

## **10 Western Aleutian Islands red king crab**

In accordance with the approved schedule, the Western Aleutian Islands king crab assessment is conducted triennially with the previous assessment in 2020. Therefore, a full stock assessment was conducted in 2023 with results to be applied for the 2023/24, 2024/25, and 2025/26 specifications. Additional information listed below summarizes the 2023 assessment.

### ***Fishery information relative to OFL and ABC setting***

After 1995/96, the fishery was opened only occasionally. There was an exploratory fishery in 1998/99, three commissioner's permit fisheries in limited areas during 2000/01–2002/03 to allow for ADF&G-Industry surveys, and two commercial fisheries with a GHF of 227 t in 2002/03 and 2003/04 in the Petrel Bank area. The fishery has been closed since 2003/04.

Bycatch of red king crabs occurs in both the directed red king crab fishery, the Aleutian Islands golden king crab fishery, and in groundfish fisheries. Estimated annual total fishing mortality from 1995/96 to 2022/23 averaged 27 t. The average retained catch during that period was 20 t. This fishery is rationalized under the Crab Rationalization Program only for the area west of 179° W longitude.

### ***Data and assessment methodology***

The 1960/61 to 2022/23 time series of retained catch (number and pounds of crabs), effort (vessels, landings, and pot lifts), average weight and average carapace length of landed crabs, and catch-per-unit effort (number of crabs per pot lift) are available. Bycatch from crab fisheries from 1995/96 to 2022/23 and from groundfish fisheries from 1993/94 to 2022/23 are available. There is no assessment model for this stock. The standardized surveys of the Petrel Bank area conducted by ADF&G in 2006 and 2009 and the ADF&G-Industry Petrel Bank surveys conducted in 2001 were too limited in geographic scope and too infrequent for reliable estimation of abundance for the entire western Aleutian Islands area.

### ***Stock biomass and recruitment trends***

Estimates of stock biomass, recruitment trends, and current levels relative to virgin or historical levels are not available for this stock. The fishery has been closed since 2003/04 due to apparent poor recruitment. A 2009 survey conducted by ADF&G in the Petrel Bank area encountered an aging population of legal male crab occurring in a more limited area and at lower densities than were found in a 2006 survey and provided no expectations for recruitment. A test fishery conducted by a commercial vessel during October–December 2009 in the area west of Petrel Bank yielded only one legal male red king crab. A cooperative red king crab survey was performed by the Aleutian King Crab Research Foundation and ADF&G in the Adak area in 2015 and the Petrel Bank area in 2016, which averaged less than one crab per pot lift suggesting that the stock is in poor condition.

### ***Tier determination/Plan Team discussion and resulting OFL and ABC determination***

The CPT recommends that this stock be managed under Tier 5 for the 2023/24, 2024/25, and 2025/26 seasons. The CPT concurs with the assessment author's recommendation of an OFL based on the 1995/96–2007/08 average total catch following the recommendation of the SSC in June 2010 to set the time period for computing the OFL at 1995/96–2007/08. The CPT recommends an OFL for 2023/24, 2024/25, and 2025/26 of 56 t.

The CPT continues to have concerns regarding the depleted condition of this stock. Groundfish bycatch in recent years has accounted for the majority of the total catch. The CPT recommends an ABC of 14 t for 2023/24, 2024/25, and 2025/26 which is equivalent to a 75% buffer on OFL. The recommended ABC of

14 t is the same as that recommended by the CPT in 2017 and 2020. The ABC was lowered in 2017 because 1) the industry has not expressed interest in a small test fishery, and 2) because the stock is severely depressed as indicated by the most recent industry-cooperative surveys. This logic still applies for this assessment cycle. The total catch in 202/21, 2021/22, and 2022/23 was less than the OFL therefore overfishing did not occur.

*Status and catch specifications (t) for Western Aleutian Islands red king crab. Shaded values are new estimates or projections based on the current assessment. Other table entries are based on historical assessments and are not updated except for total and retained catch.*

<b>Fishing Year</b>	<b>MSST</b>	<b>Biomass (MMB)</b>	<b>TAC</b>	<b>Retained Catch</b>	<b>Total Catch</b>	<b>OFL</b>	<b>ABC</b>
2018/19			Closed	0	<1	56	14
2019/20			Closed	0	<1	56	14
2020/21			Closed	0	<1	56	14
2021/22			Closed	0	<1	56	14
2022/23			Closed	0	<1	56	14
2023/24						56	14
2024/25						56	14
2025/26						56	14

*Status and catch specifications (million lb) for Western Aleutian Islands red king crab. Shaded values are new estimates or projections based on the current assessment. Other table entries are based on historical assessments and are not updated except for total and retained catch.*

<b>Fishing Year</b>	<b>MSST</b>	<b>Biomass (MMB)</b>	<b>TAC</b>	<b>Retained Catch</b>	<b>Total Catch</b>	<b>OFL</b>	<b>ABC</b>
2018/19			Closed	0	0.00146	0.12387	0.07432
2019/20			Closed	0	0.00166	0.12387	0.03097
2020/21			Closed	0	0.00075	0.12387	0.03097
2021/22			Closed	0	0.00016	0.12387	0.03097
2022/23			Closed	0	0.00009	0.12387	0.03097
2023/24						0.12387	0.03097
2024/25						0.12387	0.03097
2025/26						0.12387	0.03097