B5 Herring biomass estimate - EBS 2022 December 2021



Department of Fish and Game

Division of Commercial Fisheries Headquarters Office

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November 24, 2021

Mr. David Witherell, Executive Director North Pacific Fishery Management Council 604 West 4th Avenue, Suite 306 Anchorage, AK 99501-2252

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 2022 prohibited species catch (PSC) limit per Amendment 16A of the Bering Sea/Aleutians Islands Groundfish FMP. In 2021, there were surveys for the Togiak and Port Moller/Port Heiden stocks; 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 the sum of the Togiak 2022-forecast biomass and a general indication of population sizes for the other management stocks (long-term medians of aerial survey biomass estimates) as the basis for the 2022 PSC limit. Values are contained in the attached tables. The combined biomass for the eastern Bering Sea in 2022 is estimated to be 420,948 short tons, equivalent to 381,876 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 2022 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	4,916
Cape Avinof	2,083	1,890
Goodnews Bay	5,207	4,724
Security Cove	5,249	4,762
Togiak	357,536	324,350
Port Moller/Port Heiden	2,715	2,463
Total	420,948	381,876

Table 2. Pacific herring mature biomass projections (mt) for spawning aggregations in the eastern Bering Sea, Alaska, provided to the North Pacific Fisheries Management Council for the purpose of establishing the 2014-2022 prohibited species catch limits per Amendment 16A of the Bering Sea/Aleutians Islands Groundfish FMP.

Spawning area	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Norton Sound	47,299	48,794	48,794	31,007	31,007	31,007	31,007	31,007	31,007	
Cape Romanzof	2,634	4,366	4,366	4,678	4,678	3,300	3,300	3,300	3,300	
Nunivak Island	2,068	5,132	140	3,540	3,540	4,464	4,464	4,464	4,464	
Nelson Island	3,882	27,422	27,422	4,785	4,785	4,916	4,916	4,916	4,916	
Cape Avinof	1,200	9,456	9,456	3,126	3,126	1,890	1,890	1,890	1,890	
Goodnews Bay	7,116	16,812	8,263	4,724	4,724	4,724	4,724	4,724	4,724	
Security Cove	7,852	11,681	8,540	4,781	4,781	4,762	4,762	4,762	4,762	
Togiak	142,834	148,306	147,185	142,453	124,062	197,355	195,793	214,768	324,350	
Port Moller/ Port Heiden	2,268	2,268	8,932	2,184	2,268	2,291	2,350	2,449	2,463	
Total	217,153	274,236	263,098	201,278	182,971	254,709	253,207	272,281	381,876	

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