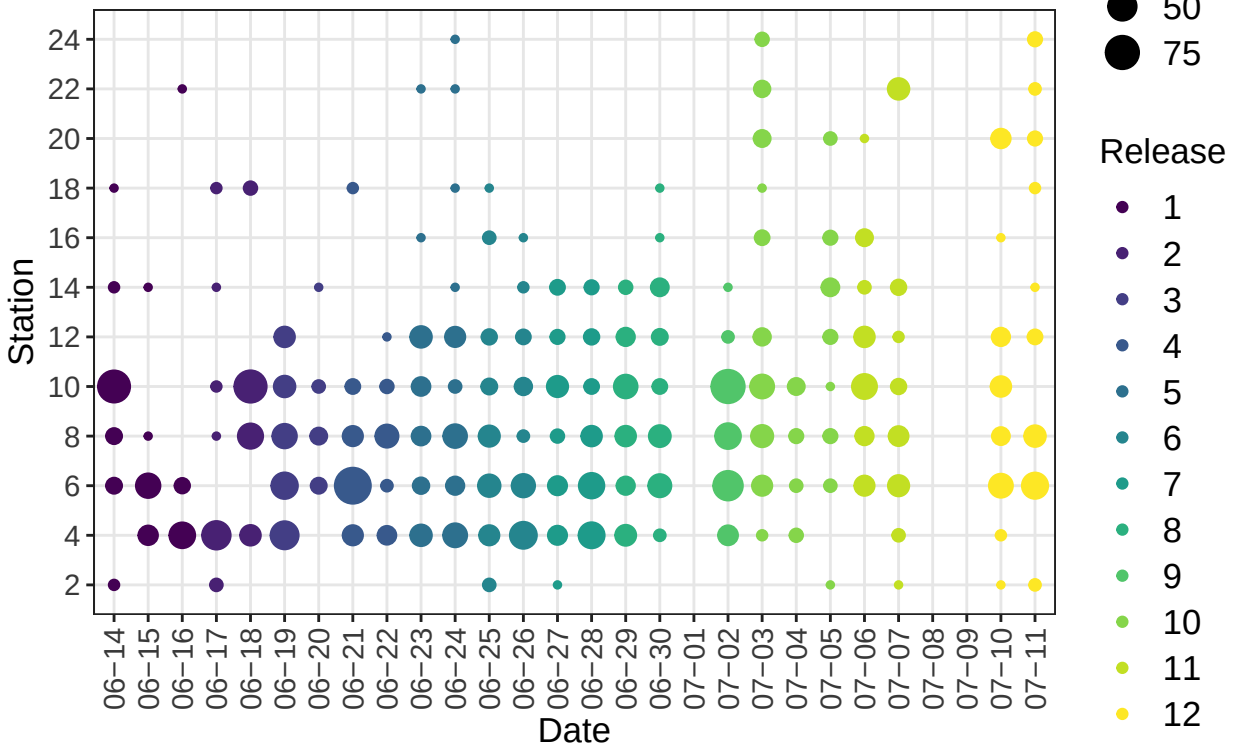
Figure 2. Catch plus escapement by district for 2011-2022. The black vertical line specifies July 4 in each year to facilitate comparisons.



Port Moller Test Fishery 2023
Catch Per Unit of Effort by Date and Station

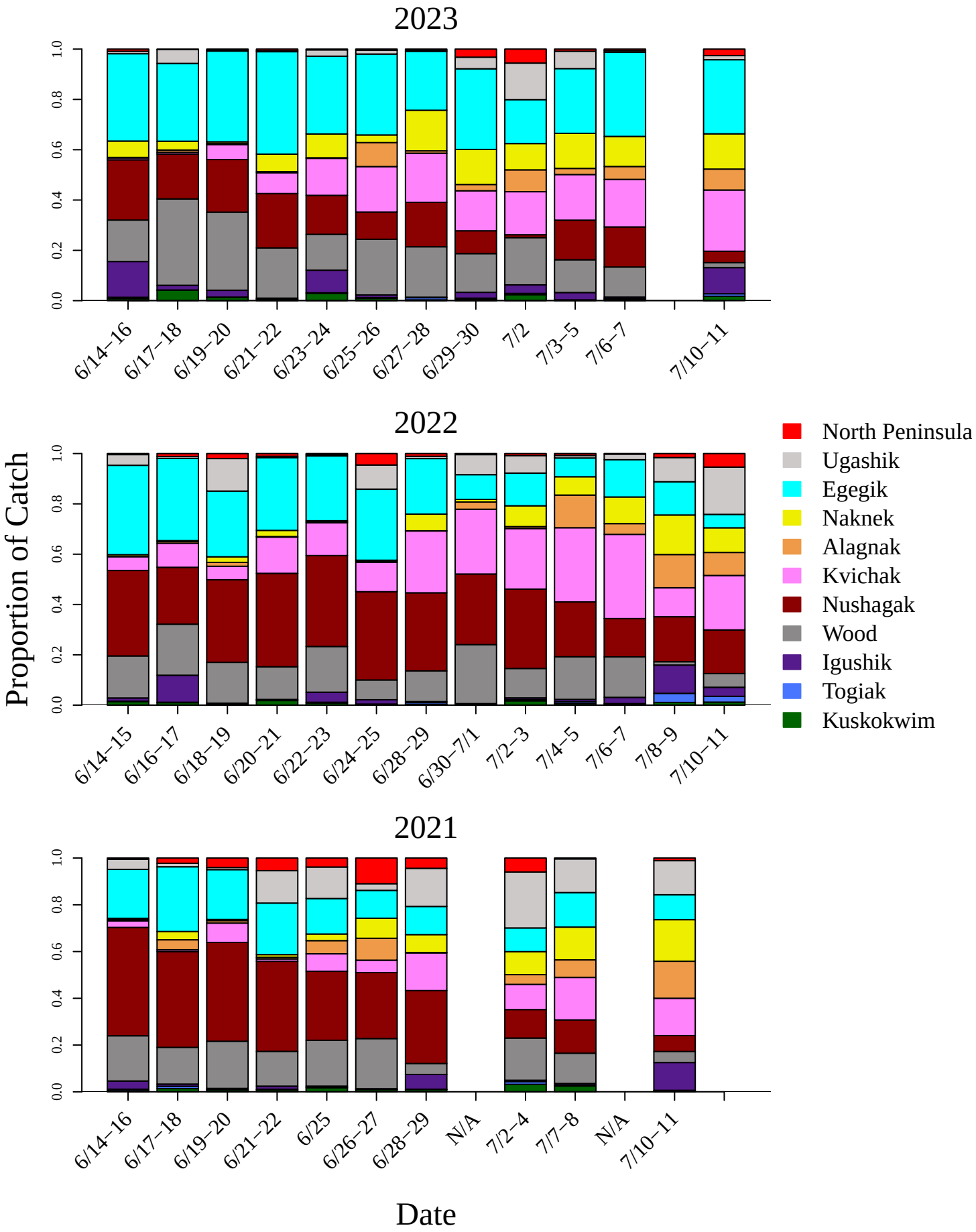


Number of Genetic Samples Analyzed by Date, Station, and Estimate Release Number



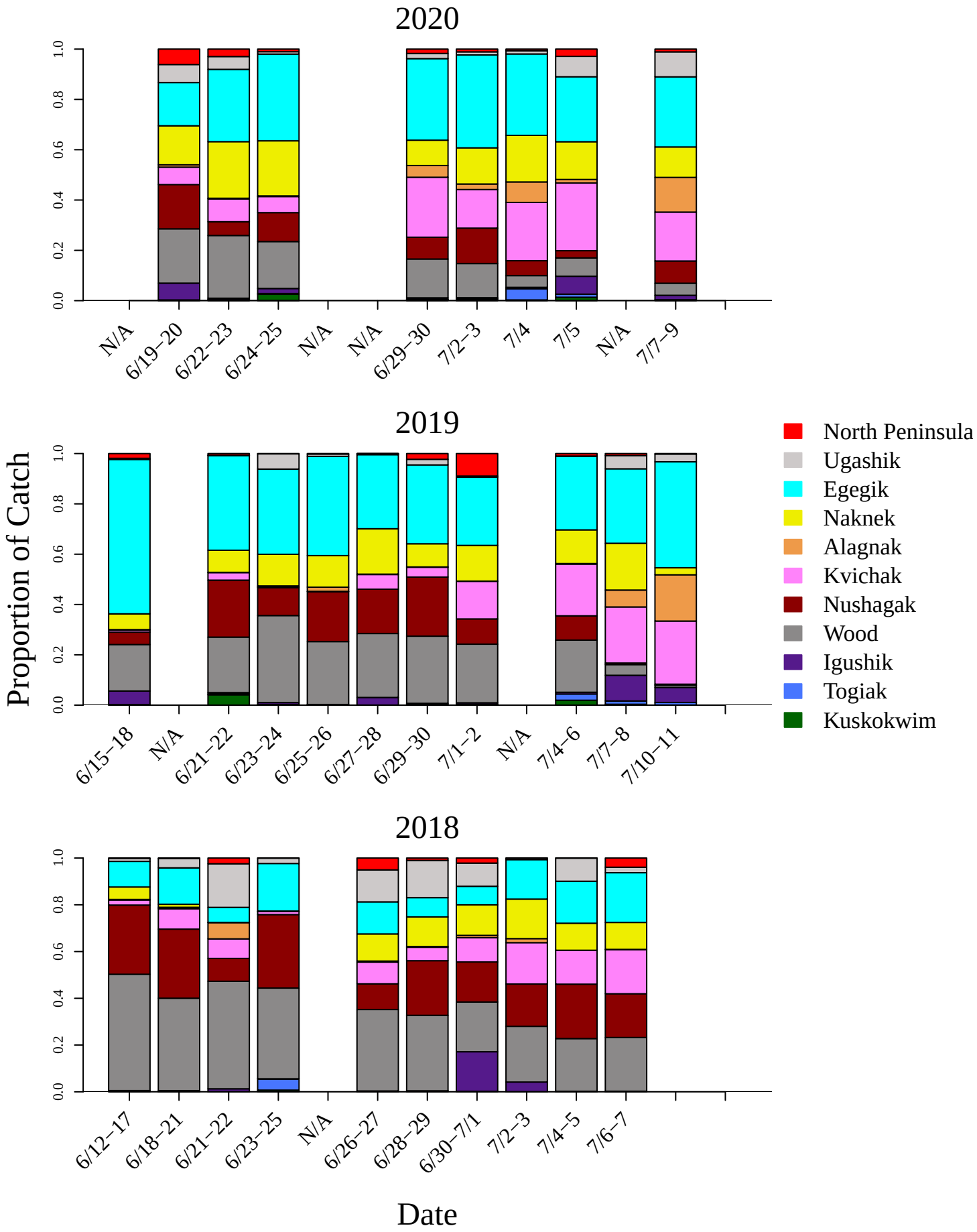
Reported as of: July 12, 2023
3:00 PM

Historical Comparison of Stock Composition Estimates



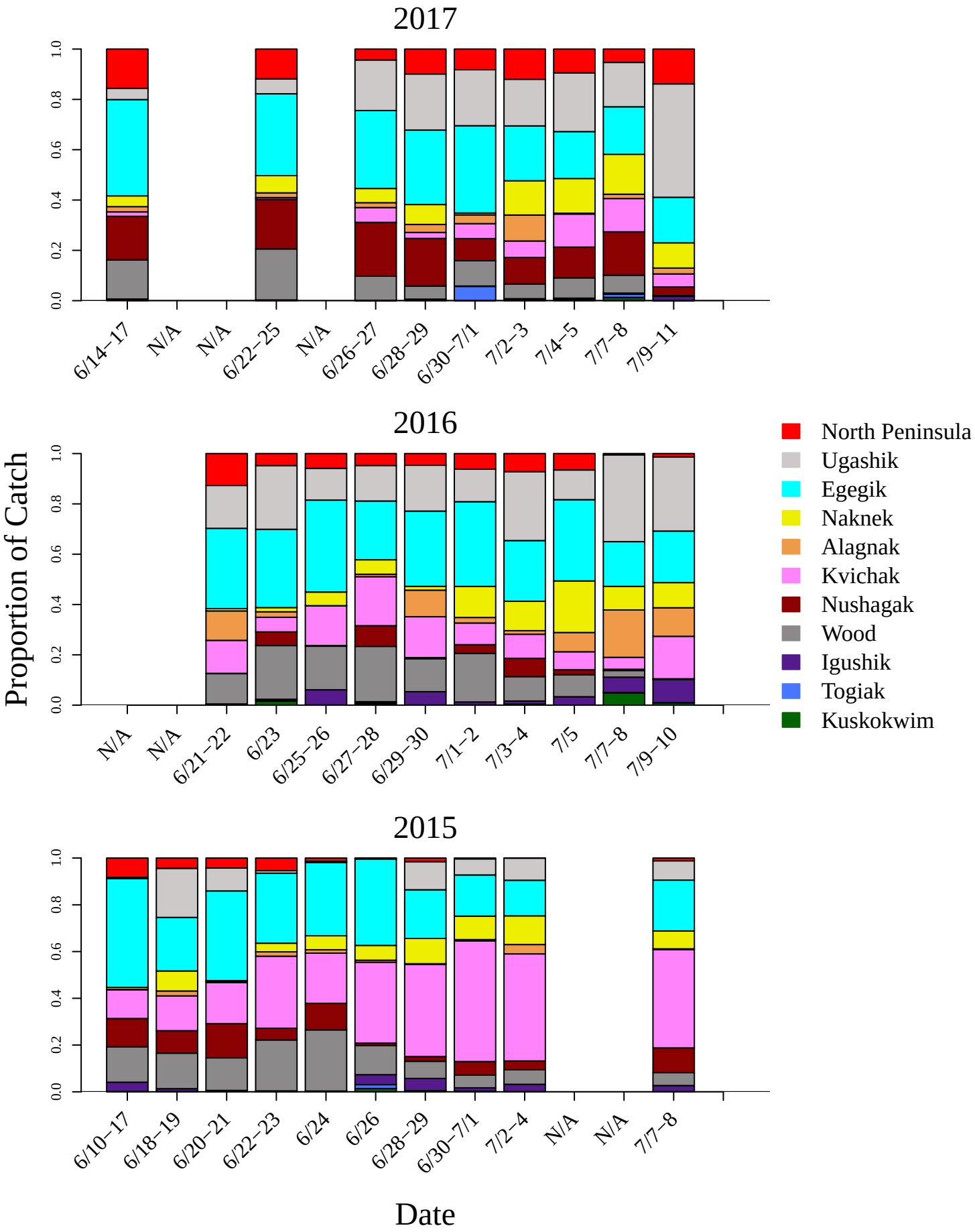
Reported as of: July 12, 2023
3:00 PM

Historical Comparison of Stock Composition Estimates



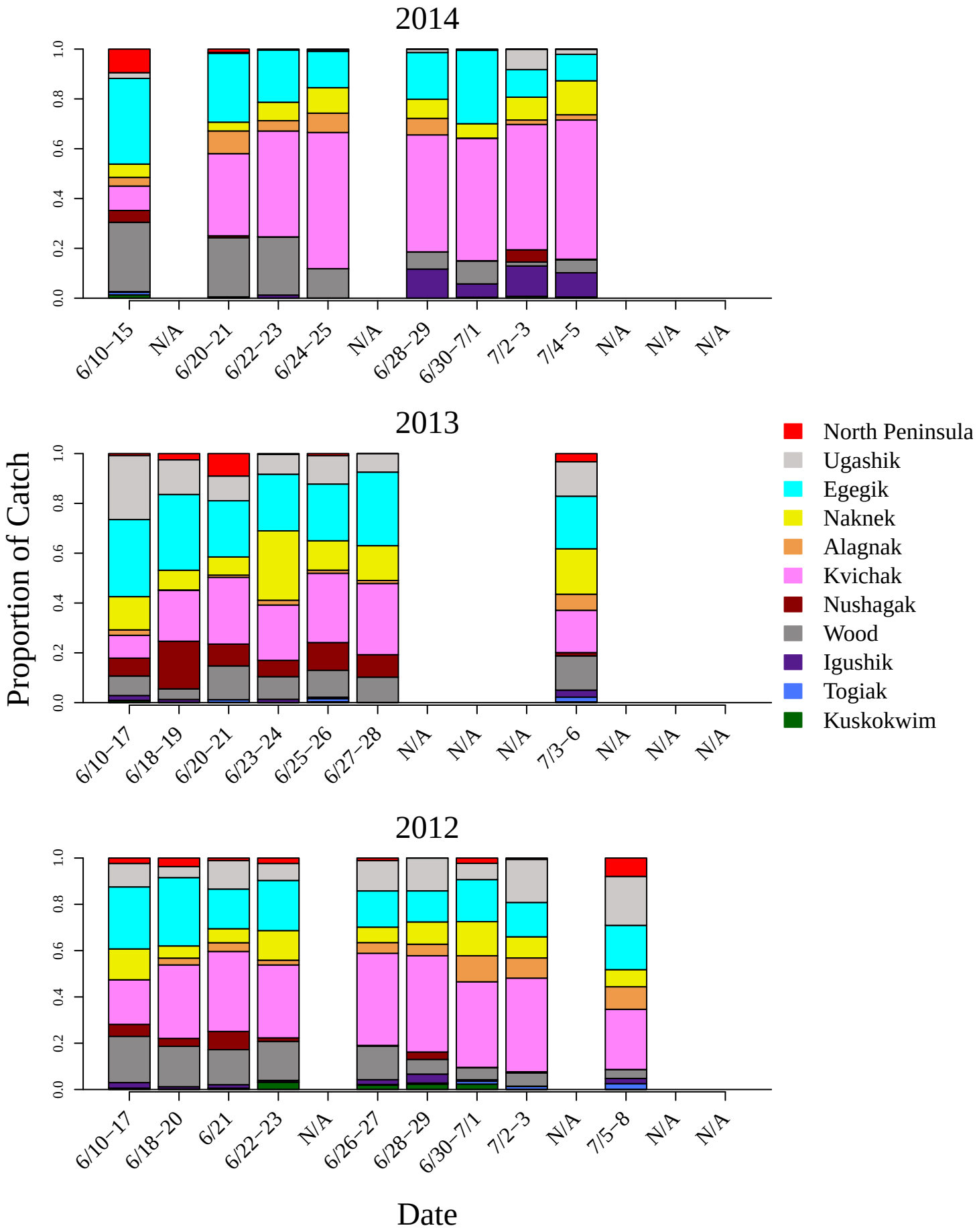
Reported as of: July 12, 2023
3:00 PM

Historical Comparison of Stock Composition Estimates



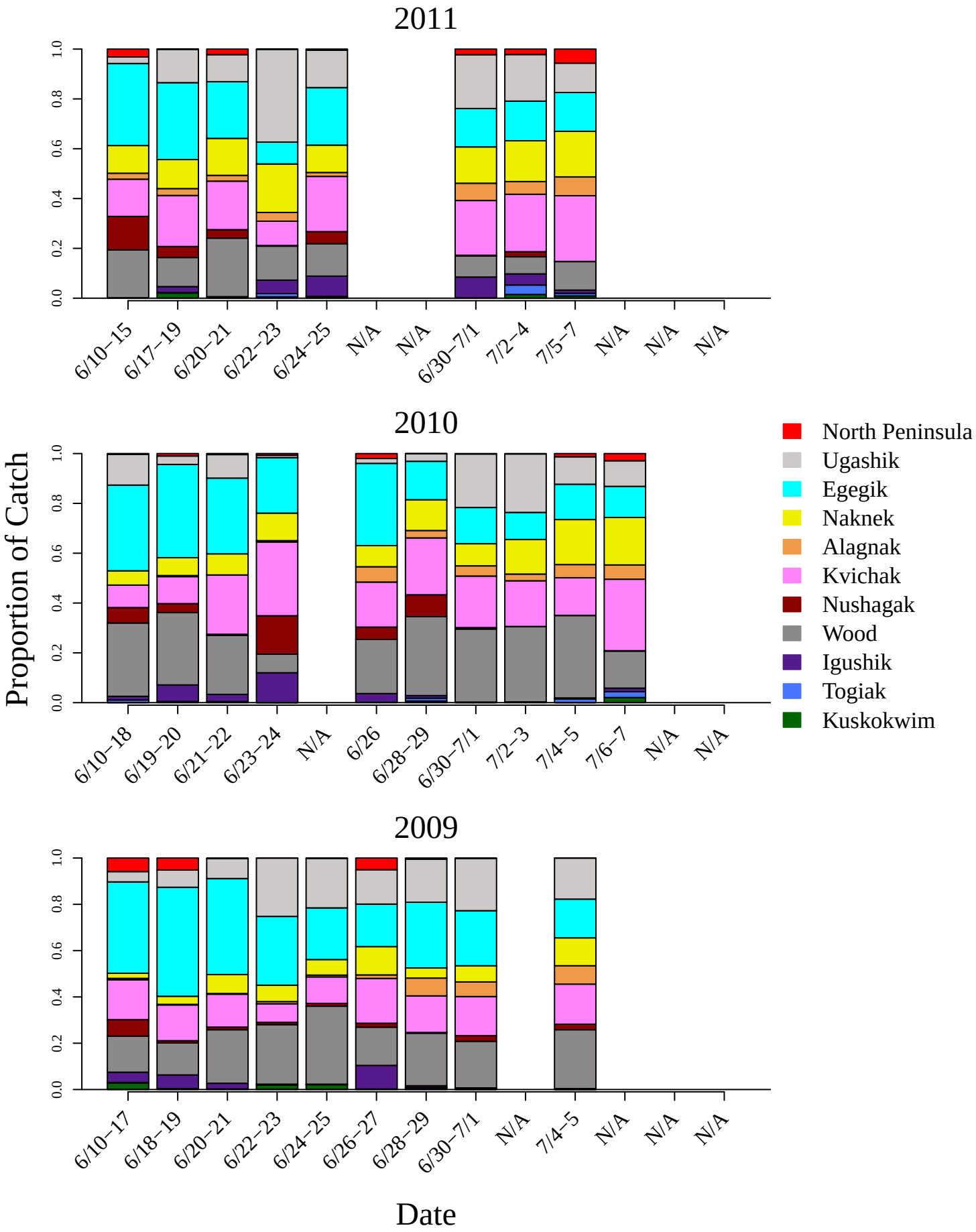
Reported as of: July 12, 2023
3:00 PM

Historical Comparison of Stock Composition Estimates



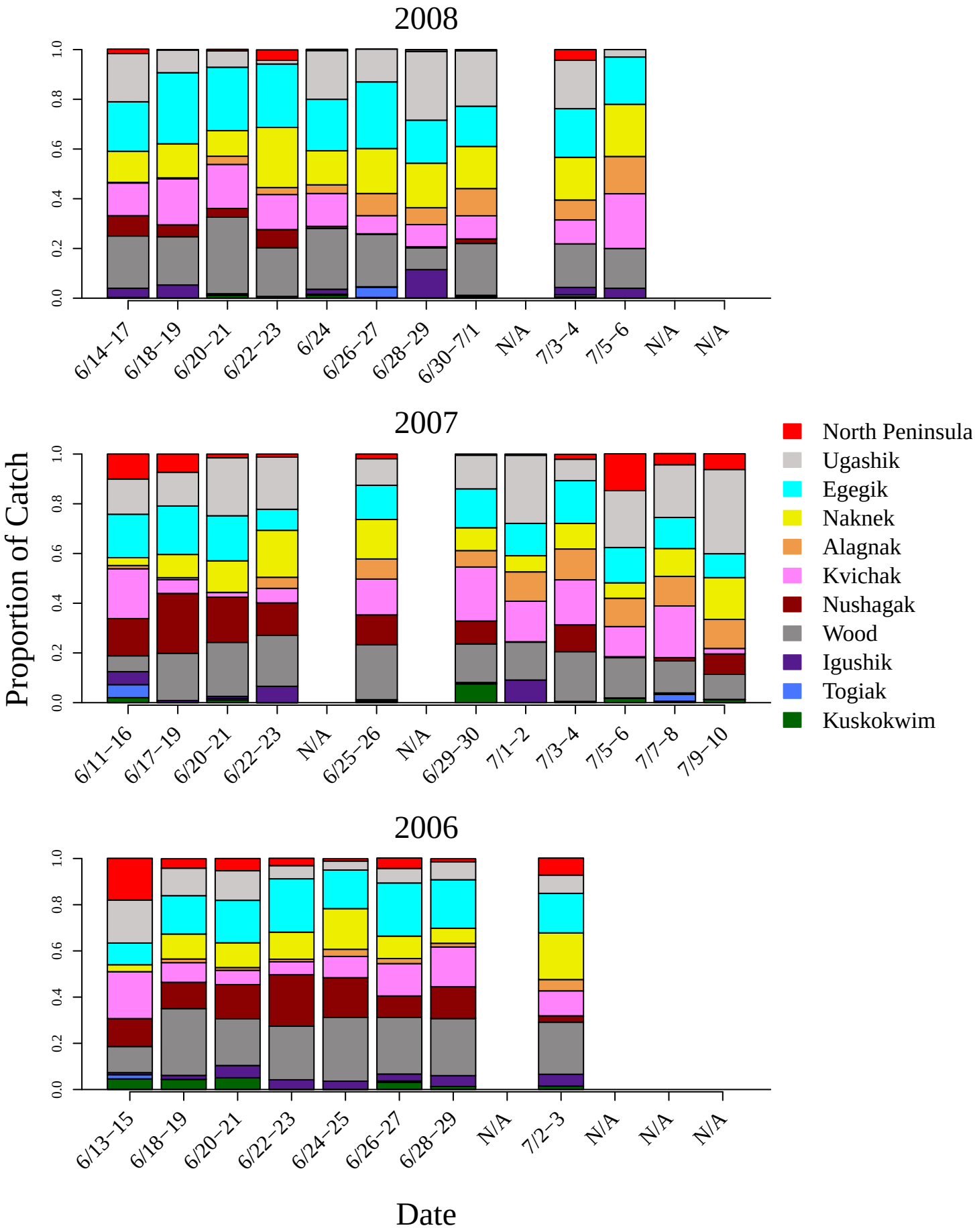
Reported as of: July 12, 2023
3:00 PM

Historical Comparison of Stock Composition Estimates



Reported as of: July 12, 2023
3:00 PM

Historical Comparison of Stock Composition Estimates



Reported as of: July 12, 2023
3:00 PM

Scott Raborn

From: Scott Raborn
Sent: Monday, June 19, 2023 5:04 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #2—samples from June 17-18, 2023
Attachments: PM genetics inseason 6.17-18.2023.pdf

Everyone,

Attached is the 2nd stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery.

Stock Composition (Stations 2-20 from June 17-18):

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	0.2%	0.0%	1.0%
Ugashik	5.5%	0.0%	17.3%
Egegik	30.9%	20.1%	41.2%
Naknek	3.5%	0.0%	9.7%
Alagnak	0.9%	0.0%	6.2%
Kvichak	0.7%	0.0%	3.6%
Nushagak	17.8%	9.4%	26.5%
Wood	34.3%	25.7%	42.7%
Igushik	1.9%	0.0%	9.8%
Togiak	0.1%	0.0%	0.5%
Kuskokwim	4.2%	0.0%	9.7%

Scott and Jordan

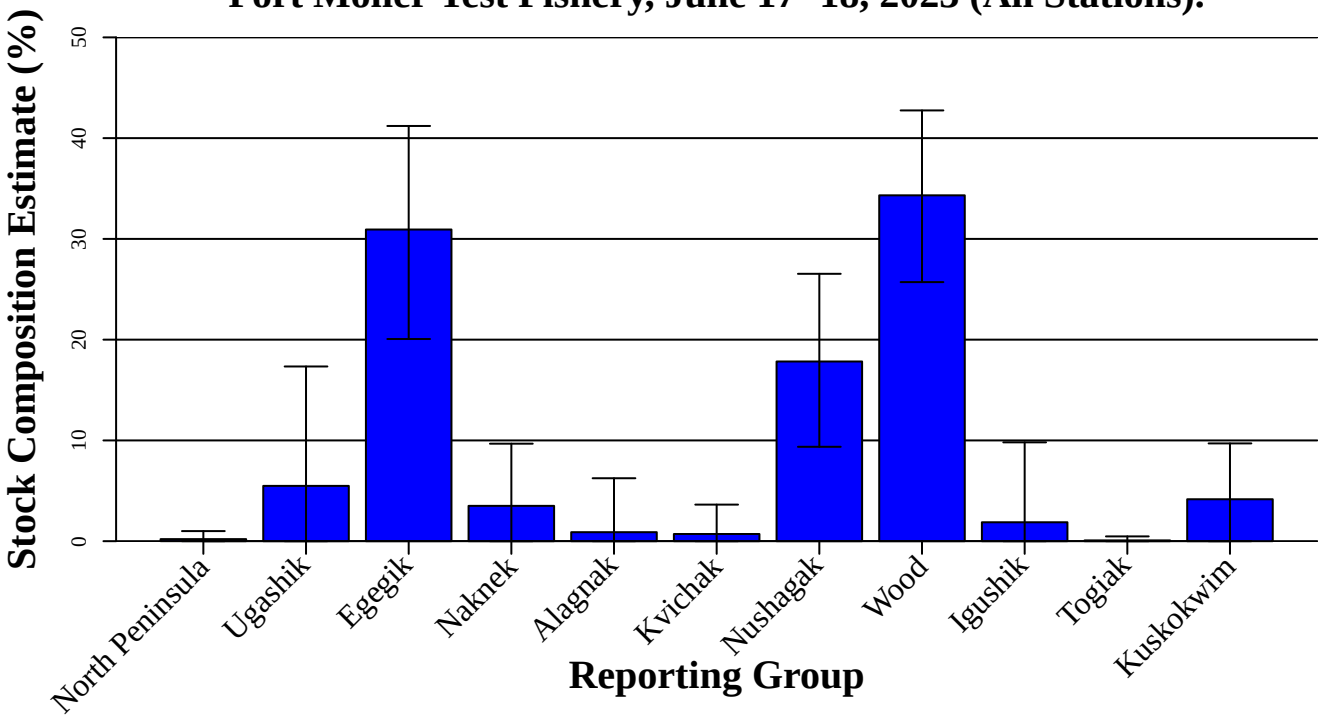
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
June 17−18, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for June 17−18, 2023. A total of 256 fish were sampled and 190 were analyzed (185 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.2%	0.0%	1.0%
Ugashik	5.5%	0.0%	17.3%
Egegik	30.9%	20.1%	41.2%
Naknek	3.5%	0.0%	9.7%
Alagnak	0.9%	0.0%	6.2%
Kvichak	0.7%	0.0%	3.6%
Nushagak	17.8%	9.4%	26.5%
Wood	34.3%	25.7%	42.7%
Igushik	1.9%	0.0%	9.8%
Togiak	0.1%	0.0%	0.5%
Kuskokwim	4.2%	0.0%	9.7%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, June 17−18, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: June 19, 2023
5:00 PM

Scott Raborn

From: Scott Raborn
Sent: Wednesday, June 21, 2023 9:07 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #3—samples from June 19-20, 2023
Attachments: PM genetics inseason 6.19-20.2023.pdf

Everyone,

Attached is the 3rd stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery.

Stock Composition (Stations 2-18 from June 19-20):

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.5%	0.0%	2.7%
Ugashik	0.2%	0.0%	1.3%
Egegik	36.1%	29.1%	42.9%
Naknek	0.7%	0.0%	4.5%
Alagnak	0.4%	0.0%	3.0%
Kvichak	6.0%	1.3%	11.3%
Nushagak	20.9%	12.7%	29.7%
Wood	31.0%	21.9%	40.4%
Igushik	2.7%	0.0%	10.2%
Togiak	0.2%	0.0%	1.0%
Kuskokwim	1.2%	0.0%	5.6%

Scott and Jordan

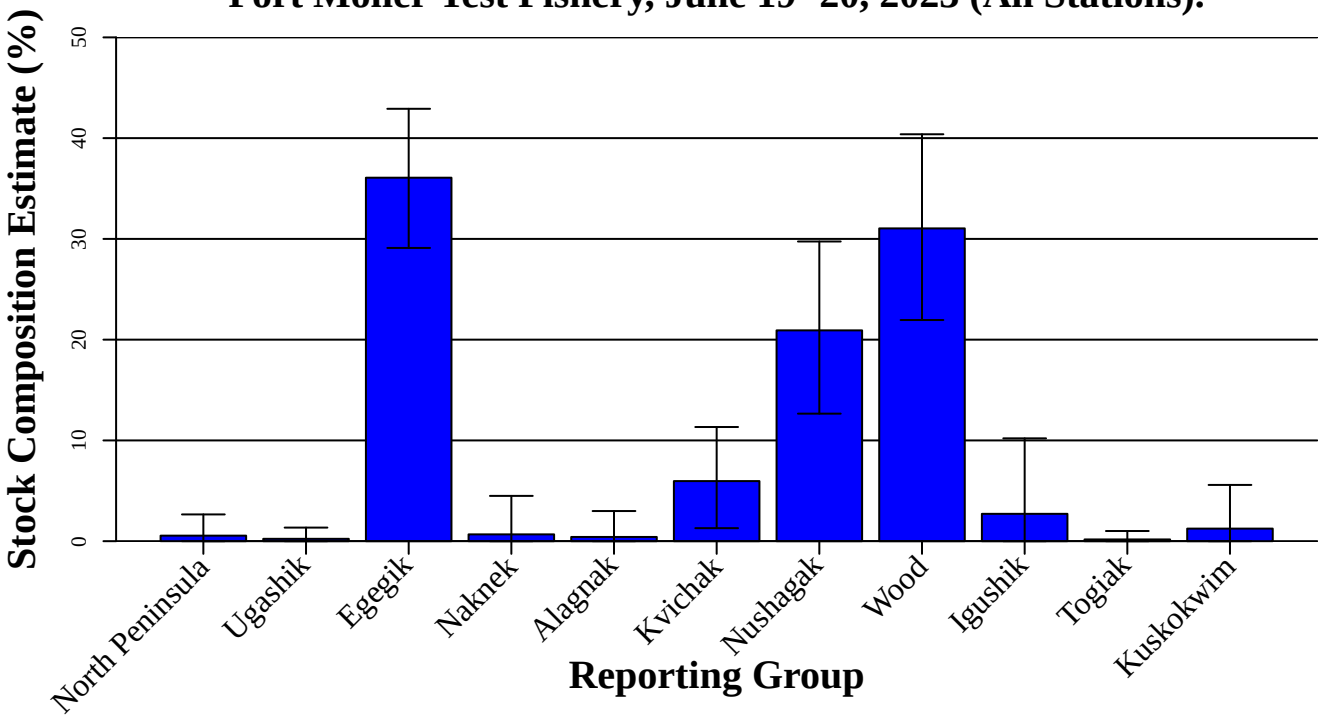
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
June 19−20, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for June 19−20, 2023. A total of 534 fish were sampled and 190 were analyzed (189 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.5%	0.0%	2.7%
Ugashik	0.2%	0.0%	1.3%
Egegik	36.1%	29.1%	42.9%
Naknek	0.7%	0.0%	4.5%
Alagnak	0.4%	0.0%	3.0%
Kvichak	6.0%	1.3%	11.3%
Nushagak	20.9%	12.7%	29.7%
Wood	31.0%	21.9%	40.4%
Igushik	2.7%	0.0%	10.2%
Togiak	0.2%	0.0%	1.0%
Kuskokwim	1.2%	0.0%	5.6%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, June 19−20, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: June 21, 2023
9:00 PM

Scott Raborn

From: Scott Raborn
Sent: Friday, June 23, 2023 3:09 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #4—samples from June 21-22, 2023
Attachments: PM genetics inseason 6.21-22.2023.pdf

Everyone,

Attached is the 4th stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery.

Stock Composition (Stations 2-18 from June 21-22):

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	0.7%	0.0%	3.3%
Ugashik	0.3%	0.0%	1.9%
Egegik	40.7%	32.2%	48.9%
Naknek	6.9%	2.8%	12.2%
Alagnak	0.5%	0.0%	3.5%
Kvichak	8.3%	2.2%	14.8%
Nushagak	21.6%	14.3%	29.3%
Wood	19.9%	13.0%	27.3%
Igushik	0.3%	0.0%	2.2%
Togiak	0.1%	0.0%	0.5%
Kuskokwim	0.6%	0.0%	2.8%

Scott and Jordan

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES
Advisory Announcement

Doug Vincent-Lang, Commissioner
Sam Rabung, Director

Contact:
Tyler Dann, Fisheries Geneticist
Sara Gilk-Baumer, Principal Geneticist
Phone: (907) 267-2201
Fax: (907) 267-2442

Anchorage Headquarters Office
333 Raspberry Road
Anchorage, Alaska, 99518

Date Issued: June 23, 2023
Time: 3:00 p.m.

Port Moller Sockeye Salmon Stock Composition Summary
June 21-22, 2023 – All Stations

This is the Alaska Department of Fish and Game with an update regarding genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for June 21-22, 2023.

A total of 282 fish were sampled and 190 were analyzed (189 had adequate data to include in the analysis).

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	0.7%	0.0%	3.3%
Ugashik	0.3%	0.0%	1.9%
Egegik	40.7%	32.2%	48.9%
Naknek	6.9%	2.8%	12.2%
Alagnak	0.5%	0.0%	3.5%
Kvichak	8.3%	2.2%	14.8%
Nushagak	21.6%	14.3%	29.3%
Wood	19.9%	13.0%	27.3%
Igushik	0.3%	0.0%	2.2%
Togiak	0.1%	0.0%	0.5%
Kuskokwim	0.6%	0.0%	2.8%

These and past results can be found at:
http://www.adfg.alaska.gov/index.cfm?adfg=fishinggeneconservationlab.bbaysockeye_results

Scott Raborn

From: Scott Raborn
Sent: Sunday, June 25, 2023 5:02 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #5—samples from June 23-24, 2023
Attachments: PM genetics inseason 6.23-24.2023.pdf

Everyone,

Attached is the 5th stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery.

Stock Composition (Stations 2-24 from June 23-24):

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	0.3%	0.0%	1.6%
Ugashik	2.5%	0.0%	11.5%
Egegik	30.9%	20.3%	41.9%
Naknek	9.4%	3.5%	15.9%
Alagnak	0.2%	0.0%	1.4%
Kvichak	14.7%	6.7%	24.4%
Nushagak	15.5%	8.7%	23.2%
Wood	14.3%	7.4%	21.7%
Igushik	9.0%	0.0%	17.7%
Togiak	0.2%	0.0%	1.2%
Kuskokwim	2.9%	0.0%	8.5%

Scott and Jordan

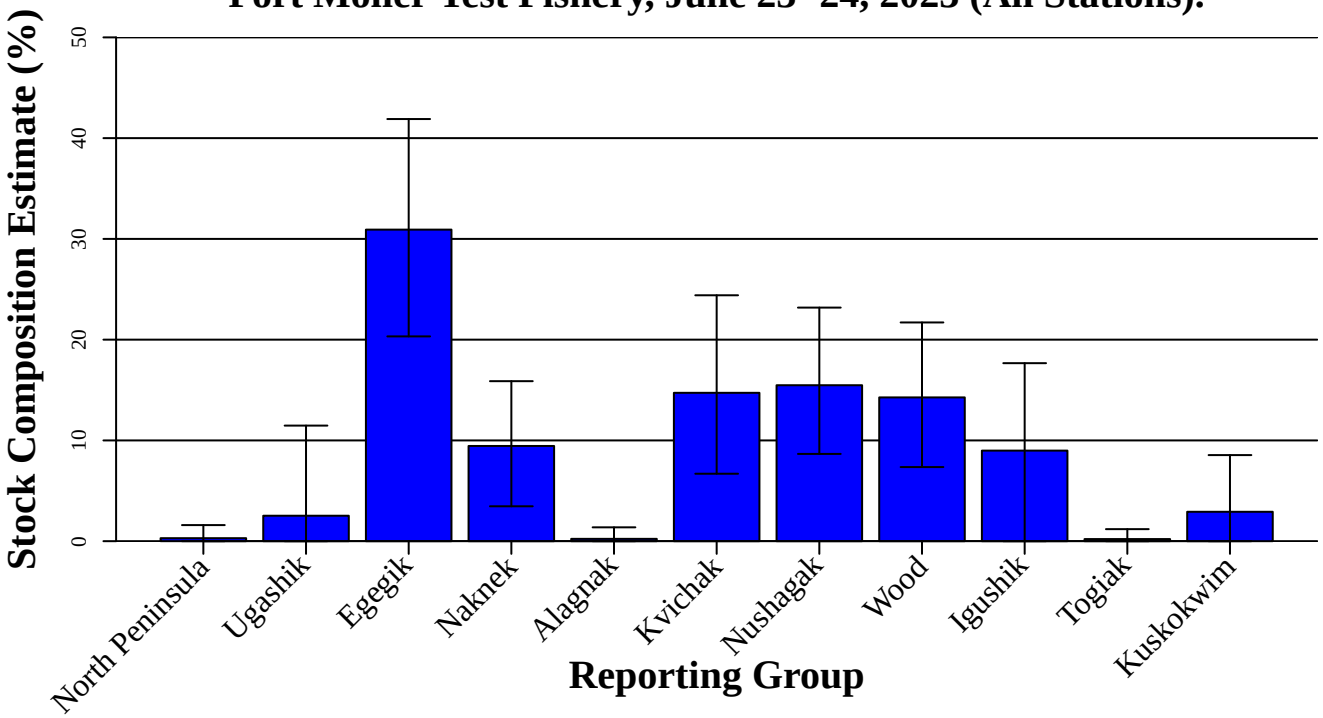
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
June 23−24, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for June 23−24, 2023. A total of 562 fish were sampled and 190 were analyzed (189 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.3%	0.0%	1.6%
Ugashik	2.5%	0.0%	11.5%
Egegik	30.9%	20.3%	41.9%
Naknek	9.4%	3.5%	15.9%
Alagnak	0.2%	0.0%	1.4%
Kvichak	14.7%	6.7%	24.4%
Nushagak	15.5%	8.7%	23.2%
Wood	14.3%	7.4%	21.7%
Igushik	9.0%	0.0%	17.7%
Togiak	0.2%	0.0%	1.2%
Kuskokwim	2.9%	0.0%	8.5%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, June 23−24, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of June 25, 2023
5:00 PM

Scott Raborn

From: Scott Raborn
Sent: Wednesday, June 28, 2023 11:07 AM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #6—samples from June 25-26, 2023
Attachments: PM genetics inseason 6.25-26.2023.pdf

Everyone,

Attached is the 6th stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery.

Stock Composition (Stations 2-22 from June 25-26):

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.5%	0.0%	2.4%
Ugashik	1.5%	0.0%	10.5%
Egegik	32.2%	22.4%	41.2%
Naknek	3.0%	0.0%	8.6%
Alagnak	9.5%	4.4%	15.5%
Kvichak	18.1%	10.5%	25.9%
Nushagak	10.8%	1.9%	20.0%
Wood	22.1%	13.5%	31.2%
Igushik	1.0%	0.0%	7.5%
Togiak	0.3%	0.0%	1.7%
Kuskokwim	0.9%	0.0%	3.7%

Scott and Jordan

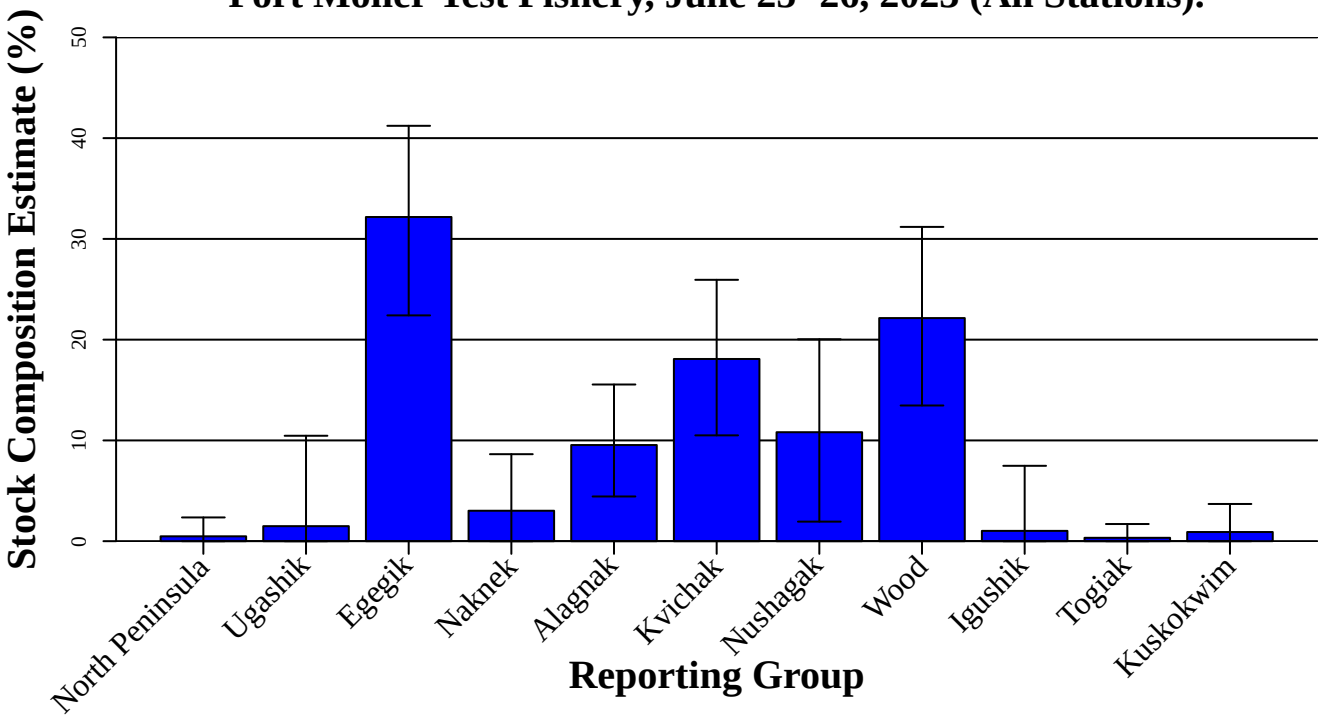
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
June 25−26, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for June 25−26, 2023. A total of 595 fish were sampled and 190 were analyzed (188 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.5%	0.0%	2.4%
Ugashik	1.5%	0.0%	10.5%
Egegik	32.2%	22.4%	41.2%
Naknek	3.0%	0.0%	8.6%
Alagnak	9.5%	4.4%	15.5%
Kvichak	18.1%	10.5%	25.9%
Nushagak	10.8%	1.9%	20.0%
Wood	22.1%	13.5%	31.2%
Igushik	1.0%	0.0%	7.5%
Togiak	0.3%	0.0%	1.7%
Kuskokwim	0.9%	0.0%	3.7%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, June 25−26, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: June 28, 2023
11:00 AM

Scott Raborn

From: Scott Raborn
Sent: Thursday, June 29, 2023 8:25 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #7—samples from June 27-28, 2023
Attachments: PM genetics inseason 6.27-28.2023.pdf; PMTF_DailyIndexAndCE_ByDistrict.pdf

Everyone,

Attached is the 7th stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery. Also attached is a figure showing these results weighted by the magnitude of the indices they represent along with catch plus escapement (C+E) for 2023 (Figure 1) and C+E by district and date for 2011-2022 (Figure 2).

Stock Composition (Stations 2-18 from June 27-28):

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	0.4%	0.0%	2.0%
Ugashik	0.5%	0.0%	3.2%
Egegik	23.4%	16.5%	30.3%
Naknek	16.2%	9.8%	23.1%
Alagnak	0.9%	0.0%	5.0%
Kvichak	19.5%	12.4%	27.8%
Nushagak	17.7%	10.1%	25.5%
Wood	20.0%	13.6%	26.9%
Igushik	0.2%	0.0%	1.1%
Togiak	0.9%	0.0%	2.9%
Kuskokwim	0.3%	0.0%	1.8%

Scott, Jordan, and Michael

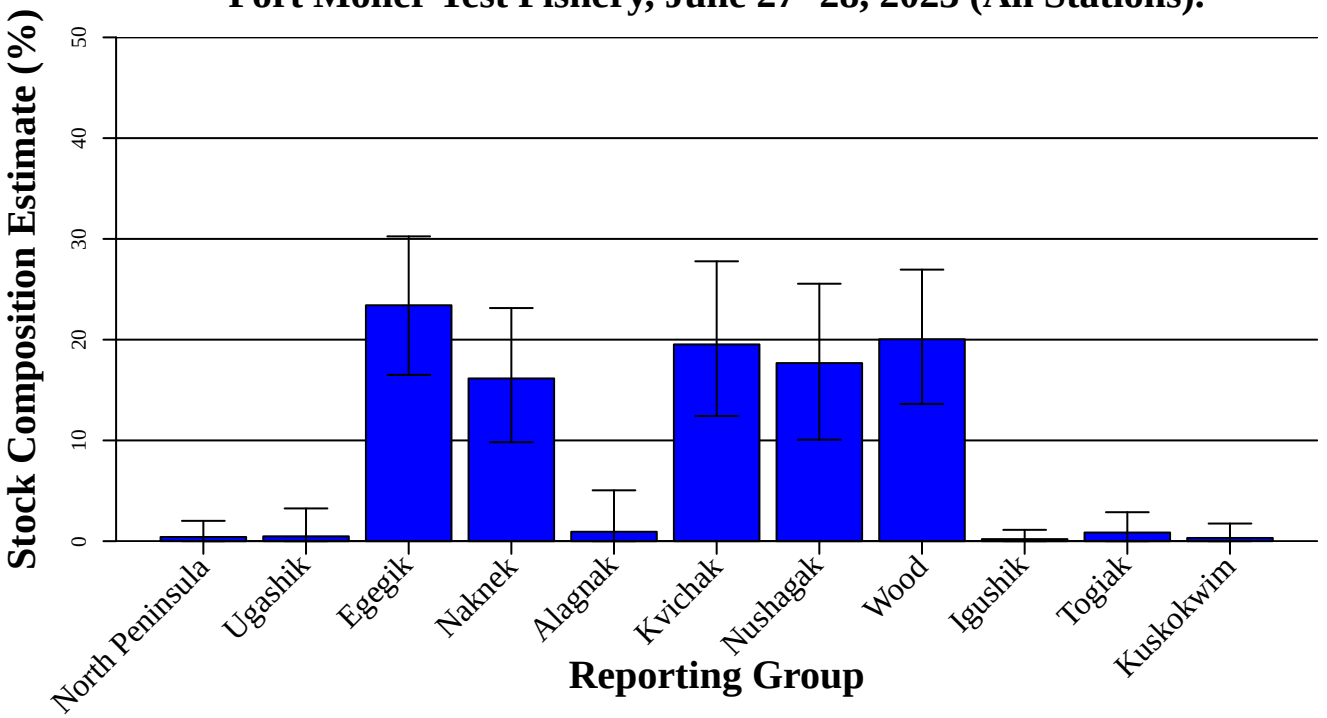
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
June 27−28, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for June 27−28, 2023. A total of 553 fish were sampled and 190 were analyzed (188 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.4%	0.0%	2.0%
Ugashik	0.5%	0.0%	3.2%
Egegik	23.4%	16.5%	30.3%
Naknek	16.2%	9.8%	23.1%
Alagnak	0.9%	0.0%	5.0%
Kvichak	19.5%	12.4%	27.8%
Nushagak	17.7%	10.1%	25.5%
Wood	20.0%	13.6%	26.9%
Igushik	0.2%	0.0%	1.1%
Togiak	0.9%	0.0%	2.9%
Kuskokwim	0.3%	0.0%	1.8%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, June 27−28, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: June 29, 2023
8:00 PM

Scott Raborn

From: Scott Raborn
Sent: Saturday, July 1, 2023 8:33 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #8—samples from June 29-30, 2023
Attachments: PM genetics inseason 6.29-30.2023.pdf; CE_ByYearDayDistrict.pdf

Everyone,

Attached is the 8th stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery. Also attached is a figure showing these results weighted by the magnitude of the indices they represent along with catch plus escapement (C+E) for 2023 (Figure 1) and C+E by district and date for 2011-2022 (Figure 2).

The boats were unable to fish today due to inclement weather. They will attempt some sets tomorrow.

Stock Composition (Stations 2-20 from June 29-30):

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	3.2%	0.0%	8.0%
Ugashik	4.6%	0.0%	18.2%
Egegik	32.1%	18.7%	42.2%
Naknek	13.9%	9.0%	19.8%
Alagnak	2.5%	0.0%	10.2%
Kvichak	15.9%	10.6%	22.0%
Nushagak	9.1%	0.0%	18.8%
Wood	15.4%	8.2%	23.2%
Igushik	2.3%	0.0%	9.8%
Togiak	0.5%	0.0%	1.9%
Kuskokwim	0.5%	0.0%	2.5%

Scott, Jordan, and Michael

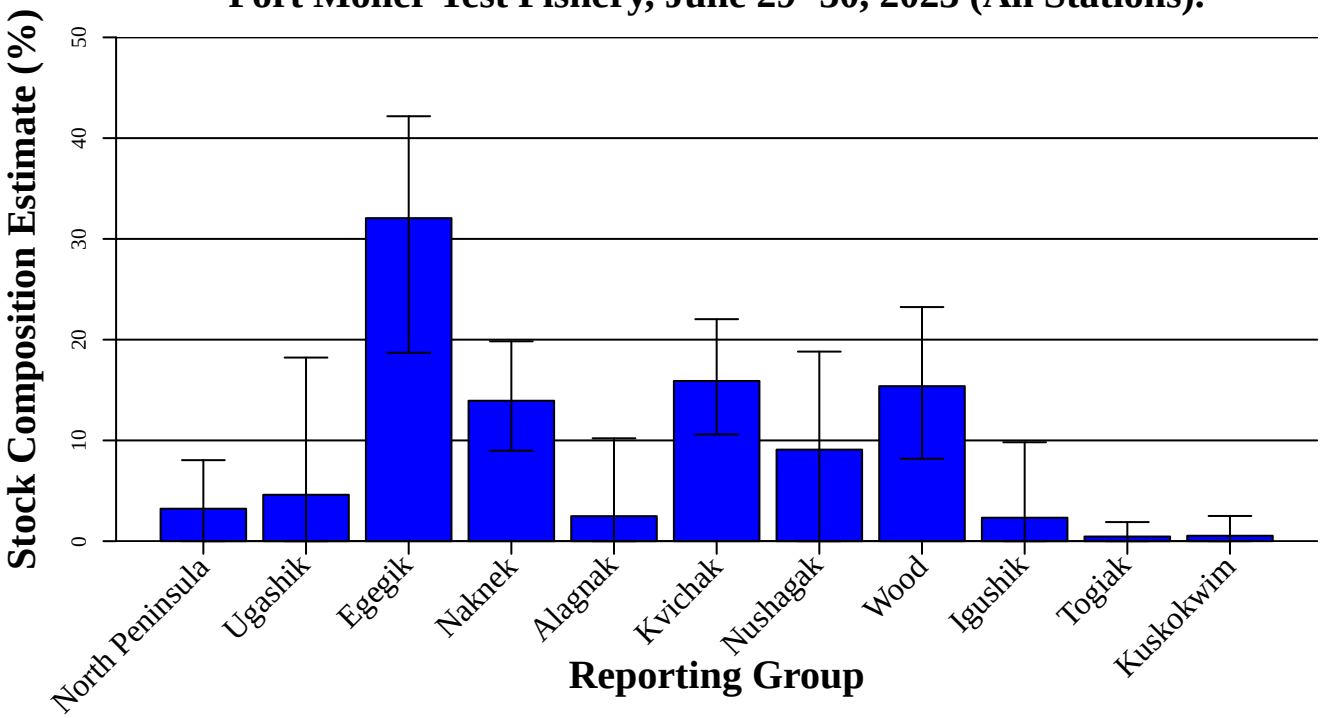
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
June 29−30, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for June 29−30, 2023. A total of 826 fish were sampled and 190 were analyzed (185 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	3.2%	0.0%	8.0%
Ugashik	4.6%	0.0%	18.2%
Egegik	32.1%	18.7%	42.2%
Naknek	13.9%	9.0%	19.8%
Alagnak	2.5%	0.0%	10.2%
Kvichak	15.9%	10.6%	22.0%
Nushagak	9.1%	0.0%	18.8%
Wood	15.4%	8.2%	23.2%
Igushik	2.3%	0.0%	9.8%
Togiak	0.5%	0.0%	1.9%
Kuskokwim	0.5%	0.0%	2.5%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, June 29−30, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: July 1, 2023
8:00 PM

Scott Raborn

From: Scott Raborn
Sent: Monday, July 3, 2023 10:59 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #9—samples from July 2, 2023
Attachments: PM genetics inseason 7.2.2023.pdf; CE_ByYearDayDistrict.pdf

Everyone,

Attached is the 9th stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery. Also attached is a figure showing these results weighted by the magnitude of the indices they represent along with catch plus escapement (C+E) for 2023 (Figure 1) and C+E by district and date for 2011-2022 (Figure 2).

Stock Composition (Stations 4-18 from July 2):

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	5.6%	1.5%	10.6%
Ugashik	14.6%	2.8%	24.0%
Egegik	17.4%	8.7%	29.0%
Naknek	10.4%	5.5%	16.2%
Alagnak	8.7%	3.0%	15.1%
Kvichak	17.1%	10.9%	23.9%
Nushagak	1.1%	0.0%	4.9%
Wood	18.8%	10.8%	26.3%
Igushik	3.4%	0.0%	11.1%
Togiak	0.5%	0.0%	2.2%
Kuskokwim	2.4%	0.0%	6.3%

Scott, Jordan, and Michael

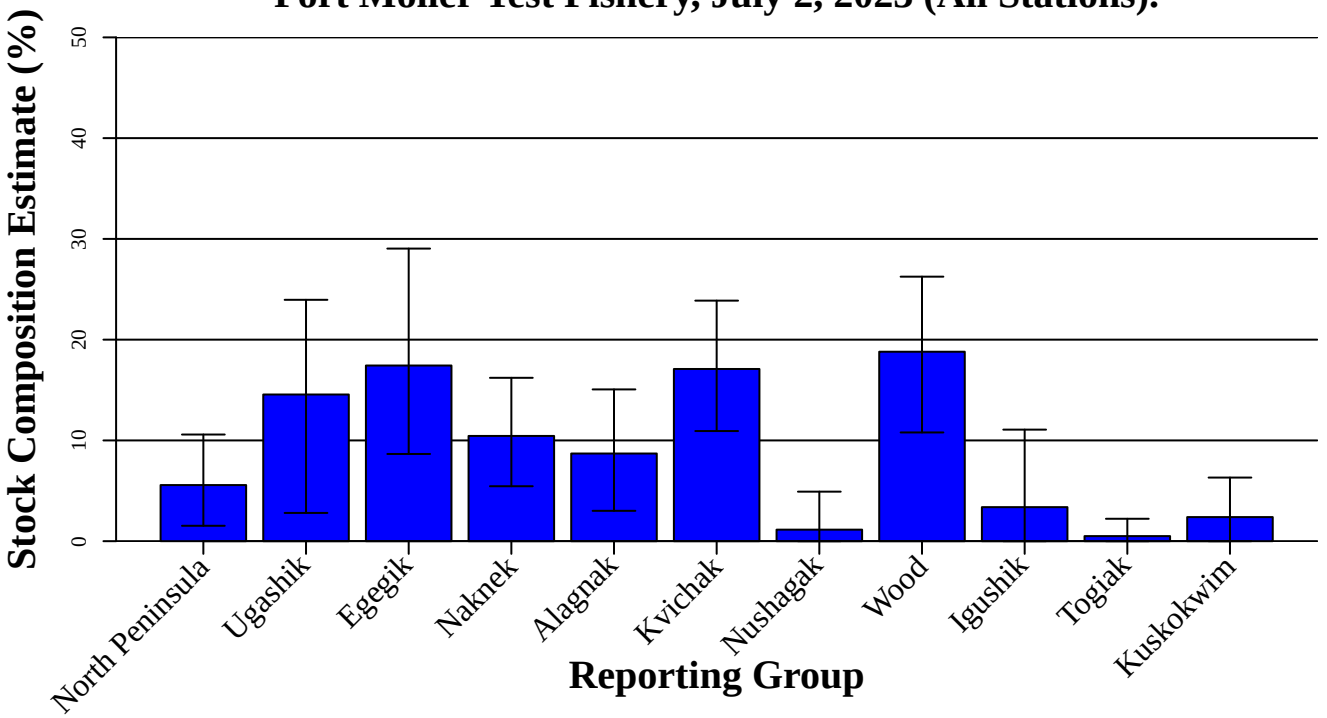
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
July 2, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for July 2, 2023. A total of 284 fish were sampled and 190 were analyzed (188 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	5.6%	1.5%	10.6%
Ugashik	14.6%	2.8%	24.0%
Egegik	17.4%	8.7%	29.0%
Naknek	10.4%	5.5%	16.2%
Alagnak	8.7%	3.0%	15.1%
Kvichak	17.1%	10.9%	23.9%
Nushagak	1.1%	0.0%	4.9%
Wood	18.8%	10.8%	26.3%
Igushik	3.4%	0.0%	11.1%
Togiak	0.5%	0.0%	2.2%
Kuskokwim	2.4%	0.0%	6.3%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, July 2, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: July 3, 2023
10:00 PM

Scott Raborn

From: Scott Raborn
Sent: Thursday, July 6, 2023 8:57 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #10—samples from July , 2023
Attachments: PM genetics inseason 7.3-5.2023.pdf; CE_ByYearDayDistrict.pdf

Everyone,

Attached is the 10th stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery. Also attached is a figure showing these results weighted by the magnitude of the indices they represent along with catch plus escapement (C+E) for 2023 (Figure 1) and C+E by district and date for 2011-2022 (Figure 2).

Stock Composition (Stations 2-22 from July 3-5):

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	0.9%	0.0%	4.3%
Ugashik	6.9%	0.0%	15.6%
Egegik	25.7%	16.4%	36.7%
Naknek	13.9%	7.8%	21.2%
Alagnak	2.4%	0.0%	9.2%
Kvichak	18.1%	11.0%	25.7%
Nushagak	15.8%	8.1%	23.6%
Wood	13.0%	6.7%	19.9%
Igushik	2.9%	0.0%	10.4%
Togiak	0.1%	0.0%	0.6%
Kuskokwim	0.2%	0.0%	1.3%

Scott, Jordan, and Michael

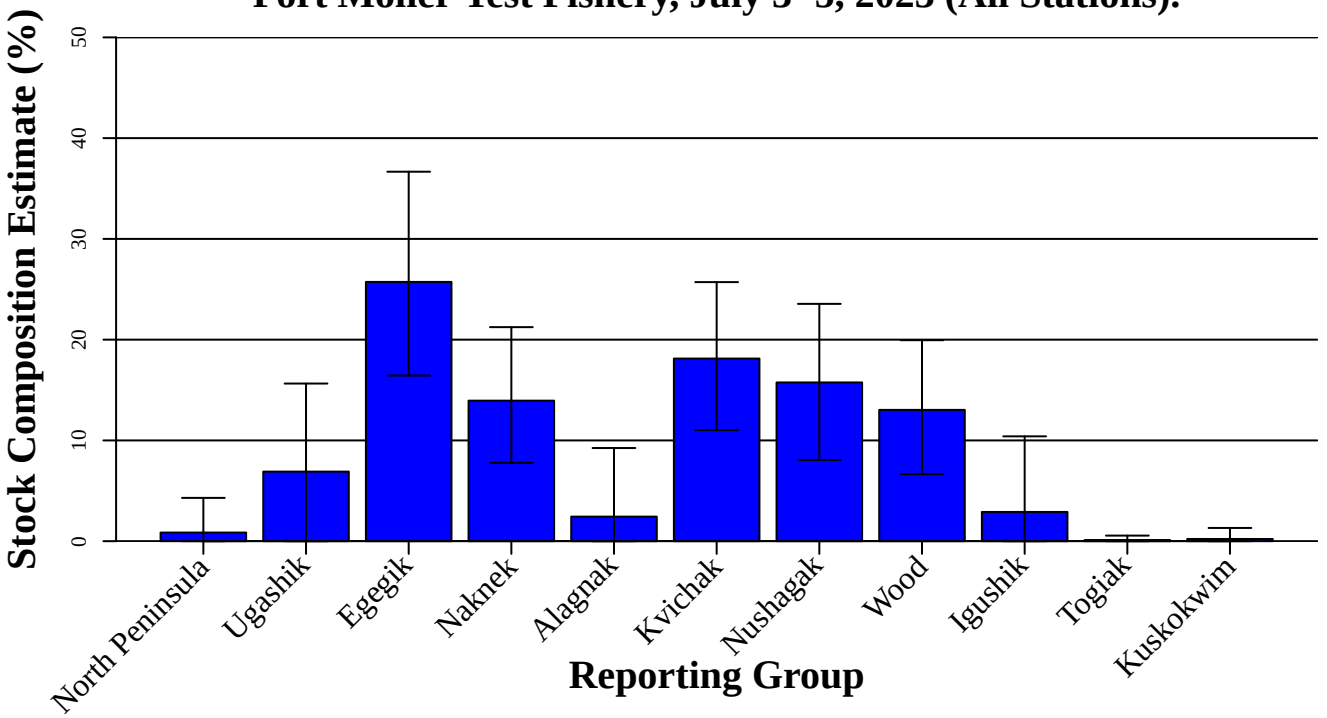
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
July 3−5, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for July 3−5, 2023. A total of 593 fish were sampled and 190 were analyzed (190 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.9%	0.0%	4.3%
Ugashik	6.9%	0.0%	15.6%
Egegik	25.7%	16.4%	36.7%
Naknek	13.9%	7.8%	21.2%
Alagnak	2.4%	0.0%	9.2%
Kvichak	18.1%	11.0%	25.7%
Nushagak	15.8%	8.1%	23.6%
Wood	13.0%	6.7%	19.9%
Igushik	2.9%	0.0%	10.4%
Togiak	0.1%	0.0%	0.6%
Kuskokwim	0.2%	0.0%	1.3%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, July 3−5, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: July 6, 2023
8:00 PM

Scott Raborn

From: Scott Raborn
Sent: Sunday, July 9, 2023 2:42 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #11—samples from July 6-7, 2023
Attachments: PM genetics inseason 7.6-7.2023.pdf; CE_ByYearDayDistrict.pdf

Everyone,

Attached is the 11th stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery. Also attached is a figure showing these results weighted by the magnitude of the indices they represent along with catch plus escapement (C+E) for 2023 (Figure 1) and C+E by district and date for 2011-2022 (Figure 2).

Stock Composition (Stations 2-22 from July 6-7):

	Stock Composition	90% Confidence Intervals	
Reporting Group	Estimate	Lower	Upper
North Peninsula	0.6%	0.0%	3.0%
Ugashik	0.6%	0.0%	4.3%
Egegik	33.4%	24.7%	41.9%
Naknek	12.0%	6.2%	18.3%
Alagnak	5.1%	0.0%	11.1%
Kvichak	18.9%	11.6%	26.6%
Nushagak	15.9%	8.9%	23.2%
Wood	12.0%	6.8%	17.8%
Igushik	0.6%	0.0%	4.9%
Togiak	0.1%	0.0%	0.9%
Kuskokwim	0.6%	0.0%	3.2%

Scott, Jordan, and Michael

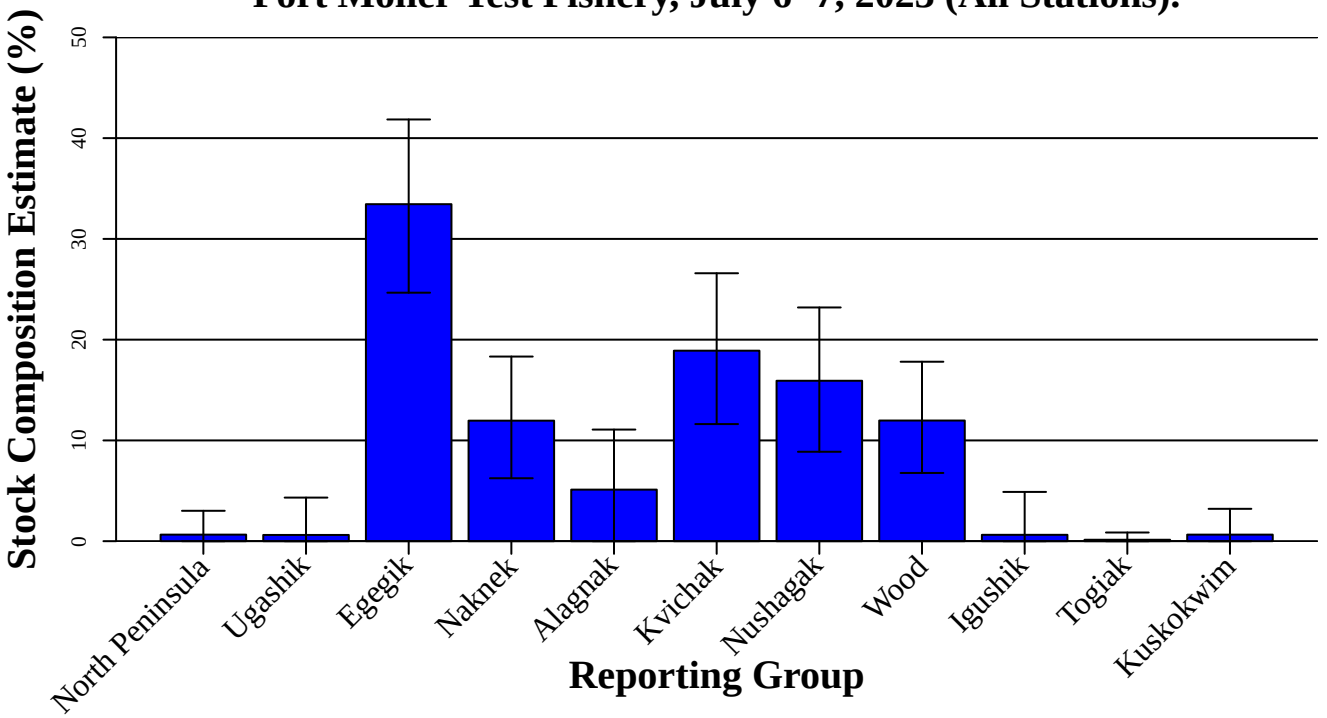
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
July 6−7, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for July 6−7, 2023. A total of 528 fish were sampled and 190 were analyzed (190 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	0.6%	0.0%	3.0%
Ugashik	0.6%	0.0%	4.3%
Egegik	33.4%	24.7%	41.9%
Naknek	12.0%	6.2%	18.3%
Alagnak	5.1%	0.0%	11.1%
Kvichak	18.9%	11.6%	26.6%
Nushagak	15.9%	8.9%	23.2%
Wood	12.0%	6.8%	17.8%
Igushik	0.6%	0.0%	4.9%
Togiak	0.1%	0.0%	0.9%
Kuskokwim	0.6%	0.0%	3.2%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, July 6−7, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: July 9, 2023
2:00 PM

Scott Raborn

From: Scott Raborn
Sent: Wednesday, July 12, 2023 7:01 PM
To: Jordan Head
Cc: Michael Link
Subject: PMTF Stock Comp. Estimate #12—samples from July 10-11, 2023
Attachments: PM genetics inseason 7.10-11.2023.pdf

Everyone,

Attached is the 12th stock composition estimate from ADF&G and the BBSRI At-Sea Genetics Program for the 2023 Port Moller Test Fishery.

Stock Composition (Stations 2-24 from July 10-11):

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	2.6%	0.0%	8.8%
Ugashik	1.7%	0.0%	9.2%
Egegik	29.4%	18.7%	38.4%
Naknek	14.0%	8.0%	20.6%
Alagnak	8.3%	0.0%	17.7%
Kvichak	24.3%	16.4%	32.8%
Nushagak	4.5%	0.0%	12.3%
Wood	2.0%	0.0%	6.4%
Igushik	10.4%	4.9%	16.5%
Togiak	1.0%	0.0%	3.6%
Kuskokwim	1.7%	0.0%	6.2%

Scott, Jordan, and Michael

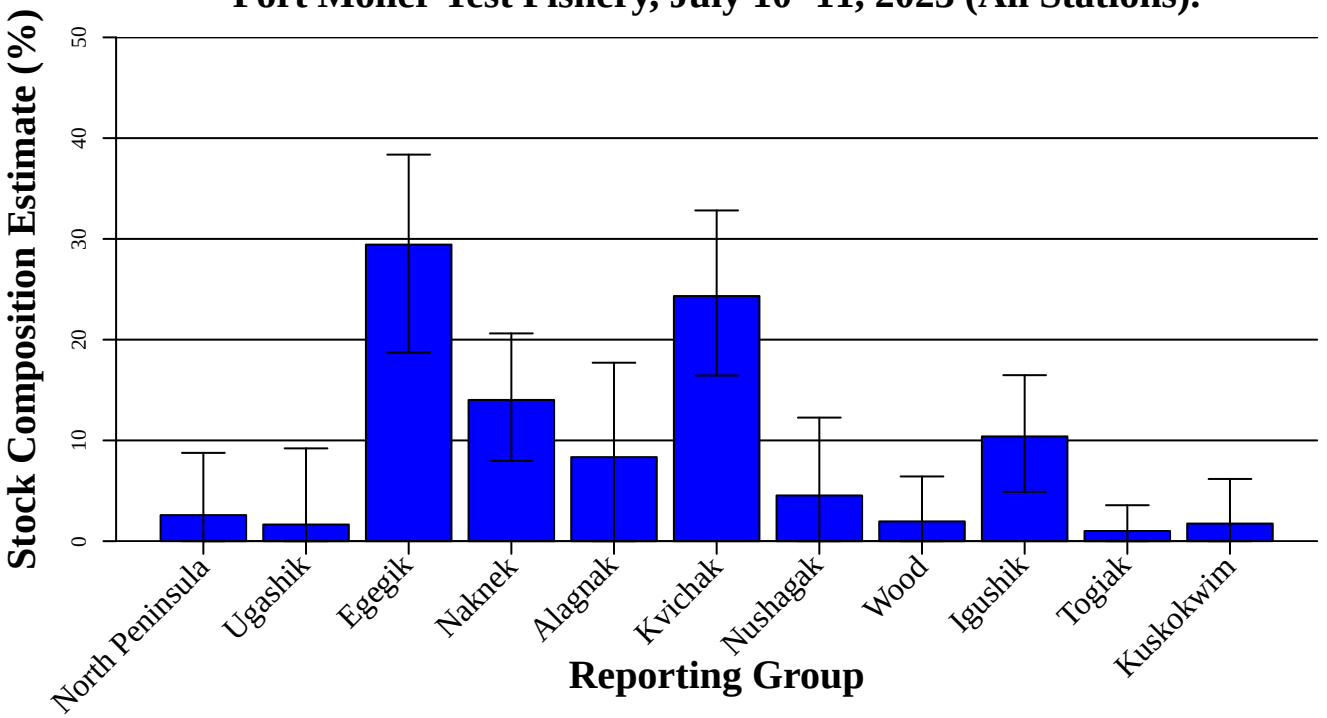
Bristol Bay Sockeye Salmon Fishery

Port Moller Sockeye Salmon Stock Composition Summary
July 10−11, 2023 − All Stations

Genetic stock composition estimates for sockeye salmon from the Port Moller Test Fishery for July 10−11, 2023. A total of 202 fish were sampled and 190 were analyzed (188 had adequate data to include in the analysis).

Reporting Group	Stock Composition Estimate	90% Confidence Intervals Lower	Upper
North Peninsula	2.6%	0.0%	8.8%
Ugashik	1.7%	0.0%	9.2%
Egegik	29.4%	18.7%	38.4%
Naknek	14.0%	8.0%	20.6%
Alagnak	8.3%	0.0%	17.7%
Kvichak	24.3%	16.4%	32.8%
Nushagak	4.5%	0.0%	12.3%
Wood	2.0%	0.0%	6.4%
Igushik	10.4%	4.9%	16.5%
Togiak	1.0%	0.0%	3.6%
Kuskokwim	1.7%	0.0%	6.2%

Genetic Stock Composition Estimates for Sockeye Salmon Captured in the Port Moller Test Fishery, July 10−11, 2023 (All Stations).



The genetic analysis was completed by the Alaska Department of Fish and Game, Division of Commercial Fisheries, Gene Conservation Laboratory.

Reported as of: July 12, 2023
3:00 PM

Appendix C

ADF&G inseason age composition estimates for the Port Moller Test Fishery, inshore districts, and escapement projects, published July 18, 2023.

Year 2023

Management Area Bristol Bay

Species Name Sockeye

Bristol Bay Salmon Fishery

Age Composition Summary - Sockeye Salmon

Date run: 7/18/2023

						Age						
		Period Start	Period End	Samples	Index	11	21	12	22	13	23	14
Egegik District	*Egegik District Harvest*	6/21/2023	6/22/2023	378	480,701			3.70%	5.56%	52.12%	38.10%	0.26%
		6/23/2023	6/24/2023	164	139,580			3.05%	9.15%	45.73%	39.63%	2.44%
		6/26/2023	6/27/2023	410	149,267			3.41%	7.07%	50.49%	39.02%	
		6/29/2023	6/30/2023	428	743,902			1.40%	5.61%	48.60%	44.16%	
		7/1/2023	7/1/2023	215	1,252,005		0.47%	0.93%	4.19%	46.98%	46.98%	0.47%
		7/2/2023	7/3/2023	428	1,609,180			1.17%	5.37%	51.64%	41.82%	
		7/4/2023	7/4/2023	211	479,203			2.37%	5.21%	54.50%	37.91%	
		7/6/2023	7/7/2023	369	1,246,112			3.79%	6.23%	50.14%	39.57%	0.27%
		7/8/2023	7/9/2023	391	316,388			2.81%	3.84%	49.10%	43.73%	0.51%
		7/10/2023	7/11/2023	432	472,000			1.85%	4.86%	52.31%	40.74%	0.23%
		7/12/2023	7/13/2023	434	901,265			2.53%	6.68%	44.93%	45.62%	0.23%
		7/14/2023	7/15/2023	417	1,040,933			2.16%	10.79%	46.52%	40.53%	
		7/16/2023	7/16/2023	221	431,844		0.45%	2.71%	11.31%	48.42%	37.10%	
	Egegik District Harvest Total						*0.04%*	*2.45%*	*6.45%*	*49.42%*	*41.35%*	*0.24%*
	Egegik River Escapement	6/29/2023	6/29/2023	103	13,998	7.77%	9.71%		6.80%	37.86%	37.86%	
		7/1/2023	7/2/2023	308	346,392	5.52%	6.17%	3.25%	12.01%	33.77%	38.96%	0.32%
		7/3/2023	7/4/2023	229	188,880	8.73%	12.23%	6.11%	13.10%	28.82%	30.57%	0.44%
		7/7/2023	7/7/2023	86	55,014	6.98%	15.12%	3.49%	10.47%	27.91%	33.72%	2.33%
	Egegik River Escapement Total					*7.02%*	*9.64%*	*3.72%*	*11.43%*	*32.09%*	*35.54%*	*0.55%*
Naknek-Kvichak District	*Alagnak River Escapement*	7/6/2023	7/6/2023	44	113,250			20.45%		45.45%	34.09%	
		7/8/2023	7/9/2023	187	145,548	0.53%		17.65%	3.74%	30.48%	47.59%	
	Alagnak River Escapement Total					*0.43%*		*18.18%*	*3.03%*	*33.33%*	*45.02%*	
	Kvichak River Escapement	7/6/2023	7/6/2023	81	317,388			13.58%	8.64%	59.26%	18.52%	
	Kvichak River Escapement Total							*13.58%*	*8.64%*	*59.26%*	*18.52%*	
	Kvichak Section Harvest - Set	6/29/2023	6/29/2023	171	7,574			12.28%	6.43%	63.16%	18.13%	
		7/4/2023	7/4/2023	204	112,023			11.76%	8.33%	51.47%	27.94%	0.49%
		7/7/2023	7/8/2023	338	66,091			12.13%	3.25%	59.76%	24.56%	0.30%
		7/10/2023	7/10/2023	152	142,317			11.18%	1.97%	73.03%	13.82%	
		7/12/2023	7/12/2023	214	23,709			9.35%	3.74%	66.82%	20.09%	
		7/16/2023	7/16/2023	208	43,439			19.23%	5.29%	48.56%	26.92%	
	Kvichak Section Harvest - Set Total							*12.67%*	*4.74%*	*59.83%*	*22.61%*	*0.16%*
	Naknek River Escapement	6/29/2023	6/29/2023	123	16,656	1.63%		21.95%	4.88%	58.54%	12.20%	0.81%
		7/3/2023	7/4/2023	173	274,770	0.58%		24.86%	7.51%	50.87%	13.87%	2.31%
		7/6/2023	7/6/2023	45	85,086	2.22%		31.11%		62.22%	4.44%	
		7/11/2023	7/11/2023	168	110,640	1.79%		20.24%	1.79%	67.86%	7.74%	0.60%
		7/14/2023	7/14/2023	111	85,206	10.81%	0.90%	36.94%	7.21%	39.64%	3.60%	0.90%
	Naknek River Escapement Total					*3.06%*	*0.16%*	*25.65%*	*4.84%*	*55.81%*	*9.35%*	*1.13%*
	Naknek Section Harvest - Set	6/29/2023	6/29/2023	184	24,291			7.07%	3.26%	70.65%	16.85%	1.09%
		7/3/2023	7/3/2023	211	146,712			30.81%	4.74%	54.03%	9.95%	0.47%
		7/6/2023	7/6/2023	113	71,827			7.08%	5.31%	76.11%	10.62%	0.88%
		7/10/2023	7/10/2023	193	181,991			3.11%	1.55%	81.87%	12.44%	1.04%
		7/13/2023	7/13/2023	178	21,656			12.92%	3.37%	69.66%	11.24%	2.81%

						Age						
		Period Start	Period End	Samples	Index	11	21	12	22	13	23	14
Naknek-Kvichak District	*Naknek Section Harvest - Set*	7/14/2023	7/14/2023	216	93,881			15.74%	3.24%	68.06%	12.50%	0.46%
	Naknek Section Harvest - Set Total							*13.61%*	*3.47%*	*69.32%*	*12.33%*	*1.10%*
	Naknek-Kvichak District Harvest - Drift	6/24/2023	6/24/2023	161	13,639			8.70%	2.48%	71.43%	15.53%	1.86%
		6/27/2023	6/27/2023	211	130,219			2.84%	2.84%	74.41%	18.96%	0.95%
		6/30/2023	7/1/2023	430	403,587			9.30%	4.88%	68.60%	16.74%	0.47%
		7/2/2023	7/3/2023	421	1,701,084			4.51%	3.33%	69.36%	22.09%	0.71%
		7/4/2023	7/5/2023	384	906,613			7.29%	4.43%	65.36%	22.66%	0.26%
		7/7/2023	7/8/2023	392	158,370			4.08%	4.08%	65.05%	26.02%	0.77%
		7/9/2023	7/10/2023	399	957,506			4.01%	3.26%	65.91%	26.57%	0.25%
		7/11/2023	7/12/2023	379	224,704			7.39%	3.96%	59.89%	28.50%	0.26%
		7/13/2023	7/13/2023	352	1,171,429			3.69%	4.26%	67.90%	22.73%	1.14%
		7/14/2023	7/15/2023	413	2,304,662			9.20%	2.91%	60.05%	27.36%	0.48%
		7/16/2023	7/16/2023	190	385,993			11.05%	3.16%	58.42%	27.37%	
	Naknek-Kvichak District Harvest - Drift Total							*6.40%*	*3.72%*	*65.73%*	*23.53%*	*0.59%*
Nushagak District	*Igushik River Escapement*	6/28/2023	7/1/2023	143	118,332			3.50%	0.70%	90.91%	4.90%	
		7/3/2023	7/5/2023	74	13,020	1.35%		8.11%	8.11%	75.68%	5.41%	1.35%
	Igushik River Escapement Total					*0.46%*		*5.07%*	*3.23%*	*85.71%*	*5.07%*	*0.46%*
	Nushagak District Harvest	6/25/2023	6/26/2023	359	660,997			15.04%	4.18%	71.03%	9.75%	
		6/27/2023	6/28/2023	755	828,340			21.06%	3.58%	61.99%	12.58%	0.79%
		6/29/2023	6/30/2023	318	1,053,274			21.07%	2.20%	65.09%	11.01%	0.63%
		7/1/2023	7/2/2023	755	1,836,653			21.85%	3.31%	63.97%	10.33%	0.53%
		7/3/2023	7/4/2023	418	664,039			21.05%	2.87%	66.03%	9.09%	0.96%
		7/5/2023	7/6/2023	550	1,039,561			21.82%	2.55%	68.91%	6.55%	0.18%
		7/7/2023	7/8/2023	186	79,496			3.76%	5.91%	55.38%	34.95%	
		7/9/2023	7/11/2023	389	968,207			22.11%	2.31%	66.07%	7.71%	1.80%
	Nushagak District Harvest Total							*20.00%*	*3.22%*	*65.09%*	*11.05%*	*0.64%*
	Nushagak River Escapement	6/6/2023	6/12/2023	12	762			16.67%	8.33%	75.00%		
		6/13/2023	6/16/2023	114	5,895	0.88%		15.79%		77.19%	6.14%	
		6/17/2023	6/20/2023	174	15,023	0.57%		13.79%	2.30%	77.01%	4.60%	1.15%
		6/21/2023	6/24/2023	314	239,725	0.32%		7.01%		85.03%	4.78%	2.87%
		6/25/2023	6/26/2023	157	507,467			3.18%	1.27%	91.08%	3.18%	1.27%
		6/27/2023	6/29/2023	274	269,054	0.36%		2.55%	1.82%	85.04%	9.12%	0.73%
		6/30/2023	7/2/2023	272	87,377	0.74%		7.35%	1.10%	83.46%	4.41%	2.94%
		7/3/2023	7/4/2023	278	106,577	0.72%	0.36%	7.91%	1.08%	83.81%	5.04%	1.08%
		7/5/2023	7/6/2023	228	160,054	0.44%		4.82%	0.44%	88.16%	2.63%	3.07%
		7/7/2023	7/8/2023	268	61,271	1.87%		4.48%	0.37%	84.70%	4.48%	4.10%
		7/9/2023	7/9/2023	133	14,193	0.75%		3.76%		91.73%	3.01%	0.75%
	Nushagak River Escapement Total					*0.67%*	*0.04%*	*6.65%*	*0.90%*	*84.71%*	*4.86%*	*2.02%*
	Nushagak Section Harvest - Set	6/25/2023	6/25/2023	198	97,745			11.11%	2.53%	75.25%	9.60%	1.52%
		6/27/2023	6/27/2023	186	130,405			18.28%	2.69%	68.82%	9.68%	0.54%
		6/30/2023	6/30/2023	364	40,679	0.27%		15.93%	2.47%	72.80%	7.42%	1.10%
		7/2/2023	7/2/2023	212	61,731			29.25%	6.60%	55.19%	8.49%	0.47%
		7/5/2023	7/7/2023	640	122,694	0.31%		30.16%	3.44%	57.81%	7.81%	0.47%
		7/9/2023	7/11/2023	385	391,542			29.87%	1.30%	60.26%	8.31%	0.26%
	Nushagak Section Harvest - Set Total					*0.15%*		*24.38%*	*3.02%*	*63.53%*	*8.26%*	*0.65%*
	Wood River Escapement	6/25/2023	6/25/2023	11	343,806			36.36%	9.09%	45.45%	9.09%	
		6/26/2023	6/26/2023	53	430,056			45.28%	9.43%	45.28%		
		6/27/2023	6/27/2023	102	325,302	2.94%		27.45%	2.94%	53.92%	12.75%	
		6/29/2023	6/29/2023	5	59,676				20.00%	80.00%		
		7/1/2023	7/1/2023	41	39,378	4.88%		41.46%	7.32%	41.46%	4.88%	
		7/3/2023	7/4/2023	15	126,696	6.67%		60.00%		33.33%		
		7/6/2023	7/7/2023	85	115,224	2.35%		40.00%	2.35%	43.53%	11.76%	
	Wood River Escapement Total					*2.56%*		*37.18%*	*4.81%*	*47.12%*	*8.33%*	

						Age						
		Period Start	Period End	Samples	Index	11	21	12	22	13	23	14
Nushagak District	*Wood River SHA Harvest*	7/9/2023	7/9/2023	207	6,657			30.43%	4.83%	50.72%	13.53%	0.48%
	Wood River SHA Harvest Total							*30.43%*	*4.83%*	*50.72%*	*13.53%*	*0.48%*
Port Moller	*Port Moller Test Fishery*	6/12/2023	6/12/2023	15	5			6.67%	6.67%	80.00%	6.67%	
		6/13/2023	6/13/2023	29	6				10.34%	75.86%	13.79%	
		6/14/2023	6/14/2023	81	15			4.94%	2.47%	77.78%	14.81%	
		6/15/2023	6/15/2023	52	12			7.69%	5.77%	71.15%	13.46%	
		6/16/2023	6/16/2023	64	23			17.19%	4.69%	56.25%	20.31%	
		6/17/2023	6/17/2023	69	13			5.80%	5.80%	73.91%	13.04%	1.45%
		6/18/2023	6/18/2023	160	27			9.38%	4.38%	63.75%	20.00%	2.50%
		6/19/2023	6/19/2023	389	97			9.51%	4.37%	65.04%	20.57%	0.51%
		6/20/2023	6/20/2023	98	21			8.16%	10.20%	51.02%	27.55%	3.06%
		6/21/2023	6/21/2023	169	40			8.28%	8.28%	55.03%	27.22%	1.18%
		6/22/2023	6/22/2023	75	15			9.33%	6.67%	49.33%	32.00%	2.67%
		6/23/2023	6/23/2023	263	56			10.27%	4.94%	60.46%	22.43%	1.90%
		6/24/2023	6/24/2023	287	65			8.36%	4.18%	53.31%	32.06%	1.05%
		6/25/2023	6/25/2023	258	49			11.24%	7.36%	51.94%	28.29%	1.16%
		6/26/2023	6/26/2023	274	51			12.41%	5.11%	56.20%	24.45%	1.82%
		6/27/2023	6/27/2023	226	52			7.08%	5.31%	52.65%	33.63%	0.88%
		6/28/2023	6/28/2023	252	83			11.11%	7.54%	52.78%	27.78%	0.40%
		6/29/2023	6/29/2023	369	97			9.76%	5.69%	57.99%	25.20%	1.08%
		6/30/2023	6/30/2023	361	81			14.96%	5.26%	60.11%	18.84%	0.55%
		7/2/2023	7/2/2023	257	63			12.45%	6.23%	48.64%	32.68%	
		7/3/2023	7/3/2023	329	83			12.46%	6.69%	55.32%	24.92%	0.61%
		7/4/2023	7/4/2023	91	39			20.88%	5.49%	47.25%	26.37%	
		7/5/2023	7/5/2023	110	25			11.82%	3.64%	55.45%	27.27%	1.82%
		7/6/2023	7/6/2023	289	61			11.42%	5.54%	57.79%	23.88%	1.04%
		7/7/2023	7/7/2023	175	36			16.57%	4.00%	55.43%	24.00%	
		7/8/2023	7/8/2023	72	27			19.44%		59.72%	20.83%	
		7/9/2023	7/9/2023	69	18			14.49%	5.80%	52.17%	27.54%	
		7/10/2023	7/10/2023	86	21			18.60%	8.14%	44.19%	27.91%	
		7/11/2023	7/11/2023	87	18			16.09%	8.05%	39.08%	34.48%	1.15%
		7/12/2023	7/12/2023	43	9			25.58%	13.95%	44.19%	11.63%	4.65%
		7/13/2023	7/13/2023	87	19			13.79%	3.45%	59.77%	21.84%	1.15%
	Port Moller Test Fishery Total							*11.51%*	*5.69%*	*56.61%*	*24.99%*	*0.96%*
Ugashik District	*Ugashik District Harvest*	6/30/2023	6/30/2023	196	29,848			4.59%	12.76%	55.61%	25.51%	1.53%
		7/5/2023	7/5/2023	200	98,359			3.00%	7.50%	56.00%	32.50%	1.00%
		7/7/2023	7/9/2023	563	461,773			2.66%	5.86%	56.13%	34.64%	0.71%
		7/13/2023	7/13/2023	193	206,845			1.55%	7.25%	49.22%	39.38%	2.07%
		7/15/2023	7/15/2023	202	242,941			4.46%	14.85%	49.50%	30.69%	0.50%
	Ugashik District Harvest Total							*3.10%*	*8.64%*	*54.06%*	*33.09%*	*1.03%*
Sockeye Salmon Total						**0.36%**	**0.27%**	**11.30%**	**4.73%**	**60.35%**	**22.16%**	**0.75%**

Rows 1 - 136 (All Rows)

Age Comp Forecast

Sockeye 2023

	Forecast Percent			
Sampling Group Name	12	22	13	23
Alagnak River Escapement	38.8%	4.1%	52.4%	4.8%
Egegik District Harvest	10.2%	21.2%	45.8%	22.8%
Egegik River Escapement	10.2%	21.2%	45.8%	22.8%
Igushik River Escapement	36.2%	0.6%	62.7%	0.6%
Kvichak River Escapement	34.0%	14.7%	46.2%	5.0%
Kvichak Section Harvest - Set	34.0%	14.7%	46.2%	5.0%
Naknek River Escapement	38.9%	8.4%	43.8%	8.9%
Naknek Section Harvest - Set	38.9%	8.4%	43.8%	8.9%
Naknek-Kvichak District Harvest - Drift	36.8%	10.1%	46.8%	6.3%
Nushagak District Harvest	43.1%	3.4%	47.0%	4.6%
Nushagak River Escapement	24.7%	1.9%	64.5%	4.3%
Nushagak Section Harvest - Set	24.7%	1.9%	64.5%	4.3%
Port Moller Test Fishery	33.1%	10.7%	46.3%	9.3%
Ugashik District Harvest	40.6%	16.1%	37.3%	6.0%

	Forecast Percent			
Sampling Group Name	12	22	13	23
Wood River Escapement	60.5%	5.4%	28.3%	5.7%

Appendix D

The 33 ADF&G daily run summaries for Bristol Bay in 2023.

I

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-20-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	14,124	17,926	0	0	0	17,926
Egegik	0	107,696	13,644	15,066	0	122,762
Naknek-Kvichak	6,822	8,390	0	0	0	8,390
Nushagak	0	0	2,254	28,298	0	28,298
Togiak	0	0	0	0	0	0
Totals:	20,946	134,012	15,898	43,364	0	177,376

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Egegik River	13,644	15,066	0
Wood River	966	6,618	0
Nushagak River	1,288	21,680	0

Sockeye per Drift Delivery for: 06-20-2023

District	Sockeye per Delivery
Ugashik	376
Egegik	0
Naknek-Kvichak	248
Nushagak	0
Togiak	0

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-10 00:00:00.0	3	3
2023-06-11 00:00:00.0	4	7
2023-06-12 00:00:00.0	5	12
2023-06-13 00:00:00.0	6	18
2023-06-14 00:00:00.0	15	33
2023-06-15 00:00:00.0	12	45
2023-06-16 00:00:00.0	14	59
2023-06-17 00:00:00.0	13	72
2023-06-18 00:00:00.0	27	99
2023-06-19 00:00:00.0	98	197
2023-06-20 00:00:00.0	21	218

Registrations as of: June 21 - and - June 23

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Naknek-Kvichak	85	95	73	82	12	13
Ugashik	75	87	55	65	20	22
Togiak	9	9	9	9		
Egegik	322	396	232	290	90	106
Nushagak	23	23	20	20	3	3

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set	Unspecified
Percentage	96.3	0.4	3.3

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set	Unspecified
Percentage	73.8	0	26.2

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Naknek Set	Naknek-Kvichak Drift	Unspecified
Percentage	11.8	84.9	3.3

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-21-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	21,254	39,180	0	0	0	39,180
Egegik	135,187	242,883	29,382	44,448	50,000	337,331
Naknek-Kvichak	2,261	10,651	210	210	0	10,861
Nushagak	0	0	14,749	43,047	0	43,047
Togiak	904	1,671	0	0	0	1,671
Totals:	159,606	294,385	44,341	87,705	50,000	432,090

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Egegik River	29,382	44,448	50,000
Naknek River	210	210	0
Wood River	5,064	11,682	0
Nushagak River	9,685	31,365	0

Sockeye per Drift Delivery for: 06-21-2023

District	Sockeye per Delivery
Ugashik	307
Egegik	425
Naknek-Kvichak	72
Nushagak	0
Togiak	64

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-17 00:00:00.0	13	79
2023-06-18 00:00:00.0	27	106
2023-06-19 00:00:00.0	97	203
2023-06-20 00:00:00.0	21	224
2023-06-21 00:00:00.0	40	264

Registrations as of: June 22, 9:00am - and - June 24, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Nushagak	30	34	26	30	4	4
Egegik	412	450	301	331	111	119
Ugashik	96	86	70	63	26	23

Togiak	9	9	9	9		
Naknek-Kvichak	109	113	94	99	15	14

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	97.3	2.7

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set	Unspecified
Percentage	81.3	11.7	7

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift	Unspecified
Percentage	0.4	20.3	78.3	0.9

326 - Togiak Traditional State Managed Fisheries

Fishery	Kulukak Section Drift	Kulukak Section Set	Togiak Section Drift	Togiak Set
Percentage	17.4	42.1	4.2	36.2

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-22-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	21,612	60,792	0	0	0	60,792
Egegik	345,514	588,397	12,054	56,502	25,000	669,899
Naknek-Kvichak	1,745	12,396	78	288	0	12,684
Nushagak	0	0	186,963	230,010	0	230,010
Togiak	340	2,011	0	0	0	2,011
Totals:	369,211	663,596	199,095	286,800	25,000	975,396

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Egegik River	12,054	56,502	25,000
Naknek River	78	288	0
Wood River	91,824	103,506	0
Nushagak River	95,139	126,504	0

Sockeye per Drift Delivery for: 06-22-2023

District	Sockeye per Delivery
Ugashik	337
Egegik	946
Naknek-Kvichak	31
Nushagak	0
Togiak	36

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-18 00:00:00.0	27	105
2023-06-19 00:00:00.0	97	202
2023-06-20 00:00:00.0	21	223
2023-06-21 00:00:00.0	40	263
2023-06-22 00:00:00.0	15	278

Registrations as of: June 23, 9:00am - and - June 25, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Nushagak	65	205	57	153	8	52
Naknek-Kvichak	113	115	99	101	14	14
Togiak	11	11	11	11		

Ugashik	45	47	35	36	10	11
Egegik	467	476	352	360	115	116

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	97.6	2.4

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	88.9	11.1

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	2	21.3	76.7

326 - Togiak Traditional State Managed Fisheries

Fishery	Kulukak Section Drift	Kulukak Section Set	Togiak Section Drift	Togiak Set
Percentage	14.6	35.3	5.4	44.7

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-23-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	2,796	63,518	0	0	0	63,518
Egegik	139,580	727,977	6,924	63,426	20,000	811,403
Naknek-Kvichak	90	12,486	72	360	0	12,846
Nushagak	0	0	160,678	390,688	0	390,688
Togiak	231	2,242	0	0	0	2,242
Totals:	142,697	806,223	167,674	454,474	20,000	1,280,697

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Egegik River	6,924	63,426	20,000
Naknek River	72	360	0
Wood River	88,602	192,108	0
Nushagak River	72,076	198,580	0

Sockeye per Drift Delivery for: 06-23-2023

District	Sockeye per Delivery
Ugashik	127
Egegik	395
Naknek-Kvichak	0
Nushagak	0
Togiak	28

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-19 00:00:00.0	97	202
2023-06-20 00:00:00.0	21	223
2023-06-21 00:00:00.0	40	263
2023-06-22 00:00:00.0	15	278
2023-06-23 00:00:00.0	56	334

Registrations as of: June 24, 9:00am - and - June 26, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Nushagak	170	346	131	256	39	90
Naknek-Kvichak	128	133	115	119	13	14
Togiak	14	14	14	14		

Ugashik	45	42	35	34	10	8
Egegik	431	439	329	335	102	104

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	97.7	2.3

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	90	10

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	2.2	21.7	76.1

326 - Togiak Traditional State Managed Fisheries

Fishery	Kulukak Section Drift	Kulukak Section Set	Matogak Section Drift	Matogak Section Set	Togiak Section Drift	Togiak Set
Percentage	12.3	29.6	3.9	6.6	4.6	43

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-24-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	63,518	0	0	0	63,518
Egegik	0	727,977	9,126	72,552	15,000	815,529
Naknek-Kvichak	13,821	26,307	132	492	0	26,799
Nushagak	0	0	150,329	541,017	0	541,017
Togiak	0	2,242	0	0	0	2,242
Totals:	13,821	820,044	159,587	614,061	15,000	1,449,105

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Egegik River	9,126	72,552	15,000
Kvichak River	84	84	0
Naknek River	48	408	0
Igushik River	48	48	0
Wood River	87,456	279,564	0
Nushagak River	62,825	261,405	0

Sockeye per Drift Delivery for: 06-24-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	0
Naknek-Kvichak	273
Nushagak	0
Togiak	0

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-20 00:00:00.0	21	223
2023-06-21 00:00:00.0	40	263
2023-06-22 00:00:00.0	15	278
2023-06-23 00:00:00.0	56	334
2023-06-24 00:00:00.0	65	399

Registrations as of: June 25, 9:00am - and - June 27, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Egegik	413	418	317	322	96	96

Ugashik	46	48	37	38	9	10
Togiak	14	14	14	14		
Nushagak	305	514	227	371	78	143
Naknek-Kvichak	140	146	125	131	15	15

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	97.7	2.3

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	90	10

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	1.3	10.8	87.9

326 - Togiak Traditional State Managed Fisheries

Fishery	Kulukak Section Drift	Kulukak Section Set	Matogak Section Drift	Matogak Section Set	Togiak Section Drift	Togiak Set
Percentage	12.3	29.6	3.9	6.6	4.6	43

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-25-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	63,518	0	0	0	63,518
Egegik	2,846	730,823	1,788	74,340	5,000	810,163
Naknek-Kvichak	0	26,307	96	588	0	26,895
Nushagak	349,372	373,915	607,641	1,148,658	0	1,522,573
Togiak	0	2,242	0	0	0	2,242
Totals:	352,218	1,196,805	609,525	1,223,586	5,000	2,425,391

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Egegik River	1,788	74,340	5,000
Kvichak River	18	102	0
Naknek River	78	486	0
Igushik River	7,542	7,590	0
Wood River	343,806	623,370	0
Nushagak River	256,293	517,698	0

Sockeye per Drift Delivery for: 06-25-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	0
Naknek-Kvichak	0
Nushagak	904
Togiak	0

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-21 00:00:00.0	40	263
2023-06-22 00:00:00.0	15	278
2023-06-23 00:00:00.0	56	334
2023-06-24 00:00:00.0	65	399
2023-06-25 00:00:00.0	49	448

Registrations as of: June 26, 9:00am - and - June 28, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Ugashik	48	50	38	40	10	10

Togiak	14	14	14	14		
Egegik	451	452	345	345	106	107
Nushagak	703	740	500	522	203	218
Naknek-Kvichak	147	163	132	144	15	19

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	97.7	2.3

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	89.7	10.3

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	1.3	10.8	87.9

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	10.1	64.1	25.8

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-26-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	63,518	0	0	0	63,518
Egegik	58,238	789,061	1,932	76,272	2,500	867,833
Naknek-Kvichak	0	26,307	33,522	34,110	30,000	90,417
Nushagak	534,284	921,107	681,914	1,830,572	0	2,751,679
Togiak	1,108	3,350	0	0	0	3,350
Totals:	593,630	1,803,343	717,368	1,940,954	32,500	3,776,797

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Egegik River	1,932	76,272	2,500
Kvichak River	30	132	30,000
Naknek River	33,492	33,978	0
Igushik River	684	8,274	0
Wood River	430,056	1,053,426	0
Nushagak River	251,174	768,872	0

Sockeye per Drift Delivery for: 06-26-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	210
Naknek-Kvichak	0
Nushagak	718
Togiak	76

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-22 00:00:00.0	15	279
2023-06-23 00:00:00.0	56	335
2023-06-24 00:00:00.0	65	400
2023-06-25 00:00:00.0	49	449
2023-06-26 00:00:00.0	51	500

Registrations as of: June 27, 9:00am - and - June 29, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Togiak	17	17	17	17		

Nushagak	758	760	538	539	220	221
Ugashik	60	61	47	48	13	13
Egegik	440	444	336	337	104	107
Naknek-Kvichak	238	255	201	215	37	40
Total	**1,513**	**1,537**	**1,139**	**1,156**	**374**	**381**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	97.7	2.3

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	90.2	9.8

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	1.3	10.8	87.9

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	6.1	71.7	22.2

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-27-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	15,202	78,720	0	0	0	78,720
Egegik	91,029	880,090	1,074	77,346	5,000	962,436
Naknek-Kvichak	173,622	199,929	42,768	76,878	35,000	311,807
Nushagak	675,632	1,606,221	462,659	2,293,231	0	3,899,452
Togiak	2,829	6,179	0	0	0	6,179
Totals:	958,314	2,771,139	506,501	2,447,455	40,000	5,258,594

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Egegik River	1,074	77,346	5,000
Kvichak River	36	168	35,000
Naknek River	42,732	76,710	0
Igushik River	19,014	27,288	0
Wood River	325,302	1,378,728	0
Nushagak River	118,343	887,215	0

Sockeye per Drift Delivery for: 06-27-2023

District	Sockeye per Delivery
Ugashik	339
Egegik	203
Naknek-Kvichak	736
Nushagak	603
Togiak	50

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-23 00:00:00.0	56	335
2023-06-24 00:00:00.0	65	400
2023-06-25 00:00:00.0	49	449
2023-06-26 00:00:00.0	51	500
2023-06-27 00:00:00.0	52	552

Registrations as of: June 28, 9:00am - and - June 30, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Ugashik	60	63	47	49	13	14

Naknek-Kvichak	250	317	212	263	38	54
Nushagak	750	753	537	542	213	211
Egegik	429	426	325	323	104	103
Togiak	18	18	18	18		
Total	**1,507**	**1,577**	**1,139**	**1,195**	**368**	**382**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	96.9	3.1

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	87.4	12.6

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	15.8	7.5	76.7

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	4.4	74.8	20.8

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-28-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	78,720	126	126	0	78,846
Egegik	0	880,090	16,890	94,236	15,000	989,326
Naknek-Kvichak	0	199,929	18,966	95,844	25,000	320,773
Nushagak	604,892	2,228,786	231,186	2,524,417	0	4,753,203
Togiak	1,198	7,377	0	0	0	7,377
Totals:	606,090	3,394,902	267,168	2,714,623	40,000	6,149,525

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	126	126	0
Egegik River	16,890	94,236	15,000
Kvichak River	6,774	6,942	25,000
Naknek River	12,192	88,902	0
Igushik River	42,402	69,690	0
Wood River	106,860	1,485,588	0
Nushagak River	81,924	969,139	0

Sockeye per Drift Delivery for: 06-28-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	0
Naknek-Kvichak	0
Nushagak	925
Togiak	22

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-24 00:00:00.0	65	401
2023-06-25 00:00:00.0	49	450
2023-06-26 00:00:00.0	51	501
2023-06-27 00:00:00.0	52	553
2023-06-28 00:00:00.0	83	636

Registrations as of: June 29, 9:00am - and - July 01, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.

Ugashik	56	60	45	48	11	12
Nushagak	736	740	530	535	206	205
Naknek-Kvichak	306	382	257	309	49	73
Egegik	423	421	320	319	103	102
Togiak	18	18	18	18		
Total	**1,539**	**1,621**	**1,170**	**1,229**	**369**	**392**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	96.9	3.1

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	87.4	12.6

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	15.8	7.5	76.7

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	4.8	74	21.2

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-29-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	78,720	432	558	0	79,278
Egegik	130,223	1,010,313	13,998	108,234	5,000	1,123,547
Naknek-Kvichak	162,417	362,346	44,460	140,304	10,000	512,650
Nushagak	553,575	2,787,477	156,981	2,681,398	0	5,468,875
Togiak	407	7,784	0	0	0	7,784
Totals:	846,622	4,246,640	215,871	2,930,494	15,000	7,192,134

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	432	558	0
Egegik River	13,998	108,234	5,000
Kvichak River	27,804	34,746	10,000
Naknek River	16,656	105,558	0
Igushik River	28,518	98,208	0
Wood River	59,676	1,545,264	0
Nushagak River	68,787	1,037,926	0

Sockeye per Drift Delivery for: 06-29-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	444
Naknek-Kvichak	550
Nushagak	692
Togiak	68

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-25 00:00:00.0	49	450
2023-06-26 00:00:00.0	51	501
2023-06-27 00:00:00.0	52	553
2023-06-28 00:00:00.0	83	636
2023-06-29 00:00:00.0	97	733

Registrations as of: June 30, 9:00am - and - July 02, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.

Togiak	18	18	18	18		
Nushagak	725	726	524	525	201	201
Ugashik	63	65	51	53	12	12
Naknek-Kvichak	346	419	286	338	60	81
Egegik	422	421	318	317	104	104
Total	**1,574**	**1,649**	**1,197**	**1,251**	**377**	**398**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	96.9	3.1

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	87.8	12.2

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	10.8	10.7	78.5

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	4.5	75.6	19.9

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 06-30-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	29,848	108,568	1,206	1,764	1,500	111,832
Egegik	613,679	1,623,992	10,404	118,638	40,000	1,782,630
Naknek-Kvichak	282,050	644,858	19,578	159,882	10,000	814,740
Nushagak	657,679	3,445,156	112,829	2,794,227	0	6,239,383
Togiak	3,759	11,543	0	0	0	11,543
Totals:	1,587,015	5,834,117	144,017	3,074,511	51,500	8,960,128

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	1,206	1,764	1,500
Egegik River	10,404	118,638	40,000
Kvichak River	17,286	52,032	10,000
Naknek River	2,292	107,850	0
Igushik River	27,384	125,592	0
Wood River	51,810	1,597,074	0
Nushagak River	33,635	1,071,561	0

Sockeye per Drift Delivery for: 06-30-2023

District	Sockeye per Delivery
Ugashik	506
Egegik	1,534
Naknek-Kvichak	804
Nushagak	644
Togiak	109

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-26 00:00:00.0	51	499
2023-06-27 00:00:00.0	52	551
2023-06-28 00:00:00.0	83	634
2023-06-29 00:00:00.0	97	731
2023-06-30 00:00:00.0	77	808

Registrations as of: July 01, 9:00am - and - July 03, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.

Naknek-Kvichak	393	431	319	346	74	85
Nushagak	717	720	516	518	201	202
Togiak	18	18	18	18		
Egegik	423	432	319	328	104	104
Ugashik	62	62	50	50	12	12
Total	**1,613**	**1,663**	**1,222**	**1,260**	**391**	**403**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	93.6	6.4

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	86	14

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	7.4	13.2	79.4

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	4.1	78.4	17.5

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-01-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	108,568	504	2,268	1,500	112,336
Egegik	1,252,005	2,875,997	132,996	251,634	225,000	3,352,631
Naknek-Kvichak	184,454	829,312	46,134	206,016	30,000	1,065,328
Nushagak	1,020,980	4,466,593	81,161	2,875,388	0	7,341,981
Togiak	4,688	16,231	0	0	0	16,231
Totals:	2,462,127	8,296,701	260,795	3,335,306	256,500	11,888,507

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	504	2,268	1,500
Egegik River	132,996	251,634	225,000
Kvichak River	14,898	66,930	30,000
Alagnak River	12,660	12,660	0
Naknek River	18,576	126,426	0
Igushik River	20,028	145,620	0
Wood River	39,378	1,636,452	0
Nushagak River	21,755	1,093,316	0

Sockeye per Drift Delivery for: 07-01-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	1,752
Naknek-Kvichak	699
Nushagak	1,080
Togiak	135

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-26 00:00:00.0	51	499
2023-06-27 00:00:00.0	52	551
2023-06-28 00:00:00.0	83	634
2023-06-29 00:00:00.0	97	731
2023-06-30 00:00:00.0	77	808

Registrations as of: July 02, 9:00am - and - July 04, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Nushagak	715	716	514	515	202	202
Egegik	424	440	320	336	104	104
Togiak	21	21	21	21		
Naknek-Kvichak	423	438	341	351	82	87
Ugashik	58	60	47	49	11	11
Total	**1,641**	**1,675**	**1,243**	**1,272**	**399**	**404**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	93.6	6.4

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	81.7	18.3

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	6.1	10.9	83

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	3.5	82.1	14.5

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-02-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	108,568	546	2,814	0	111,382
Egegik	757,415	3,633,412	213,396	465,030	200,000	4,298,442
Naknek-Kvichak	542,695	1,372,007	22,572	228,588	20,000	1,620,595
Nushagak	971,286	5,438,177	106,135	2,981,523	0	8,419,700
Togiak	0	16,155	0	0	0	16,155
Totals:	2,271,396	10,568,319	342,649	3,677,955	220,000	14,466,274

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	546	2,814	0
Egegik River	213,396	465,030	200,000
Kvichak River	11,946	78,876	20,000
Alagnak River	5,280	17,940	0
Naknek River	5,346	131,772	0
Igushik River	16,974	162,594	0
Wood River	57,174	1,693,626	0
Nushagak River	31,987	1,125,303	0

Sockeye per Drift Delivery for: 07-02-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	1,102
Naknek-Kvichak	1,595
Nushagak	1,219
Togiak	0

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-28 00:00:00.0	83	634
2023-06-29 00:00:00.0	97	731
2023-06-30 00:00:00.0	80	811
2023-07-01 00:00:00.0	71	882
2023-07-02 00:00:00.0	63	945

Registrations as of: July 03, 9:00am - and - July 05, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Togiak	21	21	21	21		
Egegik	427	435	324	332	103	103
Nushagak	637	631	470	466	168	166
Naknek-Kvichak	433	520	348	399	85	121
Ugashik	59	63	47	50	12	13
Total	**1,577**	**1,670**	**1,210**	**1,268**	**368**	**403**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	93.6	6.4

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	81.3	18.7

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift	Unspecified
Percentage	4.3	8.9	86.8	0

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	3	83.5	13.5

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-03-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	72,560	181,128	684	3,498	6,000	190,626
Egegik	851,765	4,485,177	137,646	602,676	250,000	5,337,853
Naknek-Kvichak	1,464,016	2,836,023	88,422	317,010	100,000	3,253,033
Nushagak	520,724	5,958,901	113,342	3,094,865	0	9,053,766
Togiak	5,162	21,317	0	0	0	21,317
Totals:	2,914,227	13,482,546	340,094	4,018,049	356,000	17,856,595

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	684	3,498	6,000
Egegik River	137,646	602,676	250,000
Kvichak River	6,972	85,848	100,000
Alagnak River	2,262	20,202	0
Naknek River	79,188	210,960	0
Igushik River	3,420	166,014	0
Wood River	60,420	1,754,046	0
Nushagak River	49,502	1,174,805	0

Sockeye per Drift Delivery for: 07-03-2023

District	Sockeye per Delivery
Ugashik	909
Egegik	1,262
Naknek-Kvichak	1,943
Nushagak	829
Togiak	112

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-29 00:00:00.0	98	733
2023-06-30 00:00:00.0	81	814
2023-07-01 00:00:00.0	81	895
2023-07-02 00:00:00.0	65	960
2023-07-03 00:00:00.0	83	1,043

Registrations as of: July 04, 9:00am - and - July 06, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Egegik	436	437	332	333	104	104
Naknek-Kvichak	437	583	351	439	86	144
Ugashik	61	66	49	52	12	14
Nushagak	575	575	431	431	145	145
Togiak	22	22	22	22		
Total	**1,531**	**1,683**	**1,185**	**1,277**	**347**	**407**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	79.2	20.8

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	82	18

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift	Unspecified
Percentage	6.3	9.4	84.2	0

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	3.2	82.2	14.6

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-04-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	181,128	852	4,350	0	185,478
Egegik	479,203	4,964,380	51,234	653,910	0	5,618,290
Naknek-Kvichak	387,551	3,223,574	201,114	518,124	330,000	4,071,698
Nushagak	525,547	6,484,448	127,845	3,222,710	0	9,707,158
Togiak	5,090	26,407	0	0	0	26,407
Totals:	1,397,391	14,879,937	381,045	4,399,094	330,000	19,609,031

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	852	4,350	0
Egegik River	51,234	653,910	0
Kvichak River	3,186	89,034	330,000
Alagnak River	2,346	22,548	0
Naknek River	195,582	406,542	0
Igushik River	4,494	170,508	0
Wood River	66,276	1,820,322	0
Nushagak River	57,075	1,231,880	0

Sockeye per Drift Delivery for: 07-04-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	772
Naknek-Kvichak	638
Nushagak	589
Togiak	131

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-06-30 00:00:00.0	81	814
2023-07-01 00:00:00.0	76	890
2023-07-02 00:00:00.0	65	955
2023-07-03 00:00:00.0	83	1,038
2023-07-04 00:00:00.0	42	1,080

Registrations as of: July 05, 9:00am - and - July 07, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Egegik	431	431	328	328	103	103
Ugashik	63	76	50	58	13	18
Naknek-Kvichak	520	613	399	460	121	153
Togiak	22	22	22	22		
Nushagak	541	530	409	401	133	130
Total	**1,577**	**1,672**	**1,208**	**1,269**	**370**	**404**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	79.2	20.8

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set	Unspecified
Percentage	81.7	17.9	0.5

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift	Unspecified
Percentage	9	10.3	80.7	0

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	3.1	80.2	16.7

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-05-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	98,359	279,487	102	4,452	8,000	291,939
Egegik	467,089	5,431,469	40,566	694,476	150,000	6,275,945
Naknek-Kvichak	983,621	4,208,369	117,462	635,586	450,000	5,293,955
Nushagak	749,557	7,234,005	179,644	3,402,354	0	10,636,359
Togiak	4,540	30,947	0	0	0	30,947
Totals:	2,303,166	17,184,277	337,774	4,736,868	608,000	22,529,145

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	102	4,452	8,000
Egegik River	40,566	694,476	150,000
Kvichak River	6,912	95,946	450,000
Alagnak River	34,776	57,324	0
Naknek River	75,774	482,316	0
Igushik River	5,106	175,614	0
Wood River	77,880	1,898,202	0
Nushagak River	96,658	1,328,538	0

Sockeye per Drift Delivery for: 07-05-2023

District	Sockeye per Delivery
Ugashik	1,211
Egegik	1,252
Naknek-Kvichak	1,342
Nushagak	1,426
Togiak	110

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-01 00:00:00.0	77	890
2023-07-02 00:00:00.0	64	954
2023-07-03 00:00:00.0	83	1,037
2023-07-04 00:00:00.0	37	1,074
2023-07-05 00:00:00.0	25	1,099

Registrations as of: July 06, 9:00am - and - July 08, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Ugashik	66	97	52	72	14	25
Egegik	427	431	325	329	102	102
Naknek-Kvichak	583	632	439	473	144	159
Nushagak	502	501	381	380	122	122
Togiak	22	22	22	22		
Total	**1,600**	**1,683**	**1,219**	**1,276**	**382**	**408**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set	Unspecified
Percentage	73.4	26.6	0

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	82.8	17.2

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift	Unspecified
Percentage	9.8	11.9	78.3	0

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	2.8	81.2	15.9

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-06-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	279,487	624	5,076	50,000	334,563
Egegik	837,940	6,288,089	17,598	712,074	200,000	7,200,163
Naknek-Kvichak	328,575	4,508,514	515,724	1,151,310	700,000	6,359,824
Nushagak	467,192	7,701,267	150,960	3,553,314	0	11,254,581
Togiak	7,781	39,244	9,360	9,360	0	48,604
Totals:	1,641,488	18,816,601	694,266	5,431,134	950,000	25,197,735

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	624	5,076	50,000
Egegik River	17,598	712,074	200,000
Kvichak River	317,388	413,334	700,000
Alagnak River	113,250	170,574	0
Naknek River	85,086	567,402	0
Igushik River	12,648	188,262	0
Wood River	74,916	1,973,118	0
Nushagak River	63,396	1,391,934	0
Togiak River	9,360	9,360	0

Sockeye per Drift Delivery for: 07-06-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	1,418
Naknek-Kvichak	364
Nushagak	734
Togiak	113

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-02 00:00:00.0	64	954
2023-07-03 00:00:00.0	83	1,037
2023-07-04 00:00:00.0	37	1,074
2023-07-05 00:00:00.0	25	1,099
2023-07-06 00:00:00.0	62	1,161

Registrations as of: July 07, 9:00am - and - July 09, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Naknek-Kvichak	610	658	458	494	152	164
Ugashik	76	114	58	85	18	29
Nushagak	443	446	336	339	108	108
Togiak	23	23	23	23		
Egegik	423	438	321	333	102	105
Total	**1,575**	**1,679**	**1,196**	**1,274**	**380**	**406**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set	Unspecified
Percentage	73.4	26.6	0

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	82	18

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift	Unspecified
Percentage	10.3	12.1	77.7	0

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	2.8	81.1	16.2

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-07-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	179,396	458,883	10,932	16,008	120,000	594,891
Egegik	408,172	6,696,261	55,014	767,088	100,000	7,563,349
Naknek-Kvichak	93,277	4,604,570	610,530	1,761,840	450,000	6,816,410
Nushagak	128,638	7,829,965	93,555	3,646,869	0	11,476,834
Togiak	8,422	47,303	6,906	16,266	0	63,569
Totals:	817,905	19,636,982	776,937	6,208,071	670,000	26,515,053

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	10,932	16,008	120,000
Egegik River	55,014	767,088	100,000
Kvichak River	427,404	840,738	450,000
Alagnak River	97,938	268,512	0
Naknek River	85,188	652,590	0
Igushik River	16,566	204,828	0
Wood River	40,308	2,013,426	0
Nushagak River	36,681	1,428,615	0
Togiak River	6,906	16,266	0

Sockeye per Drift Delivery for: 07-07-2023

District	Sockeye per Delivery
Ugashik	1,938
Egegik	703
Naknek-Kvichak	67
Nushagak	163
Togiak	138

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-03 00:00:00.0	83	1,029
2023-07-04 00:00:00.0	38	1,067
2023-07-05 00:00:00.0	25	1,092
2023-07-06 00:00:00.0	62	1,154
2023-07-07 00:00:00.0	36	1,190

Registrations as of: July 08, 9:00am - and - July 10, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Ugashik	97	157	72	115	25	42
Naknek-Kvichak	614	670	461	507	153	163
Nushagak	402	379	303	282	100	98
Togiak	23	23	23	23		
Egegik	400	436	304	331	96	105
Total	**1,536**	**1,665**	**1,163**	**1,258**	**374**	**408**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	72.6	27.4

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	81.7	18.3

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	11.2	12.1	76.7

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	2.9	80.4	16.7

Alaska Department of Fish and Game

Site Navigation

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-08-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	164,706	623,589	28,614	44,622	80,000	748,211
Egegik	112,515	6,808,776	17,496	784,584	50,000	7,643,360
Naknek-Kvichak	158,404	4,763,016	445,698	2,207,538	450,000	7,420,554
Nushagak	64,384	7,894,349	66,332	3,713,201	0	11,607,550
Togiak	5,529	52,832	6,012	22,278	0	75,110
Totals:	505,538	20,142,562	564,152	6,772,223	580,000	27,494,785

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	28,614	44,622	80,000
Egegik River	17,496	784,584	50,000
Kvichak River	345,702	1,186,440	450,000
Alagnak River	87,474	355,986	0
Naknek River	12,522	665,112	0
Igushik River	13,494	218,322	0
Wood River	28,248	2,041,674	0
Nushagak River	24,590	1,453,205	0
Togiak River	6,012	22,278	0

Sockeye per Drift Delivery for: 07-08-2023

District	Sockeye per Delivery
Ugashik	1,821
Egegik	330
Naknek-Kvichak	507
Nushagak	125
Togiak	207

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-04 00:00:00.0	39	1,071
2023-07-05 00:00:00.0	25	1,096
2023-07-06 00:00:00.0	61	1,157
2023-07-07 00:00:00.0	36	1,193
2023-07-08 00:00:00.0	25	1,218

Registrations as of: July 09, 9:00am - and - July 11, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Naknek-Kvichak	633	685	474	517	159	168
Ugashik	116	234	86	174	30	60
Nushagak	338	334	254	251	85	84
Togiak	23	23	23	23		
Egegik	389	408	297	312	92	96
Total	**1,499**	**1,684**	**1,134**	**1,277**	**366**	**408**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	75	25

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	81.8	18.2

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	11.1	12	76.9

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	2.9	80.1	17

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-09-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	117,631	741,260	20,826	65,448	80,000	886,708
Egegik	203,873	7,012,649	16,266	800,850	25,000	7,838,499
Naknek-Kvichak	571,965	5,334,981	314,052	2,521,590	150,000	8,006,571
Nushagak	485,997	8,380,346	53,925	3,767,126	0	12,147,472
Togiak	0	52,832	4,944	27,222	0	80,054
Totals:	1,379,466	21,522,068	410,013	7,182,236	255,000	28,959,304

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	20,826	65,448	80,000
Egegik River	16,266	800,850	25,000
Kvichak River	252,216	1,438,656	150,000
Alagnak River	58,074	414,060	0
Naknek River	3,762	668,874	0
Igushik River	17,802	236,124	0
Wood River	21,930	2,063,604	0
Nushagak River	14,193	1,467,398	0
Togiak River	4,944	27,222	0

Sockeye per Drift Delivery for: 07-09-2023

District	Sockeye per Delivery
Ugashik	1,035
Egegik	523
Naknek-Kvichak	1,085
Nushagak	1,752
Togiak	0

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-04 00:00:00.0	39	1,071
2023-07-05 00:00:00.0	25	1,096
2023-07-06 00:00:00.0	61	1,157
2023-07-07 00:00:00.0	36	1,193
2023-07-08 00:00:00.0	25	1,218

Registrations as of: July 10, 9:00am - and - July 12, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Naknek-Kvichak	661	689	499	520	162	169
Ugashik	159	240	116	178	43	62
Nushagak	331	335	249	252	83	84
Egegik	397	402	303	307	94	95
Togiak	23	23	23	23		
Total	**1,571**	**1,689**	**1,190**	**1,280**	**382**	**410**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	76	24

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	81.9	18.1

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	10.1	11.6	78.3

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	2.9	80.6	16.5

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-10-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	741,260	28,856	94,304	100,000	935,564
Egegik	241,620	7,254,269	3,714	804,834	10,000	8,069,103
Naknek-Kvichak	766,784	6,102,065	162,030	2,683,620	200,000	8,985,685
Nushagak	800,911	9,181,257	124,182	3,891,308	0	13,072,565
Togiak	10,507	63,339	3,708	30,930	0	94,269
Totals:	1,819,822	23,342,190	322,490	7,504,996	310,000	31,157,186

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	28,856	94,304	100,000
Egegik River	3,714	804,834	10,000
Kvichak River	112,434	1,551,090	200,000
Alagnak River	26,682	440,742	0
Naknek River	22,914	691,788	0
Igushik River	16,920	253,044	0
Wood River	95,766	2,159,370	0
Nushagak River	11,496	1,478,894	0
Togiak River	3,708	30,930	0

Sockeye per Drift Delivery for: 07-10-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	575
Naknek-Kvichak	616
Nushagak	1,083
Togiak	116

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-06 00:00:00.0	61	1,157
2023-07-07 00:00:00.0	36	1,193
2023-07-08 00:00:00.0	25	1,218
2023-07-09 00:00:00.0	18	1,236
2023-07-10 00:00:00.0	21	1,257

Registrations as of: July 11, 9:00am - and - July 13, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Naknek-Kvichak	684	697	516	528	168	169
Nushagak	325	336	243	250	83	87
Egegik	395	398	301	304	94	94
Togiak	23	23	23	23		
Ugashik	229	238	171	178	58	60
Total	**1,656**	**1,692**	**1,254**	**1,283**	**403**	**410**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	76	24

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	81.4	18.6

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	11.1	13.2	75.7

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	3.1	78.4	18.6

Alaska Department of Fish and Game

Site Navigation

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-11-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	741,260	53,718	148,022	150,000	1,039,282
Egegik	230,380	7,484,649	15,612	820,446	0	8,305,095
Naknek-Kvichak	225,720	6,328,573	208,908	2,892,528	500,000	9,721,101
Nushagak	253,918	9,435,175	286,292	4,177,600	0	13,612,775
Togiak	13,524	76,863	2,196	33,126	0	109,989
Totals:	723,542	24,066,520	566,726	8,071,722	650,000	32,788,242

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	53,718	148,022	150,000
Egegik River	15,612	820,446	0
Kvichak River	56,316	1,607,406	500,000
Alagnak River	41,952	482,694	0
Naknek River	110,640	802,428	0
Igushik River	26,412	279,456	0
Wood River	136,914	2,296,284	0
Nushagak River	122,966	1,601,860	0
Togiak River	2,196	33,126	0

Sockeye per Drift Delivery for: 07-11-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	795
Naknek-Kvichak	167
Nushagak	342
Togiak	181

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-07 00:00:00.0	36	1,197
2023-07-08 00:00:00.0	27	1,224
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281

Registrations as of: July 12, 9:00am - and - July 14, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Naknek-Kvichak	690	711	521	540	169	171
Egegik	386	389	294	297	92	92
Togiak	24	24	24	24		
Nushagak	329	316	245	239	85	78
Ugashik	231	233	172	174	59	59
Total	**1,660**	**1,673**	**1,256**	**1,274**	**405**	**400**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	76	24

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	81.2	18.8

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	11.9	13.4	74.6

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	3.1	77.3	19.6

Alaska Department of Fish and Game

Site Navigation

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-12-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	741,260	110,418	258,440	200,000	1,199,700
Egegik	216,610	7,701,259	52,854	873,300	0	8,574,559
Naknek-Kvichak	153,938	6,482,747	543,684	3,436,212	800,000	10,718,959
Nushagak	99,640	9,534,815	179,859	4,357,459	0	13,892,274
Togiak	11,897	88,156	4,818	37,944	0	126,100
Totals:	482,085	24,548,237	891,633	8,963,355	1,000,000	34,511,592

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	110,418	258,440	200,000
Egegik River	52,854	873,300	0
Kvichak River	352,704	1,960,110	800,000
Alagnak River	174,096	656,790	0
Naknek River	16,884	819,312	0
Igushik River	13,908	293,364	0
Wood River	112,578	2,408,862	0
Nushagak River	53,373	1,655,233	0
Togiak River	4,818	37,944	0

Sockeye per Drift Delivery for: 07-12-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	648
Naknek-Kvichak	241
Nushagak	161
Togiak	163

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-08 00:00:00.0	27	1,224
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290

Registrations as of: July 13, 9:00am - and - July 15, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Egegik	389	399	297	304	92	95
Togiak	24	24	24	24		
Nushagak	294	295	226	226	69	70
Ugashik	228	236	170	175	58	61
Naknek-Kvichak	697	728	528	550	169	178
Total	**1,632**	**1,682**	**1,245**	**1,279**	**388**	**404**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	76	24

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	81.3	18.7

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	12	13.2	74.7

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	3.1	76.9	20

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-13-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	206,845	948,105	82,482	340,922	200,000	1,489,027
Egegik	684,655	8,385,914	50,298	923,598	0	9,309,512
Naknek-Kvichak	1,199,612	7,682,359	978,612	4,414,824	400,000	12,497,183
Nushagak	410,200	9,945,067	75,729	4,433,188	0	14,378,255
Togiak	11,923	100,079	7,710	45,654	0	145,733
Totals:	2,513,235	27,061,524	1,194,831	10,158,186	600,000	37,819,710

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	82,482	340,922	200,000
Egegik River	50,298	923,598	0
Kvichak River	812,460	2,772,570	400,000
Alagnak River	156,144	812,934	0
Naknek River	10,008	829,320	0
Igushik River	22,596	315,960	0
Wood River	41,808	2,450,670	0
Nushagak River	11,325	1,666,558	0
Togiak River	7,710	45,654	0

Sockeye per Drift Delivery for: 07-13-2023

District	Sockeye per Delivery
Ugashik	1,020
Egegik	1,457
Naknek-Kvichak	1,512
Nushagak	1,301
Togiak	169

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Registrations as of: July 14, 9:00am - and - July 16, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Egegik	384	391	294	299	90	92
Naknek-Kvichak	706	712	536	541	170	171
Nushagak	337	337	249	249	89	89
Ugashik	229	233	171	173	58	60
Togiak	24	24	24	24		
Total	**1,680**	**1,697**	**1,274**	**1,286**	**407**	**412**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	77.7	22.3

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	81.1	18.9

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	10.2	11.4	78.3

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set	Unspecified
Percentage	3.1	77.6	19.3	0

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-14-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	128,927	1,077,032	100,140	441,062	225,000	1,743,094
Egegik	576,917	8,962,831	158,196	1,081,794	0	10,044,625
Naknek-Kvichak	1,584,768	9,268,127	380,844	4,795,668	150,000	14,213,795
Nushagak	678,542	10,623,609	56,599	4,489,787	0	15,113,396
Togiak	19,280	119,359	10,026	55,680	0	175,039
Totals:	2,988,434	30,050,958	705,805	10,863,991	375,000	41,289,949

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	100,140	441,062	225,000
Egegik River	158,196	1,081,794	0
Kvichak River	281,868	3,054,438	150,000
Alagnak River	13,770	826,704	0
Naknek River	85,206	914,526	0
Igushik River	22,494	338,454	0
Wood River	23,592	2,474,262	0
Nushagak River	10,513	1,677,071	0
Togiak River	10,026	55,680	0

Sockeye per Drift Delivery for: 07-14-2023

District	Sockeye per Delivery
Ugashik	513
Egegik	956
Naknek-Kvichak	1,696
Nushagak	1,138
Togiak	359

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Registrations as of: July 15, 9:00am - and - July 17, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Naknek-Kvichak	710	716	539	545	171	171
Egegik	387	388	295	296	92	92
Ugashik	231	233	172	173	59	60
Togiak	24	24	24	24		
Nushagak	338	338	250	250	89	89
Total	**1,690**	**1,699**	**1,280**	**1,288**	**411**	**412**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	76.5	23.5

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	80.6	19.4

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift	Unspecified
Percentage	9.1	10.5	80.4	0

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set	Unspecified
Percentage	3.3	77.4	19.3	0

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-15-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	242,941	1,319,973	106,956	548,018	250,000	2,117,991
Egegik	464,016	9,426,847	165,462	1,247,256	0	10,674,103
Naknek-Kvichak	980,914	10,249,041	180,180	4,975,848	100,000	15,324,889
Nushagak	376,391	11,000,000	79,771	4,569,558	0	15,569,558
Togiak	15,755	135,114	7,404	63,084	0	198,198
Totals:	2,080,017	32,130,975	539,773	11,403,764	350,000	43,884,739

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	106,956	548,018	250,000
Egegik River	165,462	1,247,256	0
Kvichak River	59,238	3,113,676	100,000
Alagnak River	23,892	850,596	0
Naknek River	97,050	1,011,576	0
Igushik River	15,402	353,856	0
Wood River	40,176	2,514,438	0
Nushagak River	24,193	1,701,264	0
Togiak River	7,404	63,084	0

Sockeye per Drift Delivery for: 07-15-2023

District	Sockeye per Delivery
Ugashik	1,454
Egegik	795
Naknek-Kvichak	1,170
Nushagak	825
Togiak	321

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Registrations as of: July 16, 9:00am - and - July 18, 9:00am

District	Permits	Permits in 48 hrs.	Vessels	Vessels in 48 hrs.	DBoats	DBoats in 48 hrs.
Nushagak	339	339	251	251	89	89
Egegik	384	385	292	293	92	92
Ugashik	231	231	171	171	60	60
Naknek-Kvichak	713	720	542	549	171	171
Togiak	24	24	24	24		
Total	**1,691**	**1,699**	**1,280**	**1,288**	**412**	**412**

Harvest Percentage by District

321 - Ugashik Traditional State Managed Fisheries

Fishery	Ugashik Drift	Ugashik Set
Percentage	80.8	19.2

322 - Egegik Traditional State Managed Fisheries

Fishery	Egegik Drift	Egegik Set
Percentage	80.5	19.5

324 - Naknek-Kvichak Traditional State Managed Fisheries

Fishery	Kvichak Set	Naknek Set	Naknek-Kvichak Drift
Percentage	8.7	10.1	81.2

325 - Nushagak Traditional State Managed Fisheries

Fishery	Igushik Set	Nushagak Drift	Nushagak Set
Percentage	3.4	77.1	19.5

Alaska Department of Fish and Game

Site Navigation

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-16-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	258,923	1,578,896	85,770	633,788	0	2,212,684
Egegik	431,844	9,858,691	130,056	1,377,312	0	11,236,003
Naknek-Kvichak	494,409	10,743,750	252,198	5,228,046	450,000	16,421,796
Nushagak	229,081	11,229,727	72,317	4,641,875	0	15,871,602
Togiak	12,976	148,090	7,818	70,902	0	218,992
Totals:	1,427,233	33,559,154	548,159	11,951,923	450,000	45,961,077

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	85,770	633,788	0
Egegik River	130,056	1,377,312	0
Kvichak River	127,014	3,240,690	450,000
Alagnak River	67,566	918,162	0
Naknek River	57,618	1,069,194	0
Igushik River	12,876	366,732	0
Wood River	39,726	2,554,164	0
Nushagak River	19,715	1,720,979	0
Togiak River	7,818	70,902	0

Sockeye per Drift Delivery for: 07-16-2023

District	Sockeye per Delivery
Ugashik	1,806
Egegik	860
Naknek-Kvichak	639
Nushagak	609
Togiak	355

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-17-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	223,148	1,802,044	94,878	728,666	0	2,530,710
Egegik	313,571	10,172,262	76,464	1,453,776	0	11,626,038
Naknek-Kvichak	343,289	11,087,577	262,980	5,491,026	300,000	16,878,603
Nushagak	139,137	11,370,365	67,244	4,709,119	0	16,079,484
Togiak	21,469	169,559	5,700	76,602	0	246,161
Totals:	1,040,614	34,601,807	507,266	12,459,189	300,000	47,360,996

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	94,878	728,666	0
Egegik River	76,464	1,453,776	0
Kvichak River	187,848	3,428,538	300,000
Alagnak River	54,870	973,032	0
Naknek River	20,262	1,089,456	0
Igushik River	36,144	402,876	0
Wood River	22,512	2,576,676	0
Nushagak River	8,588	1,729,567	0
Togiak River	5,700	76,602	0

Sockeye per Drift Delivery for: 07-17-2023

District	Sockeye per Delivery
Ugashik	1,092
Egegik	743
Naknek-Kvichak	627
Nushagak	437
Togiak	320

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-18-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	148,019	1,950,063	131,406	860,072	0	2,810,135
Egegik	254,317	10,426,579	29,232	1,483,008	0	11,909,587
Naknek-Kvichak	218,964	11,306,541	162,032	5,653,058	0	16,959,599
Nushagak	74,366	11,444,784	49,415	4,758,534	0	16,203,318
Togiak	25,967	195,526	6,840	83,442	0	278,968
Totals:	721,633	35,323,493	378,925	12,838,114	0	48,161,607

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	131,406	860,072	0
Egegik River	29,232	1,483,008	0
Kvichak River	123,732	3,552,270	0
Alagnak River	26,000	999,032	0
Naknek River	12,300	1,101,756	0
Igushik River	34,638	437,514	0
Wood River	10,620	2,587,296	0
Nushagak River	4,157	1,733,724	0
Togiak River	6,840	83,442	0

Sockeye per Drift Delivery for: 07-18-2023

District	Sockeye per Delivery
Ugashik	660
Egegik	847
Naknek-Kvichak	411
Nushagak	407
Togiak	304

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-19-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	81,400	2,031,463	140,634	1,000,706	0	3,032,169
Egegik	283,693	10,710,272	19,224	1,502,232	0	12,212,504
Naknek-Kvichak	436,973	11,743,514	69,804	5,731,920	0	17,475,434
Nushagak	99,099	11,543,883	41,846	4,800,380	0	16,344,263
Togiak	22,495	218,021	12,600	96,042	0	314,063
Totals:	923,660	36,247,153	284,108	13,131,280	0	49,378,433

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	140,634	1,000,706	0
Egegik River	19,224	1,502,232	0
Kvichak River	47,520	3,599,790	0
Alagnak River	12,894	1,020,984	0
Naknek River	9,390	1,111,146	0
Igushik River	23,538	461,052	0
Wood River	12,552	2,599,848	0
Nushagak River	5,756	1,739,480	0
Togiak River	12,600	96,042	0

Sockeye per Drift Delivery for: 07-19-2023

District	Sockeye per Delivery
Ugashik	507
Egegik	847
Naknek-Kvichak	896
Nushagak	685
Togiak	259

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-20-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	67,298	2,098,761	70,338	1,071,044	0	3,169,805
Egegik	203,215	10,913,487	20,412	1,522,644	0	12,436,131
Naknek-Kvichak	350,518	12,103,083	54,324	5,786,244	0	17,889,327
Nushagak	94,229	11,638,112	26,069	4,826,449	0	16,464,561
Togiak	10,748	228,769	13,452	109,494	0	338,263
Totals:	726,008	36,982,212	184,595	13,315,875	0	50,298,087

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	70,338	1,071,044	0
Egegik River	20,412	1,522,644	0
Kvichak River	23,202	3,622,992	0
Alagnak River	6,792	1,027,776	0
Naknek River	24,330	1,135,476	0
Igushik River	12,396	473,448	0
Wood River	9,096	2,608,944	0
Nushagak River	4,577	1,744,057	0
Togiak River	13,452	109,494	0

Sockeye per Drift Delivery for: 07-20-2023

District	Sockeye per Delivery
Ugashik	495
Egegik	772
Naknek-Kvichak	654
Nushagak	470
Togiak	182

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Alaska Department of Fish and Game

Site Navigation

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-23-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	22,600	2,212,622	2,076	1,112,510	0	3,325,132
Egegik	132,963	11,282,889	8,310	1,558,662	0	12,841,551
Naknek-Kvichak	97,135	12,476,022	25,626	5,935,014	0	18,411,036
Nushagak	17,061	11,722,845	23,948	4,913,914	0	16,636,759
Togiak	2,620	266,545	7,236	134,916	0	401,461
Totals:	272,379	37,960,923	67,196	13,655,016	0	51,615,939

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	2,076	1,112,510	0
Egegik River	8,310	1,558,662	0
Kvichak River	19,368	3,706,800	0
Alagnak River	6,258	1,072,008	0
Naknek River	0	1,156,206	0
Igushik River	11,256	505,620	0
Wood River	6,456	2,643,636	0
Nushagak River	6,236	1,764,658	0
Togiak River	7,236	134,916	0

Sockeye per Drift Delivery for: 07-23-2023

District	Sockeye per Delivery
Ugashik	530
Egegik	1,002
Naknek-Kvichak	496
Nushagak	291
Togiak	216

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Alaska Department of Fish and Game

Inseason Commercial Harvest Estimates

Bristol Bay Commercial Fisheries

Bristol Bay Fish Counts

Run Date: 07-30-2023 Go!

Total Run Summary

District	Catch Daily	Catch Cumulative	Escapement Daily	Escapement Cumulative	In-River Estimate	Total Run
Ugashik	0	2,277,445	0	1,128,476	0	3,405,921
Egegik	43,664	11,754,506	0	1,562,700	0	13,317,206
Naknek-Kvichak	7,649	12,726,891	0	6,006,516	0	18,733,407
Nushagak	0	11,770,572	3,996	4,958,585	0	16,729,157
Togiak	4,326	351,205	5,310	197,250	0	548,455
Totals:	55,639	38,880,619	9,306	13,853,527	0	52,734,146

Individual River Estimates

District	Escapement Daily	Escapement Cumulative	In-River Estimate
Ugashik River	0	1,128,476	0
Egegik River	0	1,562,700	0
Kvichak River	0	3,751,260	0
Alagnak River	0	1,099,050	0
Naknek River	0	1,156,206	0
Igushik River	3,996	537,294	0
Wood River	0	2,648,616	0
Nushagak River	0	1,772,675	0
Togiak River	5,310	197,250	0

Sockeye per Drift Delivery for: 07-30-2023

District	Sockeye per Delivery
Ugashik	0
Egegik	896
Naknek-Kvichak	377
Nushagak	0
Togiak	291

Test Fishery Port Moller

Date	Index Daily	Cumulative
2023-07-09 00:00:00.0	18	1,242
2023-07-10 00:00:00.0	21	1,263
2023-07-11 00:00:00.0	18	1,281
2023-07-12 00:00:00.0	9	1,290
2023-07-13 00:00:00.0	19	1,309

Appendix E

ADF&G season summary of the 2023 Bristol Bay salmon season. Published September 2023

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Advisory Announcement

For Immediate Release:
September 22, 2023

Time: 3:30 p.m.

CONTACT:
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2023 BRISTOL BAY SALMON SEASON SUMMARY

The following is an overview of the 2023 Bristol Bay commercial salmon season. All data are preliminary. The 2023 inshore Bristol Bay sockeye salmon run of 54.5 million fish (Table 1) was the 8th largest inshore run since 2003 and was 17% above the 46.7 million average run for the latest 20-year period (2003–2022).

The 2023 Bristol Bay sockeye salmon run was 10% above the preseason inshore forecast of 49.7 million fish (Table 2). Runs to every district were larger than their preseason forecasts. All sockeye salmon escapement goals were met or exceeded, with a total bay-wide escapement of 13.9 million fish (Table 3). The commercial harvest of 40.6 million sockeye salmon was 11% above the 36.6 million preseason forecast (Table 1). The preliminary harvest estimates for other species are 9,512 Chinook, 342,905 chum, 15,561 coho, and 3,142 pink salmon (Table 1).

EXVESSEL VALUE

Exvessel value of salmon caught in Bristol Bay in 2023 was estimated using the fish ticket weight, and price paid for each species. The 2023 Bristol Bay preliminary exvessel value of $117.4 million (Table 4) for all salmon species was 37% below the 20-year average of $187.6 million. Prices are based on the major buyers' base price and do not include future price adjustments for icing, bleeding, floating, or production bonuses.

SPECIES PERFORMANCE

Sockeye Salmon

The 2023 harvest of 40.6 million sockeye salmon was 27% higher than the recent 20-year average of 31.9 million for all districts (Table 5). Nushagak and Wood River sockeye salmon escapements were above the sustainable escapement goal (SEG) ranges, but within the optimum escapement goal (OEG) ranges adopted this year by the Alaska Board of Fisheries for Chinook salmon conservation (Table 3). The sockeye salmon escapement goal was exceeded on the Igushik River, but all other systems were within their respective escapement goal ranges (Table 3). Overall, run timing was one day late compared to the 10-year average.

The 2023 Bristol Bay sockeye salmon run was dominated by 3-ocean fish, or fish with three years of ocean growth. The 1.3 age class composed roughly 61% of the total run to Bristol Bay and came in well over its preseason forecast of 46%. Age 2.3 fish made up the next largest component of the run at 19%, which was also above the forecasted 9%. Fish with two years of marine growth (1.2s and 2.2s) made up most of the remaining age classes seen in 2023. The 1.2 and 2.2 age classes made up 13% and 5% of the

total return, respectively, which is less than half of their preseason forecasts. Average weight for sockeye salmon in 2023 was 5.5 pounds (Table 4) which is slightly larger than recent years due to the high percentage of larger 3-ocean fish and in line with the most recent 20-year average.

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 harvests in Bristol Bay, was again actively managed to reduce Chinook salmon harvest in an effort to meet the escapement goal. Overall, the 2023 Chinook salmon harvests were below average in all districts of Bristol Bay (Table 6). A preliminary total of 9,512 (Table 6) Chinook salmon were harvested, which is below the most recent 20-year average of 40,741 fish, and the third lowest in the last 20 years. The Nushagak District Chinook salmon harvest was 6,847 fish (Table 6), which is well below the 20-year average harvest of 32,491 fish.

The Nushagak River Chinook salmon in-river run index at Portage Creek Sonar was 31,499 fish, which is below the escapement goal range of 55,000–120,000 fish and the in-river goal of 95,000 fish.

Chum Salmon

The 2023 preliminary Bristol Bay chum salmon harvest was 342,905 fish (Table 1), well below the recent 20-year average of 1.1 million fish. The Nushagak District is the largest producer of chum salmon and had a harvest of 175,090 fish (Table 1). The Nushagak River chum salmon escapement of 110,379 fish was below the lower bound sustainable escapement goal of 200,000 fish.

Pink Salmon

There was no directed fishery for pink salmon in 2023 because they are predominantly an even year species in Bristol Bay and were thus not abundant. The harvest was incidental to the sockeye salmon fishery and totaled 3,142 fish (Table 1). Pink salmon escapement is not monitored in Bristol Bay.

Coho Salmon

The preliminary coho salmon harvest in 2023 was 15,561 fish (Table 1), which was below the recent 20-year average of 97,620 fish. The Nushagak District is typically the largest producer of coho salmon and accounted for 7,098 of the fish harvest in 2023. Egegik District produced 6,732 coho salmon harvest in 2023 (Table 1). Harvests of coho salmon can be variable from year to year depending on processor availability, market conditions, and overall fishing effort. In 2023, fishing ended early due in part to bad weather and low market interest in purchasing coho salmon. Coho salmon escapement is not monitored in Bristol Bay.

ALLOCATION

Bristol Bay fisheries are managed for allocation (secondary to escapement) between drift and set gillnet gear groups in four of five districts. The 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. Table 7 lists the allocation goals and the actual harvest percentages for 2023. During years with large sockeye salmon returns, gear group allocations can be difficult to achieve when the primary objective is managing to meet escapement goals.

Acknowledgements

The department would 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. Programs previously funded by BBFC are now fully funded by the State of Alaska. 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 which 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, BBSRI continued an on-board genetics laboratory that provided real-time genetic stock composition of fish passing Port Moller Test Fishery.

Table 1.–Preliminary 2023 Bristol Bay salmon harvest and escapement by district and species. ND = no data collected.

District	Sockeye	Chinook	Chum	Pink	Coho	TOTAL
Naknek-Kvichak catch	13,154,400	1,206	54,941	280	1,126	13,211,953
Escapement-Kvichak tower	3,751,686	ND	ND	ND	ND	3,751,686
Naknek tower	1,156,206	ND	ND	ND	ND	1,156,206
Alagnak tower	1,099,050	ND	ND	ND	ND	1,099,050
Naknek-Kvichak subtotal	19,161,342	1,206	54,941	280	1,126	19,218,895
Egegik catch	12,681,679	440	43,015	116	6,732	12,731,982
Escapement-Egegik tower	1,562,700	ND	ND	ND	ND	1,562,700
Egegik subtotal	14,244,379	440	43,015	116	6,732	14,294,682
Ugashik catch	2,265,313	317	17,114	42	197	2,282,983
Escapement-Ugashik tower	1,128,896	ND	ND	ND	ND	1,128,896
Ugashik subtotal	3,394,209	317	17,114	42	97	3,411,879
Nushagak catch	12,010,310	6,847	175,090	514	7,098	12,199,859
Escapement- Wood tower	2,648,616	ND	ND	ND	ND	2,648,616
Igushik tower	542,496	ND	ND	ND	ND	542,496
Nushagak sonar[a]	1,772,676	31,499	110,380	ND	ND	1,914,555
Nushagak subtotal	16,974,098	38,346	285,470	514	7,098	17,305,526
Togiak catch	442,861	702	52,745	2,190	408	498,906
Escapement - Togiak tower	268,218	ND	ND	ND	ND	268,218
Togiak subtotal	711,079	702	52,745	2,190	408	767,124
Bristol Bay catch	40,554,563	9,512	342,905	3,142	15,561	40,925,683
Bristol Bay escapement	13,930,544	ND[b]	ND[b]	ND[b]	ND[b]	14,072,423
Bristol Bay total run	54,485,107	ND[b]	ND[b]	ND[b]	ND[b]	54,998,106

[a] Nushagak sonar indexed Chinook, sockeye, and chum salmon in 2023.

[b] Incomplete data for Bristol Bay.

Table 2.–Difference between Bristol Bay sockeye salmon actual inshore run and preseason forecast, 2023.

District	Inshore forecast	Inshore run	% Above/below forecast
Naknek-Kvichak	18,340,000	19,161,342	4% Above
Egegik	11,100,000	14,244,379	28% Above
Ugashik	3,260,000	3,394,209	4% Above
Nushagak	16,270,000	16,974,098	4% Above
Togiak	680,000	711,079	5% Above
Totals	49,650,000	54,485,107	10% Above

Table 3.–Bristol Bay sockeye salmon escapement goals and actual escapements, 2023.

River system	Escapement goal range	Escapement
Kvichak River	2,000,000–10,000,000	3,751,686
Naknek River	800,000–2,000,000	1,156,206
Alagnak River	320,000 minimum	1,099,050
Egegik River	800,000–2,000,000	1,562,700
Ugashik River	500,000–1,400,000	1,128,896
Nushagak River OEG	370,000–2,000,000	1,772,676
Nushagak River SEG	370,000-900,000	
Wood River OEG	700,000–3,000,000	2,648,616
Wood River SEG	700,000-1,800,000	
Igushik River	150,000–400,000	542,496
Togiak River	120,000–270,000	268,218
Total		13,930,544

Table 4.–Average price, weight, harvest, and value of salmon harvest in Bristol Bay, 2023.

Species	Price/lb.	Avg. weight (lb.)	Number of fish	Total weight	Value
Sockeye	$0.52	5.54	40,554,563	224,672,279	$116,829,585
Chinook	$0.10	10.03	9,512	95,405	$9,254
Chum	$0.29	5.78	342,905	1,981,991	$574,777
Pink	$0.06	3.24	3,142	10,180	$611
Coho	$0.29	5.88	15,561	91,499	$26,535
Totals			40,925,683	226,851,354	$117,440,762

Table 5.–2023 Preliminary commercial sockeye salmon harvests and 20-year averages by district.

District	2003–2022 average sockeye harvest	2023 sockeye salmon harvest
Naknek-Kvichak	9,758,065	13,154,400
Egegik	8,388,415	12,681,679
Ugashik	3,398,372	2,265,313
Nushagak	9,711,992	12,010,310
Togiak	616,763	442,861
Totals	31,873,607	40,554,563

Table 6.– 2023 Preliminary Chinook salmon harvest and 20-year averages by district.

District	2003–2022 average Chinook salmon harvest	2023 Chinook salmon harvest
Naknek-Kvichak	1,721	1,206
Egegik	757	440
Ugashik	955	317
Nushagak	32,491	6,847
Togiak	4,817	702
Totals	40,741	9,512

Table 7.–Allocation of Bristol Bay drift and set gillnet harvest, 2023.

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% / 81%	16% / 19%	Naknek: 8% / 10% Kvichak: 8% / 9%
Egegik	86% / 81%	14% / 19%	–
Ugashik	90% / 81%	10% / 19%	–
Nushagak [a]	74% /77 %	26% / 23%	Nushagak: 20% / 17% Igushik: 6% / 3% Wood River NA/3%

[a] Wood River Special Harvest Area harvest is included in Nushagak District calculations.