

# 2022/23 Stock Status Determination for Aleutian Islands Golden King Crab

Tyler Jackson  
Alaska Department of Fish and Game, tyler.jackson@alaska.gov

September 2023

## Summary

The full assessment of Aleutian Islands golden king crab (AIGKC) was conducted in May 2023 (Siddeek et al., 2023), prior to the completion of the directed fishery and groundfish bycatch fisheries. This document updates the full assessment with final stock status determination for the 2022/23 crab year (July 1, 2022 - June 30, 2023) relative to completed estimates of fishing mortality and associated biological reference points. The May 2022 assessment determined the overfishing limit (OFL) for 2022/23 season to be 3,761 t (8.291 million lb) with an acceptable biological catch (ABC) of 2,821 t (6.219 million lb). Completed total fishery removals for the 2022/23 season were 2,567 t (5.659 million lb), consisting of 2,369 t (5.223 million lb) retained catch, 187 t (0.413 million lb) discard mortality in the directed fishery, and 11 t (0.024 million lb) bycatch mortality in groundfish fisheries. Since total fishery-related mortality was less than the OFL for 2022/23, **overfishing did not occur** on this stock in 2022/23.

Following completion of the 2022/23 crab fishery, the model determined the MSST to be (5,826 t) and MMB to be (13,585 t) (note: slightly different values from the incomplete fishery estimates). Since MMB was greater than MSST, this stock was **not overfished** in 2022/23.

The following two tables update the management performance tables presented in the May 2023 SAFE Report with completed fishery estimates of retained and total catch for 2022/23:

Table 1: Status and catch specifications (1,000 t) of Aleutian Islands golden king crab

Year	MSST	Biomass	TAC	Retained	Total	OFL	ABC
2019/20	5.909	16.323	3.257	3.319	3.729	5.249	3.937
2020/21	6.026	16.207	2.999	3.000	3.519	4.798	3.599
2021/22	5.859	12.592	2.690	2.699	3.060	4.817	3.372
2022/23	5.832 <sup>a</sup>	13.600 <sup>a</sup>	2.291	2.369	2.567	3.761	2.821
2023/24		12.069 <sup>a</sup>				4.182 <sup>a</sup>	3.137 <sup>a</sup>

<sup>a</sup>Estimated by the accepted model 22.1e2 in May 2023 when the 2022/23 fishery was still ongoing

Table 2: Status and catch specifications (million lb) of Aleutian Islands golden king crab

Year	MSST	Biomass	TAC	Retained	Total	OFL	ABC
2019/20	13.027	35.985	7.180	7.317	8.221	11.572	8.679
2020/21	13.284	35.730	6.610	6.614	7.758	10.579	7.934
2021/22	12.917	27.760	5.930	5.951	6.746	10.620	7.434
2022/23	12.857 <sup>a</sup>	29.984 <sup>a</sup>	5.050	5.223	5.659	8.291	6.219
2023/24		26.607 <sup>a</sup>				9.220 <sup>a</sup>	6.916 <sup>a</sup>

<sup>a</sup>Estimated by the accepted model 22.1e2 in May 2023 when the 2022/23 fishery was still ongoing

## Literature

Siddeek, MSM, B Daly, T Jackson. Aleutian Islands Golden King Crab Stock Assessment. May 2023 Crab SAFE Report, BSAI Crab SAFE 2023, NPFMC, Anchorage, Alaska.