CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON 2020 GROUNDFISH HARVEST IN CALIFORNIA

The California Department of Fish and Wildlife (CDFW) provides the following informational report on harvest of select groundfish species for 2020. The following tables provide estimated harvest compared to federally designated harvest specifications (Table 1), estimated mortality of select species by month for the recreational sector through August (Table 2), and preliminary landings of select species by month for the commercial sector through October (Table 3). In 2021, CDFW will provide a final update on the status of the 2020 fishing season relative to sector allocations, Annual Catch Limits (ACLs), Annual Catch Targets (ACTs), and Harvest Guidelines (HGs) in effect for the 2019-2020 biennium.

Catch of vermilion/sunset rockfish complex south of 40°10' N lat. continues at the high levels seen in recent years, and already exceeds the contribution to the minor shelf complex (Table 1). Otherwise, inseason catch estimates for 2020 show all target and non-target groundfish species are within or below allowable harvest levels.

Table 1. Estimated take (mt) of select groundfish species in California through October 2020 compared to the corresponding 2020 harvest limits.

Constant Constant	Defense Deint Description	Estimated Take	Management Reference Points				
Species/Complex	Reference Point Description	$(\mathbf{mt})^{\mathbf{g}}$	Tracking Limit (mt)	% of Tracking Limit			
Rebuilding Stocks							
Yelloweye Rockfish	ACT (California Recreational)	1.3	9.1	14.3%			
Non-Rebuilding Stocks							
Black Rockfish (California)	ACL	98.3	326	30.2%			
Blackgill Rockfish S 40°10' N lat. ^a	HG	20.0	158.9	12.6%			
Boccacio S 40°10′ N lat.	Non-Trawl ACL	78.3	1197.8	6.5%			
Cabezon (California)	ACL	27.5	146	18.8%			
California Scorpionfish	ACL	88.3	307	28.8%			
Canary Rockfish	HG (Recreational)	32.8	119.7	27.4%			
Chilipepper Rockfish S 40°10' N lat.	ACL	16.0	2410	0.7%			
Cowcod S 40°10' N lat.	Non-Trawl Allocation	1.1	5.7	19.3%			
Kelp Greenling (California)	b	3.3	99.2	3.3%			
Lingcod S 40°10' N lat.	Non-Trawl Allocation	157.5	471.7	33.4%			
Nearshore Rockfish N 40°10' N lat.c	HG	43.3	79	54.8%			
Nearshore Rockfish 42°-40°10′ N lat.d	California Share of the ACL	19.2	38.6	49.7%			
Nearshore Rockfish S 40°10' N lat.d	ACL	296.3	1163	25.5%			
Shelf Rockfish N 40°10' N lat. ^e	Non-Trawl Allocation	7.6	784.5	1.0%			
Shelf Rockfish S 40°10' N lat. ^e	Non-Trawl Allocation	307.0	1357.3	22.6%			
Vermilion/Sunset Rockfish	ABC						
Complex Contribution	ABC	226.2	224.6	100.7%			
Slope Rockfish N 40°10' N lat.	Non-Trawl Allocation	2.3	313.7	0.7%			
Slope Rockfish S 40°10' N lat. ^f	Non-Trawl Allocation	3.0	267.4	1.1%			
Widow Rockfish	Non-Trawl Allocation	3.9	985.6	0.4%			

a\ Blackgill rockfish landings include both IFQ and non-IFQ sectors.

b\ Reference point denotes the California kelp greenling contribution to the Other Fish complex ACL.

 $c \\ \ \ \, \text{Includes California, Oregon, and Washington mortality estimates based on each state's definition of nearshore complex.} \\$

d\ Does not include black rockfish mortality estimates.

e\ Includes vermilion rockfish estimates. Does not include cowcod, bocaccio, yelloweye or canary rockfish estimates.

f\ Does not include blackgill rockfish estimates.

g\ Take includes total mortality estimates for the recreational fishery and landings without discard mortality estimates for the non-trawl commercial fishery (except for blackgill rockfish).

Table 2. Estimated take (mt) of select groundfish species in California recreational sector by month, through August 2020.

Species/Complex	Jan	Feb	Mar	Aprf	May ^f	Junf	Jul	Aug	Total
Rebuilding Stocks									
Yelloweye Rockfish	-	1	-	0.0	0.2	0.4	0.4	0.3	1.3
Non-Rebuilding Stocks									
Black Rockfish	0.0	0.2	0.3	0.2	5.4	9.5	21.7	24.4	61.7
Blackgill Rockfish S 40°10' N lat.	-	ı	-	-	-	-	-	-	-
Bocaccio	0.0	0.0	7.0	6.2	9.1	12.3	9.7	8.6	52.9
Cabezon	0.2	0.0	0.1	0.2	1.7	1.7	3.5	3.8	11.2
California Scorpionfish	4.0	5.2	2.0	2.5	11.5	18.8	24.2	18.4	86.6
Canary Rockfish	-	0.0	0.0	1.3	3.8	5.0	10.2	12.5	32.8
Chilipepper Rockfish S 40°10' N lat.	0.0	0.9	-	0.3	0.4	0.4	0.0	0.0	2.0
Cowcod S 40°10' N lat.	-	0.0	0.2	0.1	0.1	0.2	0.0	0.5	1.1
Kelp Greenling	0.2	0.0	-	0.0	0.5	0.5	0.4	0.4	2.0
Lingcod S 40°10' N lat.	0.1	0.1	2.6	5.1	19.1	25.3	40.1	42.0	134.4
Nearshore Rockfish N 40°10' N lat. ^a	0.0	0.2	1.1	0.6	3.6	3.7	8.9	8.9	27.0
Nearshore Rockfish 42°- 40°10' N. lat. ^b	0.0	-	0.0	-	1.1	1.3	4.1	6.7	13.2
Nearshore Rockfish S 40°10' N lat. ^b	0.2	0.2	9.0	12.0	26.6	47.0	56.5	59.8	211.3
Shelf Rockfish N 40°10' N lat.c	-	ı	-	-	0.5	0.5	1.6	2.4	5.0
Shelf Rockfish S 40° 10' N lat.d	0.2	0.2	20.5	17.7	31.8	47.5	53.0	56.2	227.1
Vermilion/Sunset Rockfish Complex	0.1	0.1	14.8	10.4	22.0	31.2	44.4	47.3	170.3
Slope Rockfish N 40°10' N lat.	-	1	-	-	-	-	-	-	-
Slope Rockfish S 40°10' N lat. ^e	-	ı	0.0	0.0	0.0	0.0	0.1	-	0.1
Widow Rockfish	-	-	0.1	0.3	0.5	1.0	0.3	0.2	2.4

Nearshore Rockfish includes treefish, black and yellow, china, gopher, grass, kelp, blue, brown, calico, copper, olive and quillback rockfish.

Shelf Rockfish includes bronzespotted, chameleon, flag, freckled, greenblotched, greenspotted, greenstriped, halfbanded, harlequin, honeycomb, mexican, pink, pinkrose, pygmy, redstripe, rosethorn, rosy, shortbelly, silvergrey, speckled, squarespot, starry, stripetail, swordspine, tiger, vermilion and yellowtail rockfish.

Slope Rockfish includes aurora, bank, darkblotched, Pacific ocean perch, redbanded, rougheye, sharpchin, shortraker, splitnose and yellowmouth rockfish.

Note: 0.0 indicates trace mortality; a dash (-) indicates no mortality; italics indicates proxy average value rather than monthly estimate. Data are preliminary.

- a\ Includes California, Oregon, and Washington mortality estimates. Each state defines the nearshore complex differently. Using the nearshore rockfish list above as the default: California and Washington make no modifications, while Oregon removes blue rockfish.
- b\ Does not include black rockfish mortality estimates.
- c\ Does not include north of 40°10' N lat. yellowtail rockfish estimates.
- d\ Includes vermilion rockfish estimates. Does not include south of 40°10′ N lat. estimates for cowcod, bocaccio and chilipepper rockfish.
- e\ Does not include blackgill rockfish estimates.
- f\ Values for April, May and June are proxy average values, derived by reducing the 2017-2019 monthly average by a proportion accounting for reduced catch and effort related to COVID-19 stay-at-home orders, ocean access point closures, and reduced angler capacity on CPFVs. These values are not catch estimates and were not calculated using standard CRFS estimation methodologies.

Table 3. Estimated take (mt) of select groundfish species in California commercial sector by month, through October 2020.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Total
Rebuilding Stocks											
Yelloweye Rockfish	-	-	-	-	-	-	-	-	-	-	-
Non-Rebuilding Stocks											
Black Rockfish	0.1	1.2	3.0	5.3	4.3	5.6	4.4	5.3	6.2	1.2	36.6
Blackgill Rockfish S 40°10' N lat. ^a	1.8	0.6	1.8	2.0	1.5	1.0	2.0	3.0	4.1	2.2	20.0
Bocaccio S 40°10' N lat.	1.4	2.6	1.8	0.9	3.8	1.4	2.4	3.0	4.6	3.4	25.4
Cabezon	0.8	2.2	0.0	0.1	1.8	1.9	2.5	2.0	2.7	2.3	16.3
California Scorpionfish	0.2	0.2	-	-	0.3	0.2	0.3	0.2	0.1	0.2	1.7
Canary Rockfish	0.2	1.2	0.2	0.2	1.4	1.7	2.2	2.6	2.7	1.6	14.0
Chilipepper Rockfish S 40°10′ N lat.	0.4	1.6	2.0	1.0	2.0	0.6	1.3	0.9	2.0	2.2	14.0
Cowcod S 40°10' N lat.	-	-	-	-	-	-	-	-	-	-	-
Kelp Greenling (California)	0.1	0.3	0.0	-	0.2	0.2	0.2	0.1	0.2	0.1	1.3
Lingcod S 40°10' N lat.	1.6	4.1	0.0	-	3.0	1.9	3.1	2.8	3.0	3.6	23.1
Nearshore Rockfish N 40°10' N lat. ^b	0.1	1.3	1.5	1.9	2.4	2.4	2.2	1.7	2.4	0.4	16.3
Nearshore Rockfish 42°-40°10' N lat. ^c	0.1	0.6	0.6	0.9	1.0	1.0	0.4	0.6	0.7	0.1	6.0
Nearshore Rockfish S 40°10' N lat. ^c	4.5	11.5	-	-	8.0	10.2	14.4	12.6	12.5	11.2	85.0
Shelf Rockfish N 40°10' N lat.d	0.0	0.1	0.2	0.2	0.4	0.2	0.5	0.6	0.3	0.1	2.6
Shelf Rockfish S 40° 10' N lat. ^e	5.9	11.6	0.0	0.1	9.8	7.8	8.6	11.8	13.2	10.2	79.9
Vermilion/Sunset Rockfish Complex Contribution	5.0	10.6	0.0	0.0	8.0	5.3	5.7	8.4	7.9	5.1	55.9
Slope Rockfish N 40°10' N lat.	-	0.2	0.2	0.1	0.2	0.4	0.7	0.2	0.2	0.1	2.3
Slope Rockfish S 40°10' N lat. ^f	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.2	2.9
Widow Rockfish	0.2	0.3	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	1.5

Nearshore rockfish includes treefish, black and yellow, china, gopher, grass, kelp, blue, brown, calico, copper, olive and quillback rockfish.

Shelf rockfish includes bronzespotted, chameleon, flag, freckled, greenblotched, greenspotted, greenstriped, halfbanded, harlequin, honeycomb, mexican, pink, pinkrose, pygmy, redstripe, rosethorn, rosy, shortbelly, silvergrey, speckled, squarespot, starry, stripetail, swordspine, tiger, vermilion and yellowtail rockfish.

Slope rockfish includes aurora, bank, darkblotched, Pacific ocean perch, redbanded, rougheye, sharpchin, shortraker, splitnose and yellowmouth rockfish.

Note: Landings include non-trawl, non-IFQ fixed-gears for limited entry and open access sectors. Data are preliminary and mortality estimates do not include discard mortality. 0.0 indicates trace mortality; a dash (-) indicates no mortality.

- a\ Blackgill rockfish landings include both IFQ and non-IFQ sectors.
- b\ Includes California, Oregon, and Washington mortality estimates. Each state defines the nearshore complex differently. Using the nearshore rockfish list above as the default: California and Washington make no modifications, while Oregon removes blue rockfish.
- c\ Does not include black rockfish mortality estimates.
- d\ Does not include north of 40°10' N lat. yellowtail rockfish estimates.
- e\ Includes vermilion rockfish estimates. Does not include cowcod, bocaccio, yelloweye or canary rockfish estimates.
- f\ Does not include blackgill rockfish estimates.