**10 Western Aleutian Islands Red King Crab**

*Fishery information relative to OFL and ABC setting*

The domestic fishery has been prosecuted every season from 1960/61 to 1995/96. During the early years of the fishery through the late 1970s, most or all of the retained catch was harvested in the area between 172° W longitude and 179°15' W longitude. Peak harvest occurred during the 1964/65 season with a retained catch of 21.19 million lb. As the annual retained catch decreased into the mid-1970s and the early-1980s, the area west of 179°15' W longitude began to account for a larger portion of the retained catch. 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 GHL of 0.5 million lb in 2002/03 and 2003/04 in the Petrel Bank area. The fishery has been closed since 2003/04.

Retained catch from 1985/86 to 1994/95 averaged 0.94 million lb, but the retained catch during the 1995/96 season dropped to 0.04 million lb. Most of the catch since the 1990/91 season was harvested in the Petrel Bank area (between 179° W longitude and 179° E longitude) and the last two commercial fishery seasons were opened only in the Petrel Bank area with 0.51 million lb in 2002/03 and 0.48 million lb in 2003/04. Non-retained catch 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 bycatch mortality in the crab fisheries during the 1995/96 to 2018/19 seasons averaged 0.002 million lb in crab fisheries and 0.014 million lb in groundfish fisheries. Estimated annual total fishing mortality from 1995/96 to 2018/19 averaged 0.069 million lb. The average retained catch during that period was 0.053 million lb. 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 2007/08 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 2018/19 and from groundfish fisheries from 1993/94 to 2018/19 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 historic 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 ageing 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 Islands King Crab Foundation and ADF&G in the Petrel Bank area in November 2016 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 2017/18, 2018/19, and 2019/20 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 2017/18 to 2019/20 of 0.123867 million lb.

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 0.030967 million lb for 2017/18, 2018/19, and 2019/20 which is equivalent to a 75% buffer on OFL. The recommended ABC is less than that which was recommended by the SSC for 2012/13 – 2016/17 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 2016 Petrel survey (CPT minutes for May 2017).

Status and catch specifications (t) of Western Aleutian Islands red king crab

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Fishing**  **Year** | **MSST** | **Biomass (MMB)** | **TAC** | **Retained Catch** | **Total Catch** | **OFL** | **ABC** |
| 2013/14 | N/A | N/A | Closed | 0 | <1 | 56 | 34 |
| 2014/15 | N/A | N/A | Closed | 0 | <1 | 56 | 34 |
| 2015/16 | N/A | N/A | Closed | 0 | 1.3 | 56 | 34 |
| 2016/17 | N/A | N/A | Closed | 0 | <1 | 56 | 34 |
| 2017/18 | N/A | N/A | Closed | 0 | <1 | 56 | 14 |
| 2018/19 | N/A | N/A | Closed | 0 | <1 | 56 | 14 |
| 2019/20 | N/A | N/A |  |  |  | 56 | 14 |

Status and catch specifications (million lb) of Western Aleutian Islands red king crab

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Fishing** |  | **Biomass (MMB)** | **TAC** | **Retained Catch** | **Total Catch** | **OFL** | **ABC** |
| **Year** | **MSST** |
| 2013/14 | N/A | N/A | Closed | 0 | 0.00073 | 0.12387 | 0.07432 |
| 2014/15 | N/A | N/A | Closed | 0 | 0.00047 | 0.12387 | 0.07432 |
| 2015/16 | N/A | N/A | Closed | 0 | 0.00296 | 0.12387 | 0.07432 |
| 2016/17 | N/A | N/A | Closed | 0 | 0.00045 | 0.12387 | 0.07432 |
| 2017/18 | N/A | N/A | Closed | 0 | 0.00075 | 0.12387 | 0.03097 |
| 2018/19 | N/A | N/A | Closed | 0 | 0.00031 | 0.12387 | 0.03097 |
| 2019/20 | N/A | N/A |  |  |  | 0.12387 | 0.03097 |