

Fishery Conservation and Management

Pt. 660. Subt. G, Table 2c

TABLE 2c TO PART 660, SUBPART G—2010, AND BEYOND, OPEN ACCESS AND LIMITED ENTRY ALLOCATIONS BY SPECIES OR SPECIES GROUP (WEIGHTS IN METRIC TONS)

Table 2c. To Part 660, Subpart G—2010, and beyond, Open Access and Limited Entry Allocations by Species or Species Group. (Weights in Metric Tons)

Species	Commercial Total Catch HGs	Commercial Total Catch HGs			
		Limited Entry		Open Access	
		Mt	%	Mt	%
Lingcod N of 42° N. lat.	--	--	81.0	--	19.0
S of 42° N. lat.					
Sablefish kk/ N of 36° N. lat.	6,471	5,863	90.6	608	9.4
Widow ll/	--	--	97.0	--	3.0
Canary ll/	42.3	--	87.7	--	12.3
Chilipepper	2,447	1,363	55.7	1,084	44.3
Bocaccio ll/	206.4	--	55.7	--	44.3
Yellowtail	-	--	91.7	--	8.3
Shortspine thornyhead N of 34°27' N. lat.	1,591	1,586	99.7	5	0.27
Minor Rockfish N of 40°10' N. lat.	--	--	91.7	--	8.3
S of 40°10' N. lat.	--	--	55.7	--	44.3

^{a/} ABCs apply only to the U.S. portion of the Vancouver area.

^{b/} Optimum Yields (OYs) and Harvest Guidelines (HG) are specified as total catch values. A harvest guideline is a specified harvest target and not a quota. The use of this term may differ from the use of similar terms in state regulation.

^{c/} Lingcod—A coastwide lingcod stock assessment was prepared in 2005. The lingcod biomass was estimated to be at 64 percent of its unfished biomass coastwide in 2005. The ABC of 4,829 mt was calculated using an F_{MSY} proxy of $F_{45\%}$. Because the stock is above $B_{40\%}$ coastwide, the coastwide OY was set equal to the ABC. The tribal harvest guideline is 250 mt.

^{d/} "Other species"—these species are neither common nor important to the commercial and recreational fisheries in the areas footnoted. Accordingly, these species are included in the harvest guidelines of "other fish", "other rockfish" or "remaining rockfish".

^{e/} Pacific Cod—The 3,200 mt ABC for the Vancouver-Columbia area is based on historical landings data. The 1,600 mt OY is the ABC reduced by 50 percent as a precautionary adjustment. A tribal harvest

guideline of 400 mt is deducted from the OY resulting in a commercial OY of 1,200 mt.

^{f/} Pacific whiting—The most recent stock assessment was prepared in January 2010. The stock assessment base model estimated the Pacific whiting biomass to be at 31 percent (50th percentile estimate of depletion) of its unfished biomass in 2010. The U.S.-Canada coastwide ABC is 455,550 mt, the U.S. share of the ABC is 336,560 mt (73.88 percent of the coastwide ABC). The U.S.-Canada coastwide Pacific whiting OY is 262,500 mt, with a corresponding U.S. OY of 193,935 mt. The tribal allocation is 49,939 mt. The amount estimated to be taken as research catch and in non-groundfish fisheries is 3,000 mt. The commercial OY is 140,996 mt. Each sector receives a portion of the commercial OY, with the catcher/processors getting 34 percent (47,939 mt), motherships getting 24 percent (33,839 mt), and the shore-based sector getting 42 percent (59,218 mt). No more than 2,961 mt (5 percent of the shore-based allocation) may be taken in the fishery south of 42° N. lat. prior to the start of the primary season for the shorebased fishery north of 42° N. lat.

^{g/} Sablefish—A coastwide sablefish stock assessment was prepared in 2007. The coastwide sablefish biomass was estimated

to be at 38.3 percent of its unfished biomass in 2007. The coastwide ABC of 9,217 mt was based on the new stock assessment with a F_{MSY} proxy of $F_{45\%}$. The 40–10 harvest policy was applied to the ABC then apportioned between the northern and southern areas with 72 percent going to the area north of 36° N. lat. and 28 percent going to the area south of 36° N. lat. The OY for the area north of 36° N. lat. is 6,471 mt. When establishing the OY for the area south of 36° N. lat. a 50 percent reduction was made resulting in a Conception area OY of 1,258 mt. The Coastwide OY of 7,729 mt is the sum of the northern and southern area OYs. The tribal allocation for the area north of 36° N. lat. is 647 mt (10 percent of the OY north of 36° N. lat.), which is further reduced by 1.6 percent (10 mt) to account for discard mortality. The tribal landed catch value is 637 mt.

^{lv} Cabezon south of 42° N. lat. was assessed in 2005. The Cabezon stock was estimated to be at 40 percent of its unfished biomass north of 34° 27' N. lat. and 28 percent of its unfished biomass south of 34° 27' N. lat. in 2005. The ABC of 111 mt is based on the 2005 stock assessment with a harvest rate proxy of $F_{45\%}$. The OY of 79 mt is consistent with the application of a 60–20 harvest rate policy specified in the California Nearshore Fishery Management Plan.

^{lv} Dover sole north of 34° 27' N. lat. was assessed in 2005. The Dover sole biomass was estimated to be at 59.8 percent of its unfished biomass in 2005 and was projected to be increasing. The ABC of 28,582 mt is based on the results of the 2005 assessment with an F_{MSY} proxy of $F_{40\%}$. Because the stock is above $B_{40\%}$ coastwide, the OY could be set equal to the ABC. The OY of 16,500 mt is less than the ABC. The OY is set at the MSY harvest level which is considerably larger than the coastwide catches in any recent years.

^{lv} A coastwide English sole stock assessment was prepared in 2005 and updated in 2007. The stock was estimated to be at 116 percent of its unfished biomass in 2007. The stock biomass is believed to be declining. The ABC of 9,745 mt is based on the results of the 2007 assessment update with an F_{MSY} proxy of $F_{40\%}$. Because the stock is above $B_{40\%}$, the OY was set equal to the ABC.

^{lv} A petrale sole stock assessment was prepared for 2005. In 2005 the petrale sole stock was estimated to be at 32 percent of its unfished biomass coastwide (34 percent in the northern assessment area and 29 percent in the southern assessment area). The 2010 ABC of 2,751 mt is based on the 2005 assessment with a $F_{40\%}$ F_{MSY} proxy. To derive the 2010 OY, the 40–10 harvest policy was applied to the ABC for both the northern and southern assessment areas. As a precautionary measure, an additional 25 percent reduction was made in the OY contribution for the southern area due to assessment uncertainty. As another precautionary meas-

ure, an additional 1,193 mt reduction was made in the coastwide OY due to preliminary results of the more pessimistic 2009 stock assessment. The coastwide OY is 1,200 mt in 2010.

^{lv} Arrowtooth flounder was assessed in 2007 and was estimated to be at 79 percent of its unfished biomass in 2007. Because the stock is above $B_{40\%}$, the OY is set equal to the ABC.

^{lv} Starry Flounder was assessed for the first time in 2005 and was estimated to be above 40 percent of its unfished biomass in 2005. However, the stock was projected to decline below 40 percent in both the northern and southern areas after 2008. For 2010, the coastwide ABC of 1,578 mt is based on the 2005 assessment with a F_{MSY} proxy of $F_{40\%}$. To derive the OY of 1,077 mt, the 40–10 harvest policy was applied to the ABC for both the northern and southern assessment areas then an additional 25 percent reduction was made due to assessment uncertainty.

^{lv} “Other flatfish” are those flatfish species that do not have individual ABC/OYs and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole. The other flatfish ABC is based on historical catch levels. The ABC of 6,731 mt is based on the highest landings for sanddabs (1995) and rex sole (1982) for the 1981–2003 period and on the average landings from the 1994–1998 period for the remaining other flatfish species. The OY of 4,884 mt is based on the ABC with a 25 percent precautionary adjustment for sanddabs and rex sole and a 50 percent precautionary adjustment for the remaining species.

^{lv} A POP stock assessment was prepared in 2005 and was updated in 2007. The stock assessment update estimated the stock to be at 27.5 percent of its unfished biomass in 2007. The ABC of 1,173 mt for the Vancouver and Columbia areas is based on the 2007 stock assessment update with an F_{MSY} proxy of $F_{50\%}$. The OY of 200 mt is based on a rebuilding plan with a target year to rebuild of 2017 and an SPR harvest rate of 86.4 percent. The OY is reduced by 2.0 mt for the amount anticipated to be taken during research activity and 0.14 mt for the amount expected to be taken during EFP fishing.

^{lv} Shortbelly rockfish remains an unexploited stock and is difficult to assess quantitatively. To understand the potential environmental determinants of fluctuations in the recruitment and abundance of an unexploited rockfish population in the California Current ecosystem, a non-quantitative assessment was conducted in 2007. The results of the assessment indicated the shortbelly stock was healthy with an estimated spawning stock biomass at 67 percent of its unfished biomass in 2005. The ABC and OY are being set at 6,950 mt which is 50 percent of the 2008 ABC and OY values. The stock is expected to remain at its current

equilibrium with these harvest specifications.

^q Widow rockfish was assessed in 2005, and an update was prepared in 2007. The stock assessment update estimated the stock to be at 36.2 percent of its unfished biomass in 2006. The ABC of 6,937 mt is based on the stock assessment update with an $F_{50\%}$ F_{MSY} proxy. The OY of 509 mt is based on a rebuilding plan with a target year to rebuild of 2015 and an SPR harvest rate of 95 percent. To derive the commercial harvest guideline of 447.4 mt, the OY is reduced by 1.1 mt for the amount anticipated to be taken during research activity, 45.5 mt for the tribal set-aside, 7.2 mt the amount estimated to be taken in the recreational fisheries, 0.4 mt for the amount expected to be taken incidentally in non-groundfish fisheries, and 7.4 mt for EFP fishing activities.

^r Canary rockfish—A canary rockfish stock assessment was completed in 2007 and the stock was estimated to be at 32.7 percent of its unfished biomass coastwide in 2007. The coastwide ABC of 940 mt is based on a F_{MSY} proxy of $F_{50\%}$. The OY of 105 mt is based on a rebuilding plan with a target year to rebuild of 2021 and a SPR harvest rate of 88.7 percent. To derive the commercial harvest guideline of 42.3 mt, the OY is reduced by 8.0 mt for the amount anticipated to be taken during research activity, 7.3 mt the tribal set-aside, 43.8 mt the amount estimated to be taken in the recreational fisheries, 0.9 mt for the amount expected to be taken incidentally in non-groundfish fisheries, and 2.7 mt for the amount expected to be taken during EFP fishing. The following harvest guidelines are being specified for catch sharing in 2009: 19.7 mt for limited entry Non-Whiting Trawl, 18.0 mt for limited entry Whiting Trawl, 2.2 mt for limited entry fixed gear, 2.5 mt for directed open access, 4.9 mt for Washington recreational, 16.0 mt for Oregon recreational, and 22.9 mt for California recreational.

^s Chilipepper rockfish was assessed in 2007 and the stock was estimated to be at 71 percent of its unfished biomass coastwide in 2007. The ABC of 2,576 mt is based on the new assessment with an F_{MSY} proxy of $F_{50\%}$. Because the unfished biomass is estimated to be above 40 percent of the unfished biomass, the default OY could be set equal to the ABC. However, the OY of 2,447 mt was the ABC reduced by 5 percent as a precautionary measure. Open access is allocated 44.3 percent (1,084 mt) of the commercial HG and limited entry is allocated 55.7 percent (1,363 mt) of the commercial HG.

^t A bocaccio stock assessment and a rebuilding analysis were prepared in 2007. The bocaccio stock was estimated to be at 13.8 percent of its unfished biomass in 2007. The ABC of 793 mt for the Monterey-Conception area is based on the new stock assessment with an F_{MSY} proxy of $F_{50\%}$. The OY of 288 is

based on a rebuilding plan with a target year to rebuild of 2026 and a SPR harvest rate of 77.7 percent. To derive the commercial harvest guideline of 206.4 mt, the OY is reduced by 2.0 mt for the amount anticipated to be taken during research activity, 67.3 mt for the amount estimated to be taken in the recreational fisheries, 1.3 mt for the amount expected to be taken incidentally in non-groundfish fisheries, and 11.0 mt for the amount expected to be taken during EFP fishing.

^u Splitnose rockfish—The ABC is 615 mt in the Monterey-Conception area. The 461 mt OY for the area reflects a 25 percent precautionary adjustment because of the less rigorous stock assessment for this stock. In the north (Vancouver, Columbia and Eureka areas), splitnose is included within the minor slope rockfish OY. Because the harvest assumptions used to forecast future harvest were likely overestimates, carrying the previously used ABCs and OYs forward into 2010 was considered to be conservative and based on the best available data.

^v Yellowtail rockfish—A yellowtail rockfish stock assessment was prepared in 2005 for the Vancouver, Columbia, Eureka areas. Yellowtail rockfish was estimated to be above 40 percent of its unfished biomass in 2005. The ABC of 4,562 mt is based on the 2005 stock assessment with the F_{MSY} proxy of $F_{50\%}$. The OY of 4,562 mt was set equal to the ABC, because the stock is above the precautionary threshold of $B_{40\%}$.

^w Shortspine thornyhead was assessed in 2005 and the stock was estimated to be at 63 percent of its unfished biomass in 2005. The ABC of 2,411 mt is based on a $F_{50\%}$ F_{MSY} proxy. For that portion of the stock (66 percent of the biomass) north of Point Conception (34°27' N. lat.), the OY of 1,591 mt was set at equal to the ABC because the stock is estimated to be above the precautionary threshold. For that portion of the stock south of 34°27' N. lat. (34 percent of the biomass), the OY of 410 mt was the portion of the ABC for the area reduced by 50 percent as a precautionary adjustment due to the short duration and amount of survey data for that area.

^x Longspine thornyhead was assessed coastwide in 2005 and the stock was estimated to be at 71 percent of its unfished biomass in 2005. The coastwide ABC of 3,671 mt is based on a $F_{50\%}$ F_{MSY} proxy. The OY is set equal to the ABC because the stock is above the precautionary threshold. Separate OYs are being established for the areas north and south of 34°27' N. lat. (Point Conception). The OY of 2,175 mt for that portion of the stock in the northern area (79 percent) was the ABC reduced by 25 percent as a precautionary adjustment. For that portion of the stock in the southern area (21 percent), the OY of 385 mt was the portion of the ABC

for the area reduced by 50 percent as a precautionary adjustment due to the short duration and amount of survey data for that area.

^{y/} Cowcod in the Conception area was assessed in 2007 and the stock was estimated to be between 3.4 to 16.3 percent of its unfished biomass. The ABC for the Monterey and Conception areas is 14 mt and is based on the 2007 rebuilding analysis in which the Conception area stock assessment projection was doubled to account for both areas. A single OY of 4 mt is being set for both areas. The OY of 4 mt is based on the need to conform the 2010 cowcod harvest specifications to the Court's Order in *Natural Resources Defense Council v. Locke*, Civil Action No. C 01–0421 JL. The amount anticipated to be taken during scientific research activity is 0.2 mt and the amount expected to be taken during EFP activity is 0.24 mt.

^{z/} Darkblotched rockfish was assessed in 2007 and a rebuilding analysis was prepared. The new stock assessment estimated the stock to be at 22.4 percent of its unfished biomass in 2007. The ABC is projected to be 440 mt and is based on the 2007 stock assessment with an F_{MSY} proxy of $F_{50\%}$. The OY of 330 mt is based on the need to conform the 2010 darkblotched rockfish harvest specifications to the Court's Order in *Natural Resources Defense Council v. Locke*, Civil Action No. C 01–0421 JL. The amount anticipated to be taken during scientific research activity is 2.0 mt and the amount anticipated to be taken during EFP activity is 0.95 mt.

^{aa/} Yelloweye rockfish was fully assessed in 2006 and an assessment update was completed in 2007. The 2007 stock assessment update estimated the spawning stock biomass in 2006 to be at 14 percent of its unfished biomass coastwide. The 32 mt coastwide ABC was derived from the base model in the new stock assessment with an F_{MSY} proxy of $F_{50\%}$. The 14 mt OY is based on the need to conform the 2010 yelloweye rockfish harvest specifications to the Court's Order in *Natural Resources Defense Council v. Locke*, Civil Action No. C 01–0421 JL. The amount anticipated to be taken during scientific research activity is 1.3 mt, the amount anticipated to be taken in the tribal fisheries is 2.3 mt, and the amount anticipated to be taken incidentally in non-groundfish fisheries is 0.3 mt. The catch sharing harvest guidelines for yelloweye rockfish in 2010 are: Limited entry non-whiting trawl 0.3 mt, limited entry whiting 0.0 mt, limited entry fixed gear 0.8 mt, directed open access 1.2 mt, Washington recreational 2.6 mt, Oregon recreational 2.3 mt, California recreational 2.7 mt, and 0.2 mt for exempted fishing.

^{bb/} California Scorpionfish south of 34°27' N. lat. (point Conception) was assessed in 2005 and was estimated to be above 40 percent of its unfished biomass in 2005. The ABC of 155 mt is based on the new assessment with a

harvest rate proxy of $F_{50\%}$. Because the stock is above $B_{40\%}$ coastwide, the OY is set equal to the ABC.

^{cc/} New assessments were prepared for black rockfish south of 45°56.00 N. lat. (Cape Falcon, Oregon) and for black rockfish north of Cape Falcon. The ABC for the area north of 46°16' N. lat. (Washington) is 464 mt (97 percent) of the 478 mt ABC contribution from the northern assessment area. The ABC for the area south of 46°16' N. lat. (Oregon and California) is 1,317 mt which is the sum of a contribution of 14 mt (3 percent) from the northern area assessment, and 1,303 mt from the southern area assessment. The ABCs were derived using an F_{MSY} proxy of $F_{50\%}$. Because both portions of the stock are above 40 percent, the OYs could be set equal to the ABCs. For the area north of 46°16' N. lat., the OY of 490 mt is set equal to the ABC. The following tribal harvest guidelines are being set: 30,000 lb (13.6 mt) north of Cape Alava, WA (48°09.50' N. lat.) and 10,000 lb (4.5 mt) between Destruction Island, WA (47°40' N. lat.) and Leadbetter Point, WA (46°38.17' N. lat.) For the area south of 46°16' N. lat., the OY of 1,000 mt is a constant harvest level. The black rockfish OY in the area south of 46°16' N. lat., is subdivided with separate HGs being set for the area north of 42° N. lat. (580 mt/58 percent) and for the area south of 42° N. lat. (420 mt/42 percent).

^{dd/} Minor rockfish north includes the "remaining rockfish" and "other rockfish" categories in the Vancouver, Columbia, and Eureka areas combined. These species include "remaining rockfish", which generally includes species that have been assessed by less rigorous methods than stock assessments, and "other rockfish", which includes species that do not have quantifiable stock assessments. Blue rockfish has been removed from the "other rockfish" and added to the remaining rockfish. The ABC of 3,678 mt is the sum of the individual "remaining rockfish" ABCs plus the "other rockfish" ABCs. The remaining rockfish ABCs continue to be reduced by 25 percent ($F = 0.75M$) as a precautionary adjustment. To obtain the total catch OY of 2,283 mt, the remaining rockfish ABCs were further reduced by 25 percent and other rockfish ABCs were reduced by 50 percent. This was a precautionary measure to address limited stock assessment information.

^{ee/} Minor rockfish south includes the "remaining rockfish" and "other rockfish" categories in the Monterey and Conception areas combined. These species include "remaining rockfish" which generally includes species that have been assessed by less rigorous methods than stock assessment, and "other rockfish" which includes species that do not have quantifiable stock assessments. Blue rockfish has been removed from the "other rockfish" and added to the remaining rockfish. The ABC of 3,382 mt is the sum of

the individual “remaining rockfish” ABCs plus the “other rockfish” ABCs. The remaining rockfish ABCs continue to be reduced by 25 percent ($F = 0.75M$) as a precautionary adjustment. The remaining rockfish ABCs are further reduced by 25 percent, with the exception of blackgill rockfish (see footnote gg). The other rockfish ABCs were reduced by 50 percent. This was a precautionary measure due to limited stock assessment information. The resulting minor rockfish OY is 1,990 mt.

^{fv} Bank rockfish—The ABC is 350 mt which is based on a 2000 stock assessment for the Monterey and Conception areas. This stock contributes 263 mt towards the minor rockfish OY in the south.

^{gv} Blackgill rockfish in the Monterey and Conception areas was assessed in 2005 and is estimated to be at 49.9 percent of its unfished biomass in 2008. The ABC of 292 mt for the Monterey and Conception areas is based on the 2005 stock assessment with an F_{MSY} proxy of $F_{50\%}$ and is the two year average ABC for the 2007 and 2008 periods. This stock contributes 292 mt towards minor rockfish south.

^{hv} “Other rockfish” includes rockfish species listed in 50 CFR 660.302. A new stock assessment was conducted for blue rockfish in 2007. As a result of the new stock assessment, the blue rockfish contribution to the other rockfish group, of 30 mt in the north and 232 mt in the south, are removed. A new contribution of 28 mt contribution in the north and 202 mt contribution in the south is added to the remaining rockfish. The ABC for the remaining species is based on historical data

from a 1996 review landings and includes an estimate of recreational landings. Most of these species have never been assessed quantitatively.

^{iv} Longnose skate was fully assessed in 2006 and an assessment update was completed in 2007. The ABC of 3,428 is based on the 2007 with an F_{MSY} proxy of $F_{45\%}$. Longnose skate was previously managed as part of the Other Fish complex. The 2009 OY of 1,349 mt is a precautionary OY based on historical total catch increased by 50 percent.

^{iv} “Other fish” includes sharks, skates, rays, ratfish, morids, grenadiers, kelp greenling, and other groundfish species noted above in footnote d/. The longnose skate contribution is being removed from this complex.

^{kv} Sablefish allocation north of 36° N. lat.—The limited entry allocation is further divided with 58 percent allocated to the trawl fishery and 42 percent allocated to the fixed-gear fishery.

^{lv} Specific open access/limited entry allocations specified in the FMP have been suspended during the rebuilding period as necessary to meet the overall rebuilding target while allowing harvest of healthy stocks.

[74 FR 9923, Mar. 6, 2009, as amended at 74 FR 65483, Dec. 10, 2009; 75 FR 8825, Feb. 26, 2010; 75 FR 23626, May 4, 2010; 75 FR 38033, July 1, 2010; 75 FR 39180, July 8, 2010]

EFFECTIVE DATE NOTE: At 75 FR 60995, Oct. 1, 2010, subpart G was amended by removing Tables 1a through 2c and Tables 3 (North) through 5 (South) to part 660, subpart G, effective Nov. 1, 2010.