

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON MINOR SHELF  
AND VERMILION ROCKFISH SOUTH OF 40° 10' N. LAT.

At the Council's September 2019 meeting, the California Department of Fish and Wildlife (CDFW) submitted a report indicating that for the 2021-2022 biennium, CDFW would evaluate the need for changes to the recreational season structure, and bag (and sub-bag) limits in various management areas in response to the harvest specifications for 2021-2022. A possible need to add a vermilion rockfish sub-bag limit as a catch control was identified at that time ([Agenda Item H.8.a, Supplemental CDFW Report 1, September 2019](#)).

At the Council's November 2019 meeting, the Groundfish Management Team (GMT) identified this item as part of the management measure range of alternatives as Management Measure #20, California Recreational, from the Action Item Checklist. At the Council's March 2020 meeting, the GMT further identified the vermilion sub-bag limit alternatives ranged from 10 to as low as two fish ([Agenda Item H.4.a., Supplemental GMT Presentation 1](#)).

CDFW is aware that there has been little visibility on this topic and is also mindful that vermilion rockfish are among the most important recreational groundfish target species for both the Commercial Passenger Fishing Vessel (CPFV) sector as well as the private vessel fleet. On March 5, 2020, CDFW hosted an evening session of the California Delegation, specifically to discuss and seek public input on the 2021-2022 management measure alternatives. CDFW is aware that a California recreational sub-bag limit for vermilion rockfish is a measure that would have consequences for both CPFV and private vessel fleets, and yet this particular item hasn't been a focal point of Council discussion within the subject of the 2021-2022 Harvest Specifications and Management Measures process. The information below was prepared for this special delegation session to aid stakeholders in formulating recommendations on this proposed management measure. CDFW is providing the information for the April 2020 briefing book, given a significant number of public requests for the information following the March meeting.

Based on preliminary input from the March 5 evening delegation session, the range of commercial trip limit proposals and projected impact values proposed in Table 7 and Table 9 below will differ from what will be presented in the forthcoming April GMT documents.

## Minor Shelf Rockfish Catch and Landings

Table 1. Annual catch (recreational and commercial) of vermilion rockfish, other minor shelf rockfish, and total minor shelf rockfish catch for the area south of 40°10' N. lat., compared to the minor shelf rockfish south 40°10' N. lat. ACL and OFL from 2008-2018. Commercial data do not include discard mortality estimates. Data for 2019 are preliminary and incomplete.

Year	Vermilion (mt)	Other Minor Shelf Spp (mt)	Total Catch (mt)	Shelf RF complex OFL (mt)	Shelf RF complex OY/ACL (mt)	Vermilion cont. to Shelf RF OFL	Vermilion cont. to Shelf RF ACL
2008	117.3	77.3	194.6	N/A	714.0	N/A	N/A
2009	132.9	120.0	252.8	N/A	714.0	N/A	N/A
2010	144.3	82.2	226.4	N/A	714.0	N/A	N/A
2011	209.5	130.2	339.7	2,238	714.0	308.4	N/A
2012	233.2	130.9	364.1	2,243	714.0	308.4	N/A
2013	231.1	151.0	382.0	1,913	714.0	269.3	N/A
2014	228.7	141.8	370.5	1,913	714.0	269.3	N/A
2015	331.1	203.4	534.5	1,918	668.0	269.3	224.6
2016	290.7	134.5	425.2	1,919	668.0	269.3	224.6
2017	334.3	206.9	541.2	1,917	1575.8	269.3	224.6
2018	328.9	192.7	521.6	1,919	1575.8	269.3	224.6
2019	462.5	252.8	715.3	1,919	1620.8	269.3	224.6

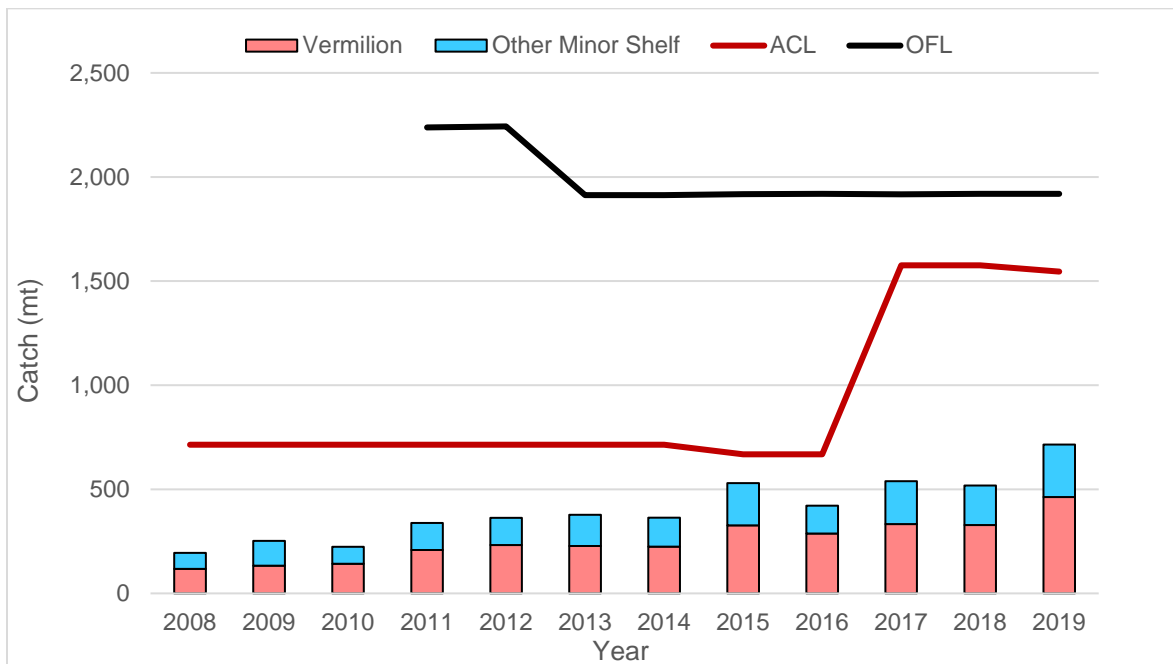


Figure 1. Annual catch (mt) of minor shelf rockfish south of 40°10' N. lat., shown by vermilion rockfish only, and all other species of minor shelf rockfish, compared to the minor shelf complex ACL and OFL, from 2008-2019; prior to 2011 no OFL was specified for the complex. Commercial data do not include discard mortality estimates. Data from 2019 are preliminary and incomplete.

Vermilion Rockfish Catch and Landings

Table 2. Recreational and commercial take of vermillion rockfish south of 40°10' N lat. compared to the vermillion ACL and OFL contributions to the minor shelf ACL and OFL from 2011-2019. Commercial data do not include discard mortality estimates. Data for 2019 are preliminary and incomplete.

Year	Recreational Catch Estimates (mt)	Commercial Landings (mt)	Total Catch (mt)	OFL Contribution (mt)	ACL Contribution (mt)
2011	193.2	16.3	209.5	308.4	N/A
2012	216.5	16.8	233.2	308.4	N/A
2013	208.2	22.9	231.1	269.3	N/A
2014	202.7	26.0	228.7	269.3	N/A
2015	292.5	38.6	331.1	269.3	224.6
2016	261.8	28.9	290.7	269.3	224.6
2017	288.3	45.9	334.3	269.3	224.6
2018	271.2	57.7	328.9	269.3	224.6
2019	408.6	53.8	462.5	269.3	224.6

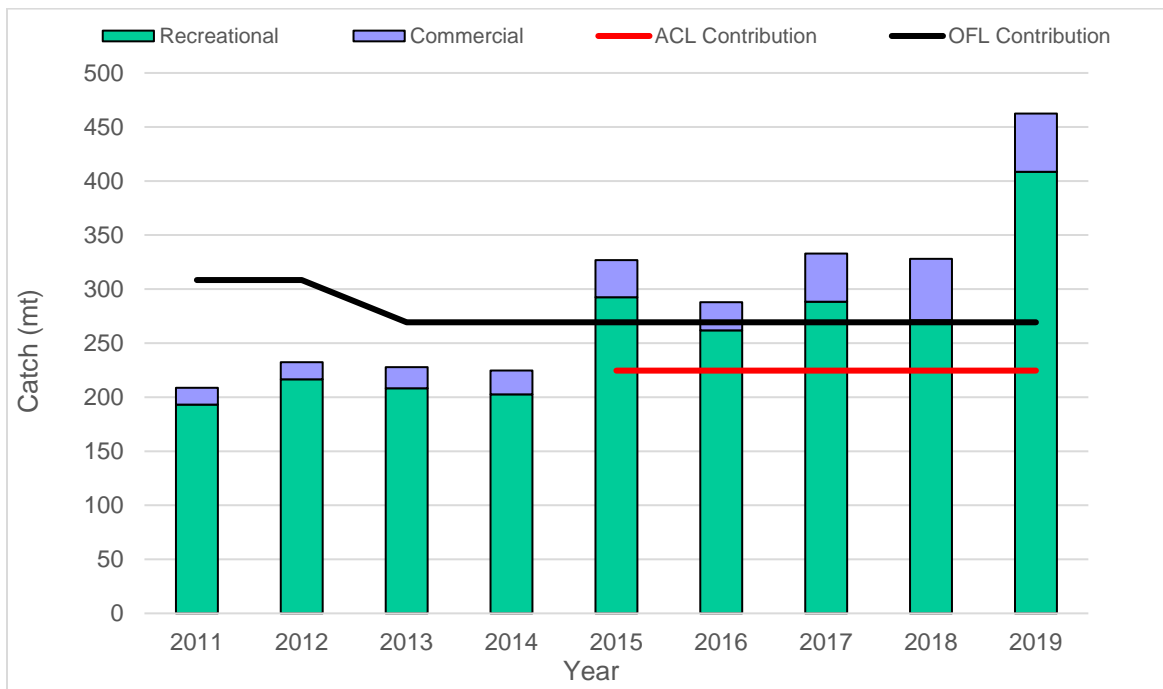


Figure 2. Recreational and commercial take (mt) of vermillion rockfish south of 40°10' N lat. compared to the ACL contribution from 2011-2019; prior to 2015 no ACL contribution was specified. Commercial data do not include discard mortality estimates. Data for 2019 are preliminary and incomplete.

Recreational Vermilion Catch

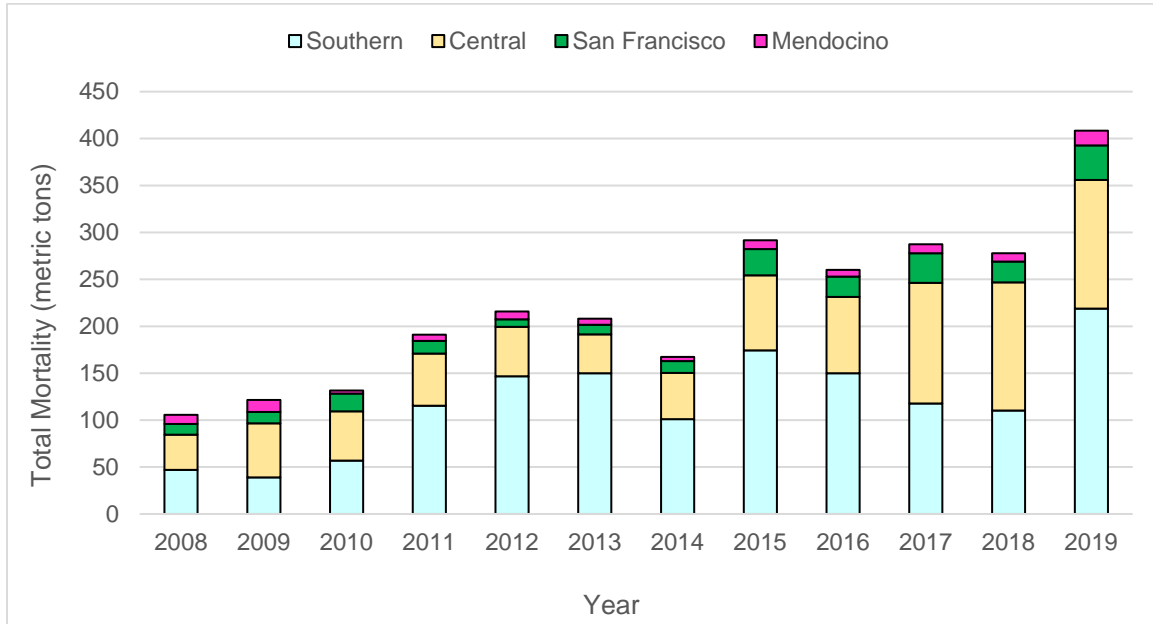


Figure 3. Recreational total mortality (mt) of vermilion rockfish south of 40°10' N. lat. by Management Area from 2008-2019. Data from RecFIN.

Table 3. Proportion of recreational vermilion rockfish total mortality south of 40°10' N. lat. by management area from 2015-2019. Data from RecFIN.

	2015	2016	2017	2018	2019
<b>Mendocino</b>	3%	3%	3%	3%	4%
<b>San Francisco</b>	10%	8%	11%	8%	9%
<b>Central</b>	27%	31%	45%	49%	34%
<b>Southern</b>	60%	58%	41%	40%	54%

Table 4. Proportion of recreational vermilion rockfish total mortality south of 40°10' N. lat. by major fishing mode. Not included are minor catches (<0.5mt) from beach/bank or manmade modes. Data from RecFIN.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Party/ Charter Boats</b>	43%	44%	58%	64%	65%	69%	62%	67%	66%	69%	66%	66%
<b>Private/ Rental Boats</b>	57%	56%	42%	36%	34%	31%	38%	33%	34%	31%	34%	34%

Table 5. Potential percent reduction to recreational catch of vermilion rockfish in each Management Area associated with a 2, 3 or 5 fish sub-bag limit within the 10-fish RCG daily bag limit. Percent reductions are taken from the current 10-fish bag limit and are not additive. Data informing analysis are from 2015-2019 and are from RecFIN.

	2-Fish Bag	3-Fish Bag	5-Fish Bag
<b>Northern MA</b>	-3.96%	-0.88%	no change
<b>Mendocino MA</b>	-5.09%	-1.77%	-0.05%
<b>San Francisco MA</b>	-6.01%	-1.29%	-0.06%
<b>Central MA</b>	-46.36%	-25.55%	-9.20%
<b>Southern MA</b>	-63.35%	-34.38%	-12.35%

Commercial Catch

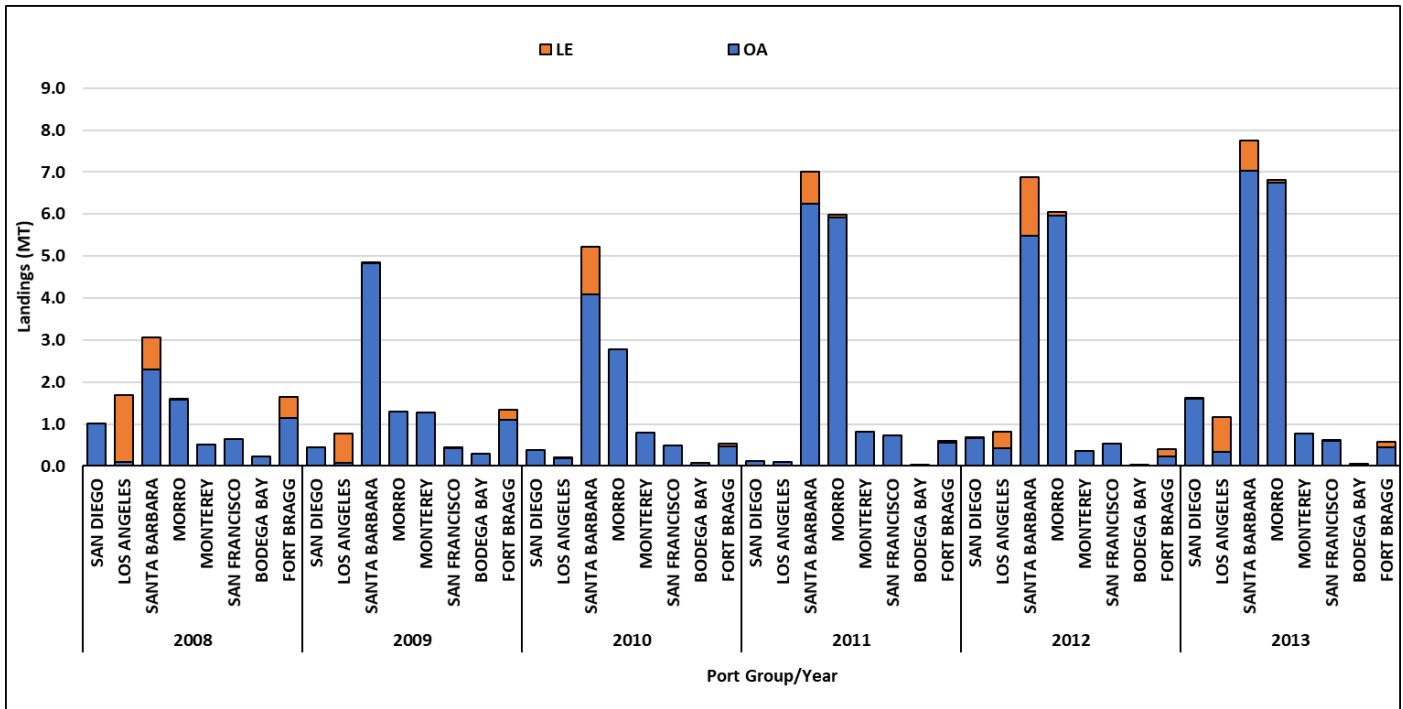


Figure 4. Limited entry and open access landings of vermillion into port groups south of 40°10' N lat., 2008-2013.

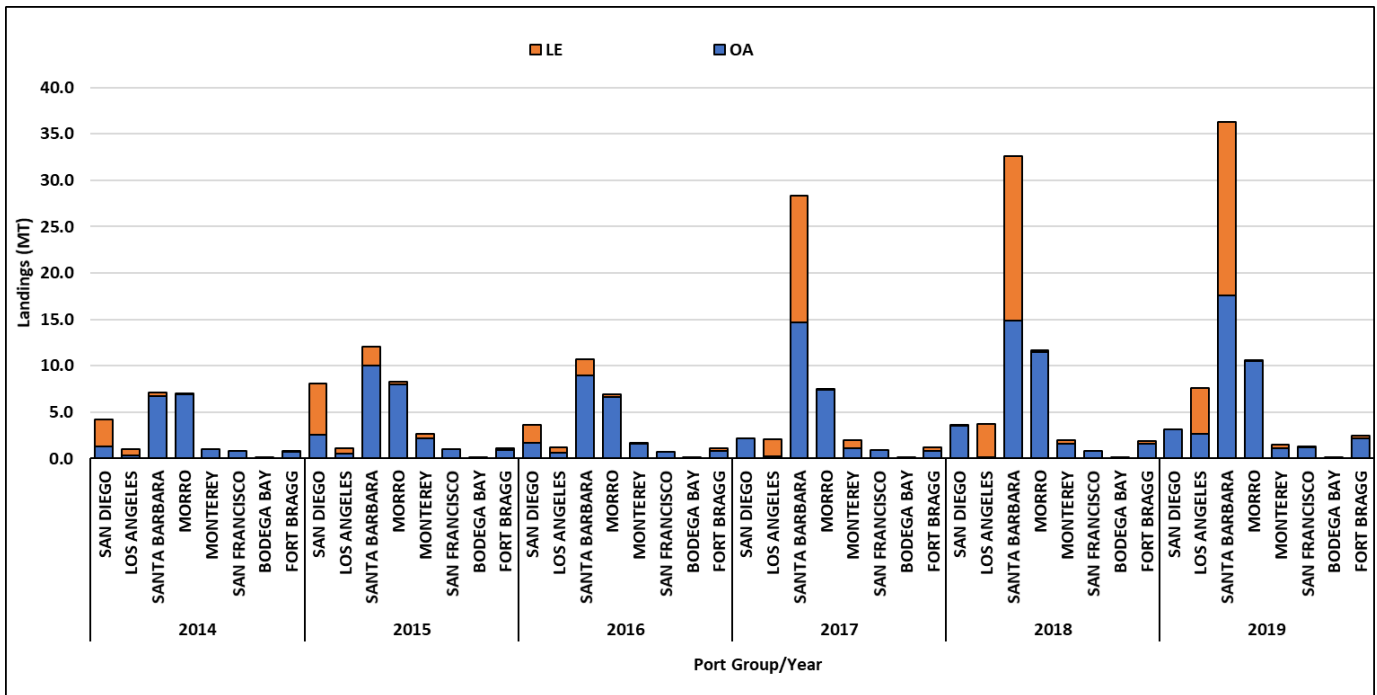


Figure 5. Limited entry and open access landings of vermillion into port groups south of 40°10' N lat., 2014-2019.

Table 6. Number of limited entry and open access vessels that landed vermillion south of 40°10' N lat., 2008-2019.

Year	South of 34° 27' N lat		40° 10' – 34° 27' N lat		South of 40° 10' N lat	
	OA	LE	OA	LE	OA	LE
2008	19	*	112	4	131	7
2009	26	*	104	*	129	4
2010	22	*	108	*	130	*
2011	18	*	136	*	153	5
2012	33	7	139	*	170	9
2013	26	10	163	5	188	15
2014	30	13	182	4	209	17
2015	43	12	232	10	273	21
2016	35	10	193	6	228	16
2017	48	12	176	7	224	19
2018	47	15	196	5	242	20
2019	47	16	179	11	224	26

\*Confidential

Table 7. Status quo (2019) and proposed shelf rockfish trip limits.

Option	Area	Trip limit	Projected mortality (mt)	Non-trawl projected mortality (mt) *	Non-trawl alloc.
LEFG 1 (SQ)	40° 10' to 34° 27' N. lat.	500 lbs / 2 months	1.7	710.67	1,154.75
	South of 34° 27' N. lat.	4,000 lbs / 2 months, closed Period 2	22.1		
OA 1 (SQ)	40° 10' to 34° 27' N. lat.	400 lbs / 2 months, closed Period 2	15.5		
	South of 34° 27' N. lat.	1,500 lbs / 2 months, closed Period 2	23.3		
<b>Total for Option 1</b>			<b>62.6</b>		
LEFG 2	South of 40° 10' N. lat.	8,000 lbs. / 2 months, of which no more than 3,000 lbs. may be vermillion	108.4	854.63	
OA 2	South of 40° 10' N. lat.	5,000 lbs. / 2 months, of which no more than 1,200 lbs. may be vermillion	98.1		
<b>Total for Option 2</b>			<b>206.5</b>		

Table 8. Option 2 projected mortality for Other Slope and Vermilion south of 40°10' N latitude.

Sector/Area	Other Slope (mt)	Vermilion (mt)
LE South of 40° 10' N. lat.	84.4	24.0
OA South 40° 10' N. lat.	61.7	36.5
<b>Total</b>	<b>146.1</b>	<b>60.4</b>

Table 9. Vermilion south of 40°10' N latitude projected mortality for lower than status quo trip limits.

<b>Sector</b>	<b>Trip limit</b>	<b>Landing projection (mt)</b>
LEFG	3,000 lbs / 2 months	<b>24.0</b>
	2,500 lbs. / 2 months	22.6
	2,200 lbs / 2 months	21.5
OA 3	1,200 lbs / 2 months	<b>36.5</b>
	1,000 lbs / 2 months	36.2