



CPT comments

Should different mortality rates be applied if different gears (non-trawl) are included?

Why has groundfish pot bycatch increased recently (increased observer coverage, warmer water creating fishery overlap)?

What are the implications of the seasonality of groundfish fishing in relation to the sex of RKC bycatch (relative to mating and molting)?

Look at bycatch relative to TAC instead of ABC/OFL.

Evaluation of how bycatch is impacting the population.

Current limits are based on effective spawning biomass but crab bycatch estimates are summed irrespective of crab life stage.

Should the metric (effective spawning biomass) and values of current thresholds be examined?

Compare with recently-developed EFH models.

Table 4 Total BBRKC bycatch by gear and total in Zone 1 and total bycatch across the whole BBRKC stock area and within the RKCSA

Year	Hook and Line	Zone 1 Non-pelagic trawl	Pot	Pelagic trawl	Zone 1 total all gears	Total BBRKC stock area
2003	---	76,059	---	32	76,091	76,091
2004	12,545	77,582	181	16	90,323	90,481
2005	13,363	96,191	1,268		110,822	111,378
2006	6,720	74,392	2,029	25	83,167	84,298
2007	6,959	87,238	14,555	8	108,760	111,320
2008	5,576	85,541	14,028	40	105,185	107,324
2009	4,302	66,278	1,022	36	71,638	71,932
2010	1,531	55,093	804	21	57,449	57,863
2011	2,680	37,970	11,046		51,696	52,975
2012	3,456	26,993	5,188		35,638	36,361
2013	5,739	25,173	65,244		96,156	102,247
2014	7,105	27,965	80,896		115,966	119,950
2015	3,515	12,754	101,956		118,224	128,210

4 (supplement): Total bycatch by gear type in numbers of crab within the Red King Crab
from 2010-2015.

Year	RKCSA			
	Hook and Line	Non- pelagic trawl	Pot	Total
2010	38	15,867	0	15,905
2011	887	15,154	0	16,040
2012	419	7,831	0	8,250
2013	2,605	6,965	0	9,569
2014	1,926	12,693	8,120	22,739
2015	470	3,704	63,937	68,111

BBRKC PSC by gear and target¹ in numbers of crab. 2004-2015

	Target	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Pacific Cod		12,543	13,079	5,649	6,950	4,787	2,759	1,492	2,661	3,340	5,749	7,170
Sablefish								0	1			
Arrowtooth		54		796	45	21	24	115		1		
Flathead Sole		0	424	378	435	2,483		132	142		46	227
Other Flatfish			190		17			26	9	75		
Pacific Cod		731	1,741	3,796	1,579	1,218	869	364	2,166	341	374	489
Pollock - bottom		11		262		631	1,094	1,029	573	193	316	348
Rock Sole		44,887	45,528	55,682	73,913	45,063	47,343	36,476	29,531	22,585	17,355	24,363
Rockfish				2					59	45		87
Yellowfin Sole		31,731	47,033	13,568	11,385	36,011	16,905	17,071	5,480	4,111	6,947	2,913
Pacific Cod		210	1,561	3,039	16,903	16,010	1,289	974	12,253	5,476	71,277	84,257
Sablefish						65			3			
Pollock -bottom		6		1		6	8	4				
Pollock-midwater		10		25	8	40	30	16	4	3		7

these numbers differ slightly from totals posted under Table 4 due to the focus on categories for which there is a record of catch.

SSC comments

Council seeks additional development of this discussion paper to further address BBRKC PSC. C supports the CPT's request for the Council to develop a clear purpose and needs statement for future work and development of alternatives for analysis. Failing such a statement, beneficial work on this topic are somewhat doubtful. Specification of a purpose and needs statement, including a statement of objectives, will frame the appropriate analyses. For example, the Council should clarify whether the analyses should evaluate the efficacy in terms of both crab and their habitats as stated in Amendment 37.

Council motion (February 2017)

The Council requests the Crab Plan Team evaluate effects of total red king crab bycatch in the groundfish fisheries on MSST, OFL, ABC, and TAC and provide a summary of discussions during the next Crab Plan Team report to the Council.

Total bycatch mortality as reported in assessment as proportion of current year MMB, MSST, OFL and ABC

Year	% of B	% of MSST	% of OFL	% of ABC	% of TAC
2012/13	0.21%	0.46%	0.77%	0.85%	1.72%
2013/14	0.50%	1.06%	1.93%	2.14%	3.49%
2014/15	0.81%	1.70%	3.25%	3.61%	4.94%
2015/16	0.54%	1.16%	2.22%	2.47%	3.31%