

UW-FRI Daily Update

July 21, 2023 (data through July 20)

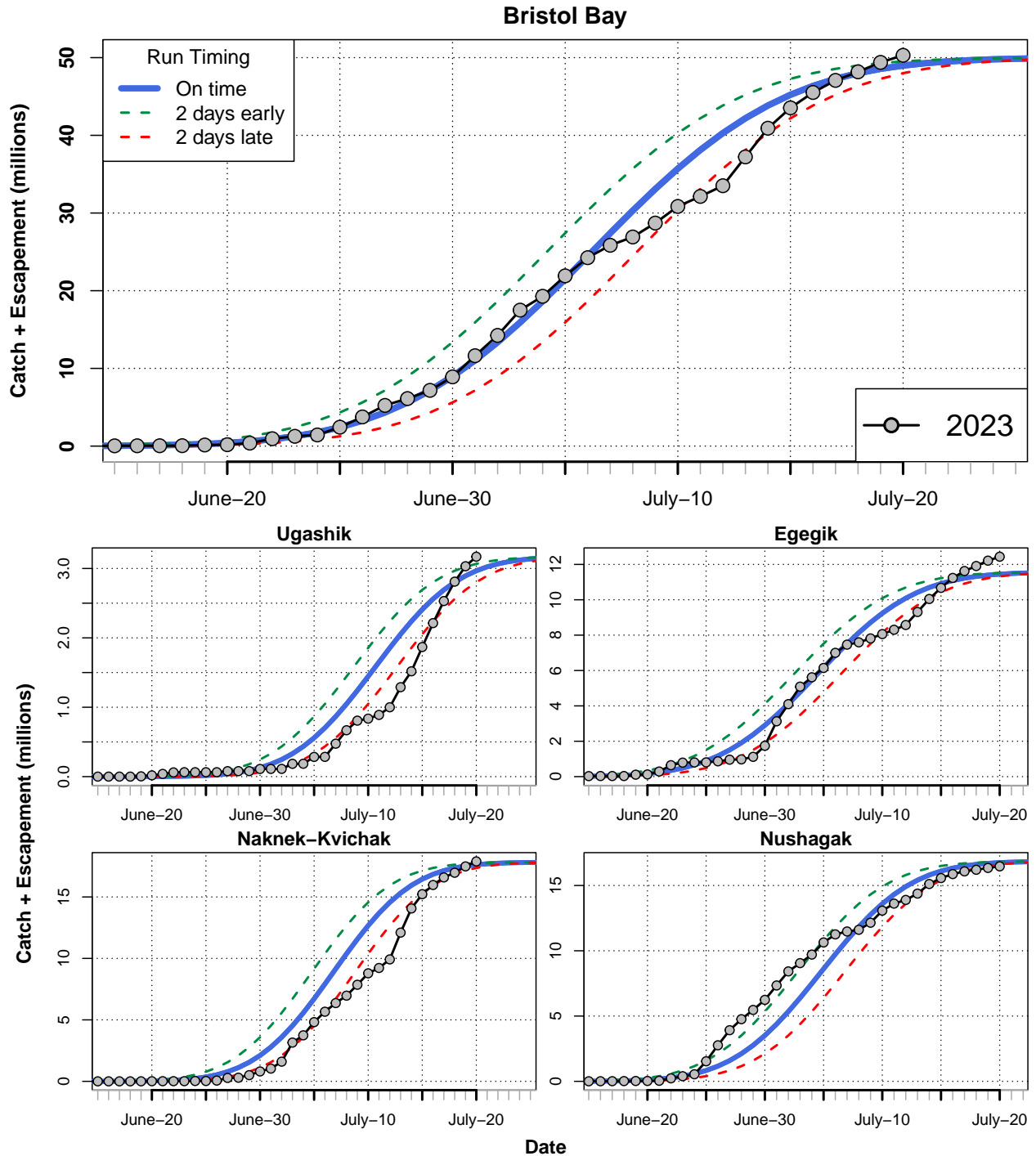


Figure A. Cumulative C+E Comparison: Comparison of daily cumulative C+E observed for Bristol Bay in 2023, and expected daily values (blue curve). Expected daily values are calculated relative to the 2023 pre-season forecast and the average distribution of inshore arrivals (1980–2022). Connected gray dots show the 2023 observed daily cumulative C+E. Green dashed line represents expectations if the run is 2 days early, red dashed line if the run is 2 days late.

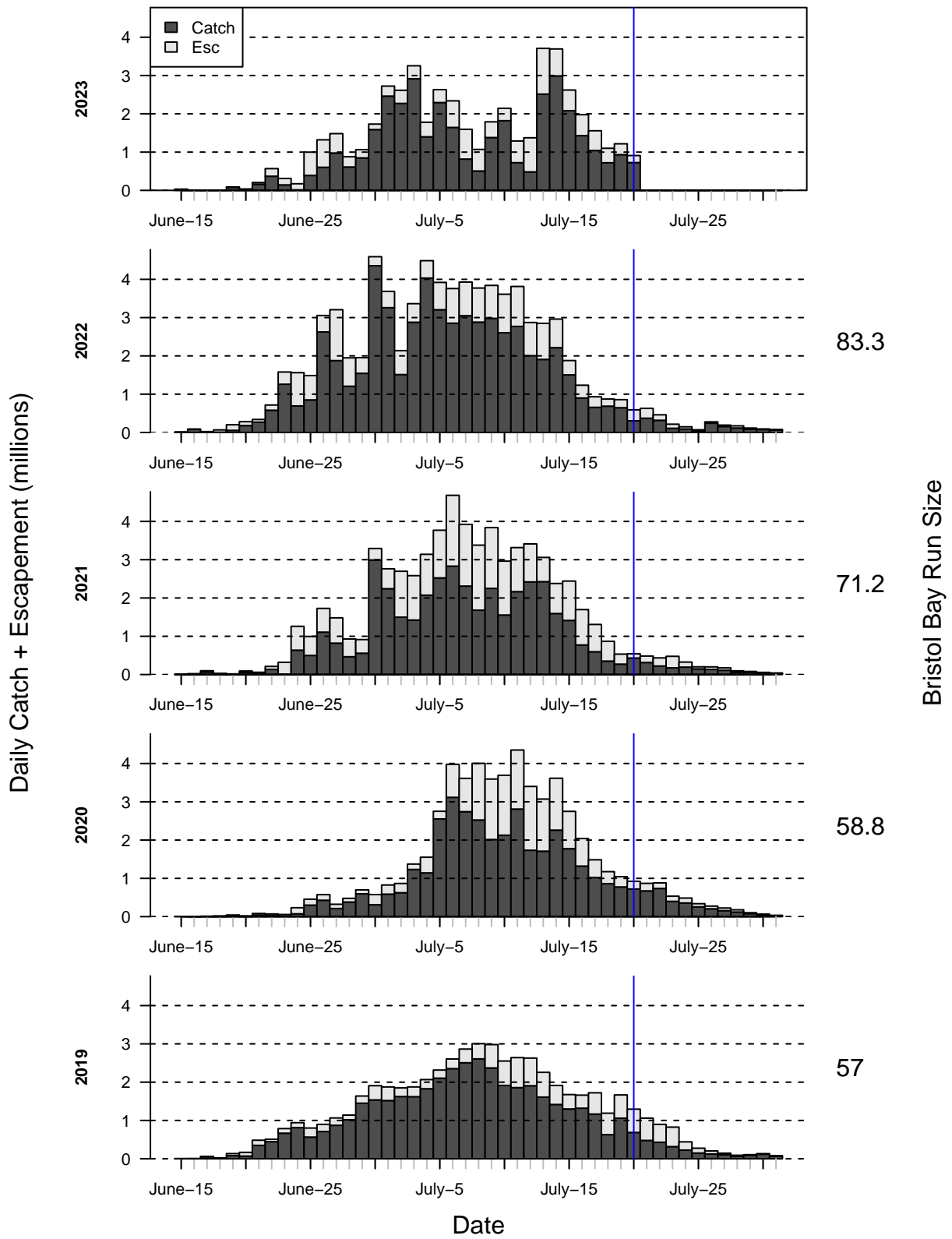


Figure B. Daily Catch and Escapement: Observed catch and escapement for years 2019-2022 as stacked bars, compared with 2023 (top). Escapements are in light gray and catches in dark gray. Total Bristol Bay run size in millions of sockeye is shown at the right.

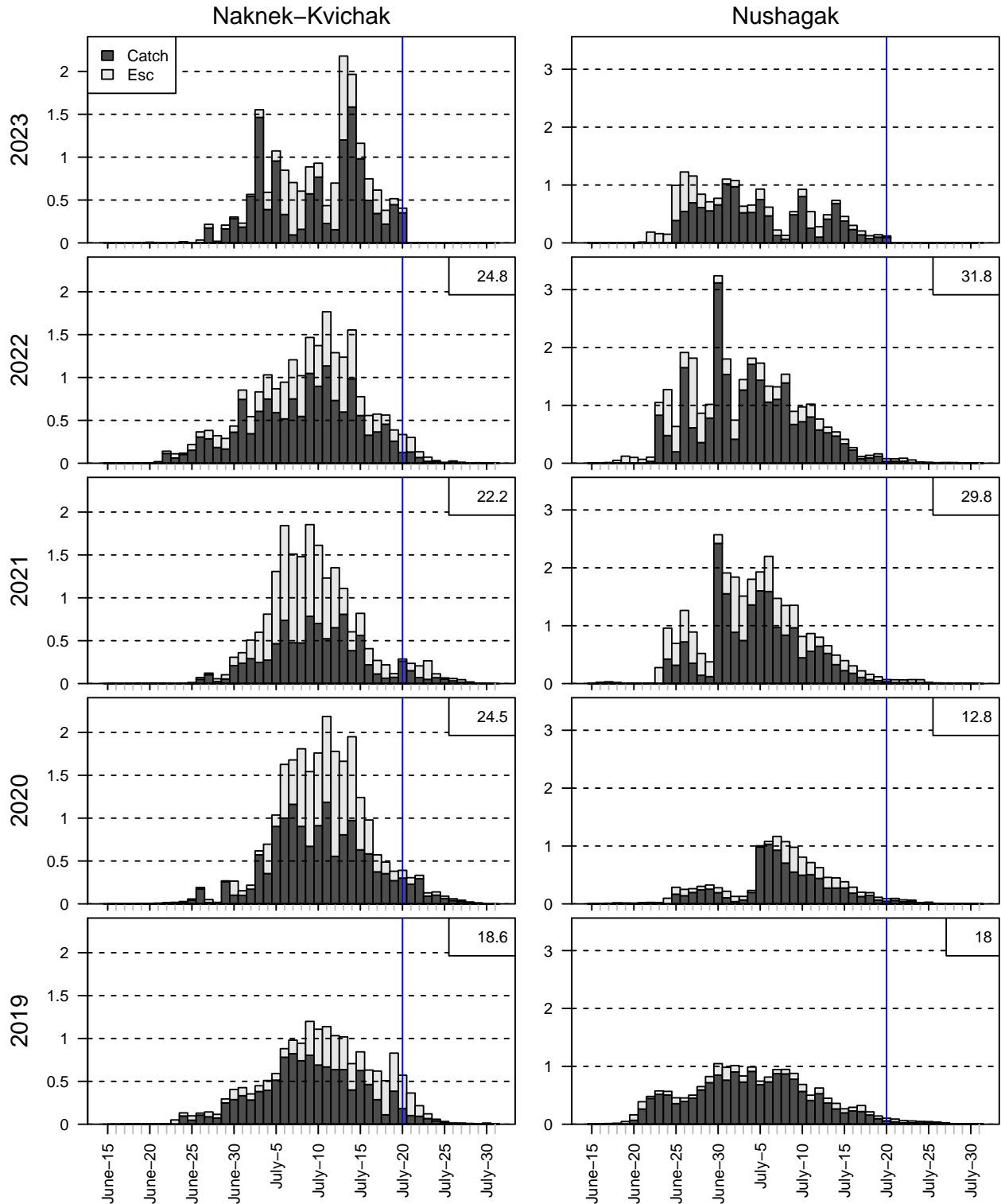


Figure C. Daily Naknek-Kvichak and Nushagak District C+E: Observed daily catch and escapement by district for years 2019-2023 as stacked bars. Escapements are in light gray and catches in dark gray. Total run for each district and year is listed in the upper right corner in millions of sockeye.

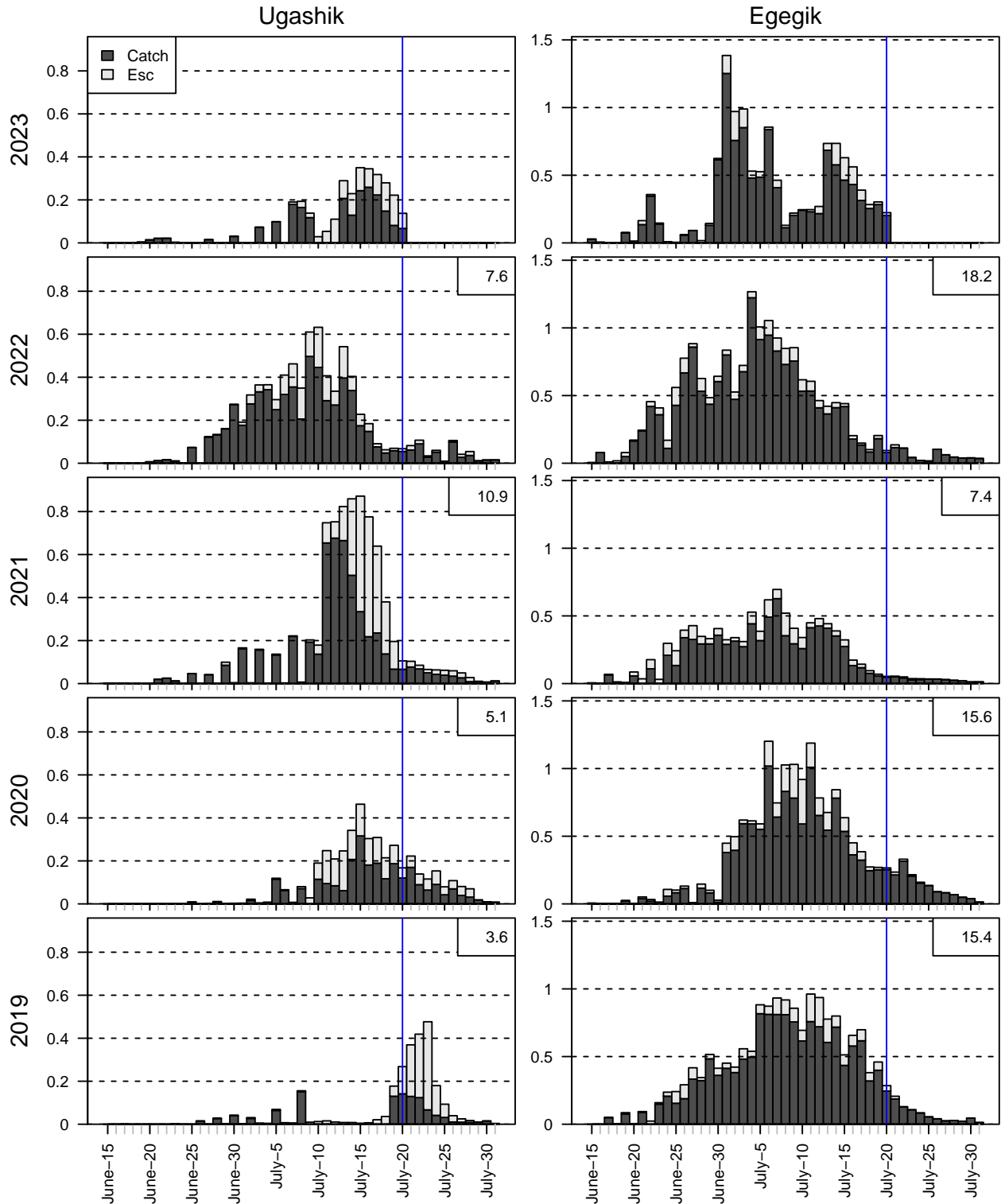


Figure D. Daily Ugashik and Egegik District C+E: Observed daily catch and escapement by district for years 2019-2023 as stacked bars. Escapements are in light gray and catches in dark gray. Total run for each district and year is listed in the upper right corner in millions of sockeye.

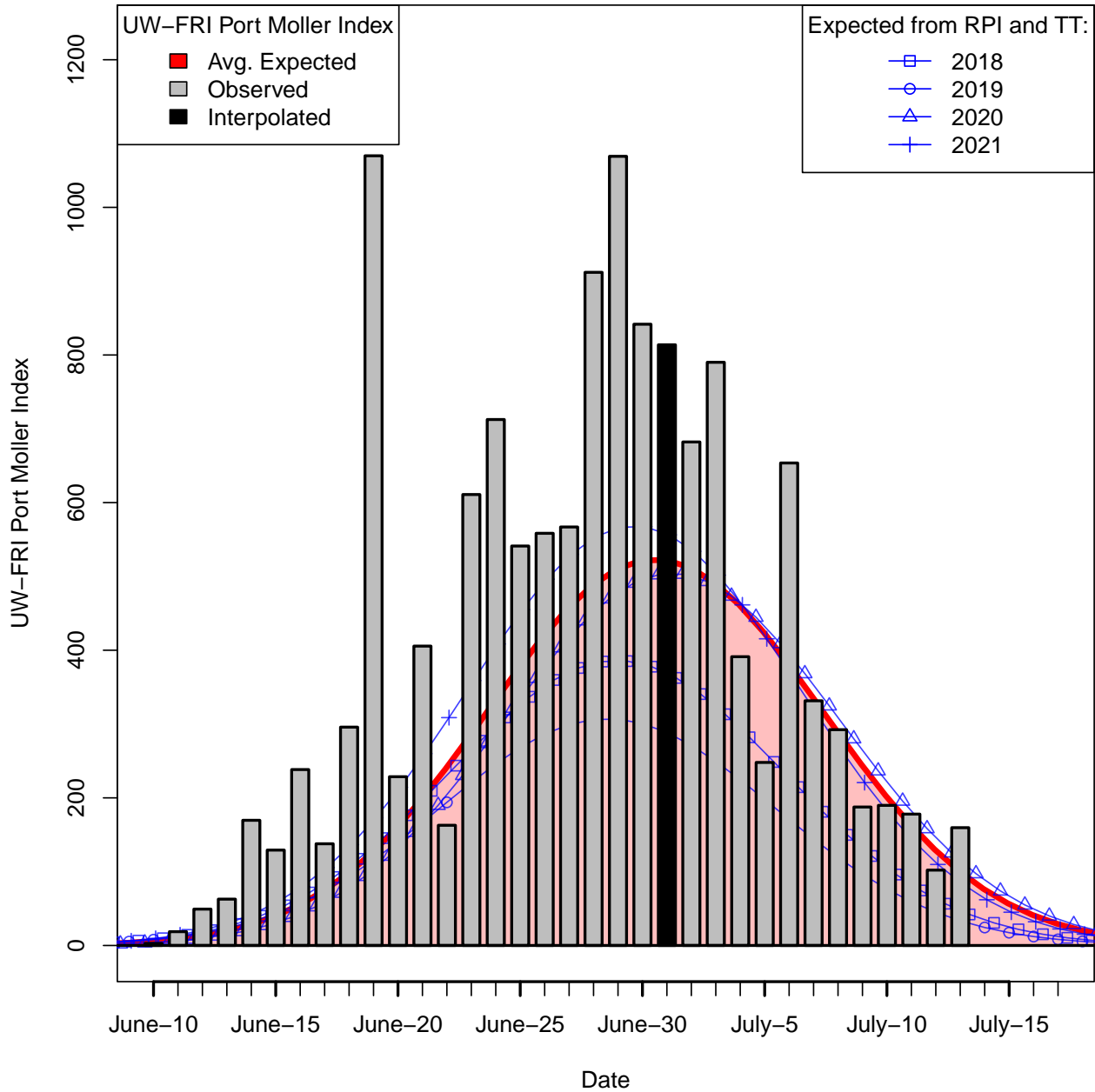


Figure E. Comparison of Expected & Observed Daily Port Moller Index: 2023 observed and interpolated (gray and black bars) UW-FRI Port Moller Index is compared with expected daily index values (red line and shaded area) for a Bristol Bay run equal to the preseason forecast with average run timing, and exhibiting average Port Moller to inshore travel time (TT) and run-per-index (RPI). Expected daily index values for a run at the preseason forecast, with TT and RPI equal to those observed in 2018-2021 are plotted with blue lines and symbols.

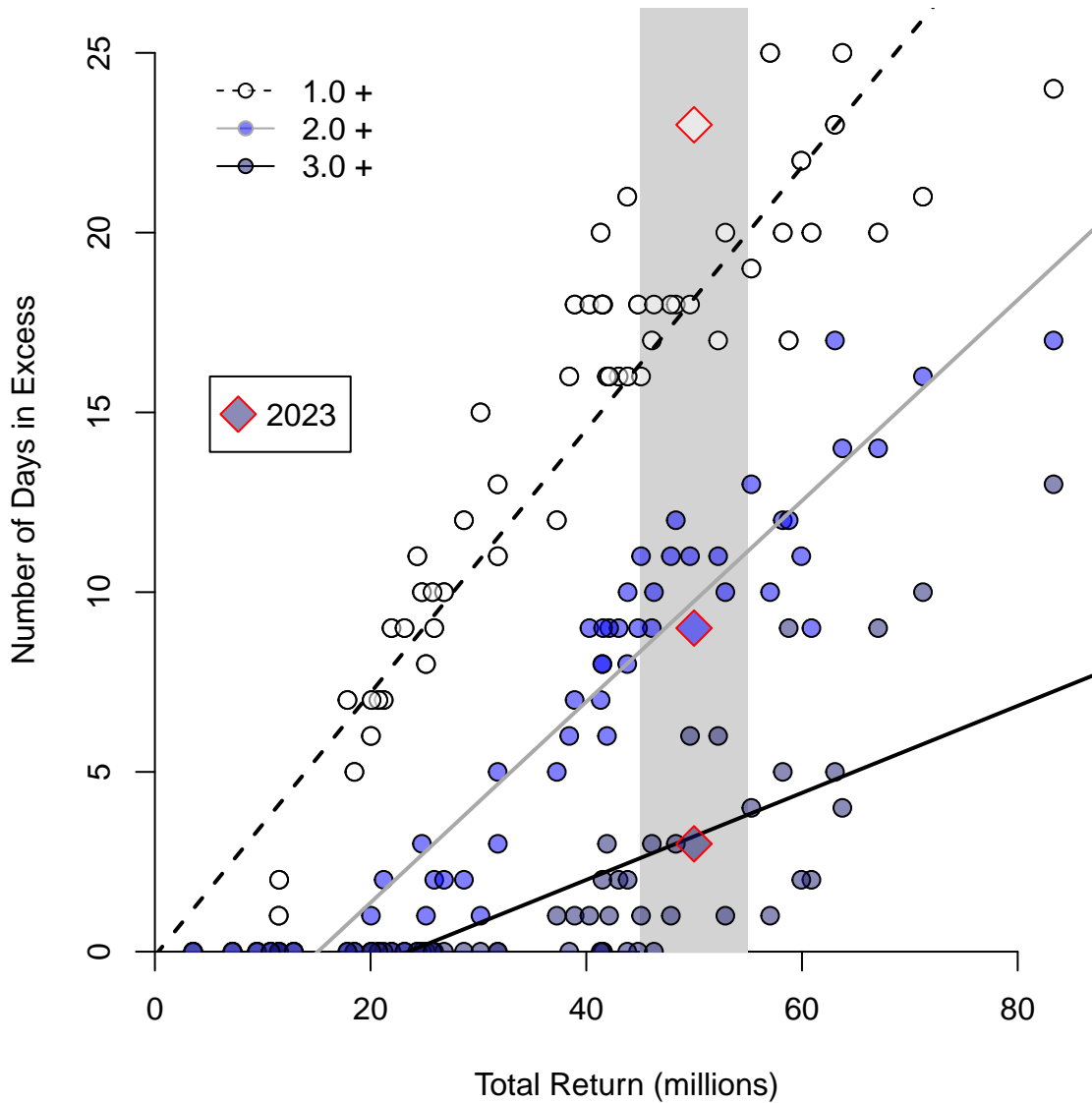


Figure F. Expected C+E Days: Total number of days in which the catch + escapement exceeded 1.0, 2.0 or 3.0 million fish as a function of the total run size from 1965 to 2022. Fitted lines indicate the expected number of days in excess, for a specific total return. Shaded area encompasses the data for total returns between 45 and 55 million fish. Red outlined diamonds are 2023 observed C+E days in excess of 1.0, 2.0, or 3.0 million fish. Note: the red outlined diamonds will be stacked on the horizontal axis until the first 1.0 million fish day is recorded.

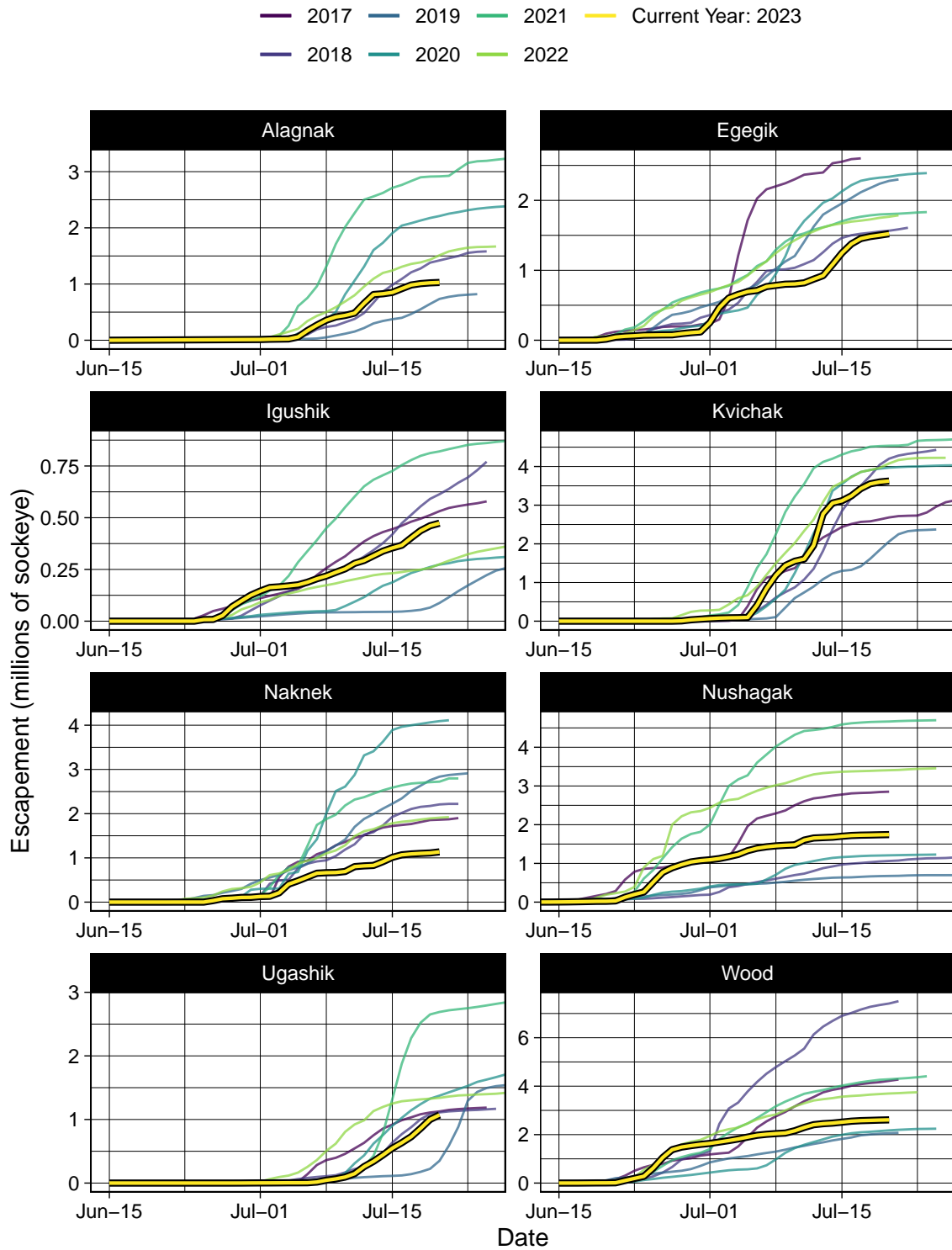


Figure G. Bristol Bay Sockeye Escapement: 2017-2023 cumulative sockeye salmon escapements to Bristol Bay river systems.

Acknowledgements

Bristol Bay catch and escapement data were collected by the Alaska Department of Fish and Game, with support from the Bristol Bay Fisheries Collaborative (BBFC). The Port Moller Test Fishery is operated by the Bristol Bay Science and Research Institute (BBSRI). Data visualization and interpretation is by UW-FRI, please direct any questions to Curry Cunningham (UAF) or Chris Boatright (UW) at 907-842-5380.