

# 2021 update to the SAFE report for Pribilof Islands red king crab

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The Pribilof Islands red king crab (PIRKC) assessment is on a triennial cycle. This year (2021) is an ‘off’ year in the cycle, so an update to determine whether or not overfishing occurred in 2020/21 is presented here. The next full assessment will occur in 2022.

The most recent full assessment was conducted in September 2019. This report updates that assessment with final retained catch and bycatch mortality estimates in the directed fishery, other crab fisheries, and the groundfish fisheries to determine the status of the stock during the 2019/2020 fishery year (July 1, 2019-June 30, 2020). The 2019 SAFE report determined the overfishing level (OFL) for PIRKC to be 864 t, with an acceptable biological catch of 648 t.

Following completion of the 2020/2021 crab fishery year, data on retained catch and bycatch were obtained from the Alaska Department of Fish and Game (ADFG) and the NMFS Alaska Regional Office (via the Alaska Fisheries Information Network, AKFIN). There was no directed fishery in 2020/21, so no retained catch was recorded. There was also zero bycatch in the tanner or snow crab fisheries. Bycatch in the groundfish fisheries totaled 6.36 t. After applying gear-specific discard mortality rates, this amounted to 5.088 t. Overfishing did not occur for PIRKC during 2020/21 because the total catch mortality did not exceed the ABC (648 t).

The following two tables update the management performance tables presented in the Addendum to the 2020 SAFE report. The MMB input for 2019/2020 was based on the >120 mm carapace length crab biomass observed in the survey, rather than the estimates from the GMACS model adopted in 2019. This will be updated in 2022.

Table 1: Historical status and catch specifications for Pribilof Islands red king crab (t).

Year	MSST	Biomass (MMB)	TAC	Retained catch	Total catch	OFL	ABC
2014/15	2871	8894	0	0	1.06	1359	1019
2015/16	2756	9062	0	0	4.32	2119	1467
2016/17	2751	4788	0	0	0.94	1492	1096
2017/18	2751	3439	0	0	1.41	404	303
2018/19	866	5368	0	0	7.22	404	303
2019/20	866	6431	0	0	3.84	864	648
2020/21	866		0	0	5.09	864	648
2021/22						864	648

Table 2: Historical status and catch specifications for Pribilof Islands crab (millions of lbs).

Year	MSST	Biomass (MMB)	TAC	Retained catch	Total catch	OFL	ABC
2014/15	6.33	19.61	0	0	0	3	2.25
2015/16	6.08	19.98	0	0	0.01	4.67	3.23
2016/17	6.06	10.56	0	0	0	3.29	2.42
2017/18	6.06	7.58	0	0	0	0.89	0.67
2018/19	1.91	11.83	0	0	0.02	0.89	0.67
2019/20	1.91	14.18	0	0	0.01	1.9	1.43
2020/21	1.91		0	0	0.01	1.9	1.43
2021/22						1.9	1.43