C3 Herring biomass estimate - EBS 2024 December 2023



Department of Fish and Game

Division of Commercial Fisheries Headquarters Office

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November 27, 2023

Mr. David Witherell, Executive Director North Pacific Fishery Management Council 1007 West Third Avenue, Suite 400 L92 Building, 4th floor Anchorage, AK 99501

Dear Mr. Witherell:

This letter provides an estimate of the mature biomass of Pacific herring (*Clupea pallasii*) in the eastern Bering Sea for the purposes of establishing the 2024 prohibited species catch (PSC) limit per Amendment 16A of the Bering Sea/Aleutians Islands Groundfish FMP. In 2023, there were aerial surveys for the Togiak stock, but no sampling for age composition or weight at age. As a result, the statistical catch at age model was not used to forecast Togiak biomass. None of the other eastern Bering Sea stocks were surveyed. The forecast for Togiak is complete and department staff members are currently drafting an advisory announcement that will update the public on current stock status and fishery harvest limits. The department recommends using a recent indication of population size for Togiak (10-year median of sufficiently rated aerial survey biomass estimates) and a long-term indication of population sizes for the other management stocks (> 30-year medians of sufficiently rated aerial survey biomass estimates) as the basis for the 2024 PSC limit. Values are contained in the attached tables. The combined biomass for the eastern Bering Sea in 2024 is estimated to be 279,450 short tons, equivalent to 253,511 metric tons.

Sincerely,

Sherri Dressel

Statewide Herring Fisheries Scientist

Table 1. Estimates of Pacific herring mature biomass for spawning aggregations in the eastern Bering Sea, Alaska, for purpose of establishing the 2024 prohibited species catch limit.

Spawning area	short tons	metric tons
Norton Sound	34,180	31,007
Cape Romanzof	3,638	3,300
Nunivak Island	4,921	4,464
Nelson Island	5,420	4,917
Cape Avinof	2,083	1,890
Goodnews Bay	5,207	4,724
Security Cove	5,249	4,762
Togiak	216,037	195,984
Port Moller/Port Heiden	2,715	2,463
Total	279,450	253,511

Table 2. Pacific herring mature biomass projections (mt) for spawning aggregations in the eastern Bering Sea, Alaska, provided to the North Pacific Fishery Management Council for the purpose of establishing the 2016–2024 prohibited species catch limits per Amendment 16A of the Bering Sea/Aleutians Islands Groundfish FMP.

Spawning area	2016	2017	2018	2019	2020	2021	2022	2023	2024
Norton Sound	48,794	31,007	31,007	31,007	31,007	31,007	31,007	31,007	31,007
Cape Romanzof	4,366	4,678	4,678	3,300	3,300	3,300	3,300	3,300	3,300
Nunivak Island	140	3,540	3,540	4,464	4,464	4,464	4,464	4,464	4,464
Nelson Island	27,422	4,785	4,785	4,916	4,916	4,916	4,916	4,916	4,917
Cape Avinof	9,456	3,126	3,126	1,890	1,890	1,890	1,890	1,890	1,890
Goodnews Bay	8,263	4,724	4,724	4,724	4,724	4,724	4,724	4,724	4,724
Security Cove	8,540	4,781	4,781	4,762	4,762	4,762	4,762	4,762	4,762
Togiak	147,185	142,453	124,062	197,355	195,793	214,768	324,350	286,853	195,984
Port Moller/ Port Heiden	8,932	2,184	2,268	2,291	2,350	2,449	2,463	2,463	2,463
Total	263,098	201,278	182,971	254,709	253,207	272,281	381,876	344,379	253,511

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