

Final Council acceptable biological catch (ABC) and optimum yield (OY) recommendations for 2001 for the Washington, Oregon, and California region by management area (metric tons). Page 1 of 3.

ROUNDFISH	Final Council ABC Recommendations for 2001					Total for Areas Noted	Final 2001 OYs (Total Catch)	2000 OYs
	Vancouver a/	Columbia	Eureka	Monterey	Conception			
LINGCOD b/	610			509		1,119 b/	611	378
Pacific cod	3,200			c/		3,200	NA c/	
Whiting d/			190,400 d/			190,400 d/	190,400	232,000
Sablefish e/		7,661 e/				7,661 e/	6,895 e/	7,919
Conception area f/					425	425	212	
ROCKFISH								
PACIFIC OCEAN PERCH		1,541 g/				1,541 g/	303 g/	270
Shortbelly			13,900 h/			13,900	13,900 h/	13,900
WIDOW			3,727 i/			3,727 i/	2,300 i/	4,333
CANARY j/			228 j/			228 j/	93 j/	200
Chilipepper				2,700 k/		2,700 k/	2,000 k/	2,000
BOCACCIO l/				122		122 l/	100 l/	100
Splitnose m/				615		615	461 m/	615
Yellowtail n/		3,146				3,146 n/	3,146 n/	3,539
Thornyheads								
Shortspine o/			757 o/			757 o/	689 o/	970
Conception area					123	123	62 o/	
Longspine p/			2,461 p/			2,461 p/	2,461	4,102
Conception area					390	390	195 p/	
COWCOD					2.4	2.4	2.4 q/	<5
				19		19	2.4	
DARKBLOTCHED r/			302 - 349			302-349	130	-256
Minor Rockfish								
Minor Rockfish N s/		4,823 k/				4,823 s/	3,137 s/	3814
Minor Rockfish S t/				3,556		3,556 t/	2,043	1899
Remaining rockfish u/		2,755		854 u/				
bank		c/		350		350 v/	NA	
black w/		1,115				1,115	NA	
blackgill x/		c/		343		343 x/	NA	
bocaccio		318				318	NA	
chilipepper		32				32		
redstripe		576		c/		576	NA	
sharpchin		307		45		352	NA	
silvergrey		38		c/		38	NA	
splitnose		242		c/		242	NA	
yelloweye		29		c/		29	NA	
yellowmouth		99		c/		99	NA	
yellowtail				116		116	NA	
Other rockfish y/		2,068 y/		2,702 y/			NA	

FLATFISH	Final Council ABC Recommendations						Final 2001 OYs	2000 OYs
	Vancouver	Columbia	Eureka	Monterey	Conception	Total for areas noted	Total Catch	
Dover sole z/	7,151				1,053	8,204 z/	7,677	9,426
English sole	2,000		1,100			3,100	NA	
Petrale sole	1,262 aa/		500	800	200	2,762	NA	
Arrowtooth flounder	5,800					5,800	NA	
Other flatfish	700	3,000	1,700	1,800	500	7,700	NA	
OTHER FISH bb/	2,500	7,000	1,200	2,000	2,000	14,700	NA	

- a/ ABC applies to the U.S. portion of the Vancouver area, except as noted. For lingcod, the U.S. ABC is set at 44% of the total for the area.
- b/ Lingcod - designated as overfished in 1999; the new coastwide assessment calculates separate ABCs for the northern (Vancouver-Columbia) and southern (Eureka-Monterey-Conception) stocks based on $F_{45\%}$. The OY (611 mt) is the sum of the yields (307 mt plus 304 mt) from the two new assessments associated with a constant exploitation rate where 60% of the simulated runs rebuilt in 9 years.
- c/ These species are neither common nor important to commercial and recreational fisheries in the areas footnoted. Accordingly, for convenience, Pacific cod in the areas footnoted is included in the non-numerical OY for "other fish." Rockfish species are included in either the "other rockfish" or "remaining rockfish" category for the areas footnoted only.
- d/ An update of the 1998 whiting assessment confirmed the stock has declined as expected, and the calculated ABC for the combined U.S. and Canadian area is 238,000 mt. The U.S. OY (80%) is 190,400 mt.
- e/ Sablefish - ABC (7,661 mt) is based on $F_{45\%}$, and the preliminary total catch OY (6,895 mt) is based on application of the 40-10 adjustment for stocks below 40% of unfished biomass. The stock is estimated to be at 37% of its unfished level, but there is substantial uncertainty in the biomass estimate; incoming recruitment appears poor. As in the past, this OY applies north of 36°N latitude.
- f/ The sablefish ABC and OY for the Conception area (south of 36°N latitude) are based on historical landings. OY is 50% of ABC, in line with the risk averse policy. There are no limited entry and open access allocations for the Conception area at this time.
- g/ Pacific Ocean perch - the ABC for this overfished stock is based on the 2000 assessment for Vancouver and Columbia (1,523 mt, at F_{MSY}), plus 18 mt for Eureka. The 2001 OY set in the rebuilding plan is 303 mt for the Vancouver-Columbia-Eureka area.
- h/ Shortbelly rockfish remains an unexploited stock and is difficult to assess quantitatively. NMFS recruitment surveys indicate poor recruitment in most years since 1989, indicating low recent productivity and a naturally declining population. The GMT recommends ABC and OY remain at 13,900 mt.
- i/ Widow rockfish - the 2000 assessment indicates the stock has declined to about 24% of its unfished reproductive potential and is overfished. The 3,727 mt ABC is based on the $F_{50\%}$ harvest rate. The final OY is the average of 2,864 mt (based on $F_{50\%}$ and the 40-10 policy) and 1,775 mt (based on $F_{65\%}$ and the 40-10 policy), rounded to 2,300 mt.
- j/ Two canary rockfish assessments in 1999 addressed the northern and southern portions of the stock and estimated current abundance to be between about 7% of unfished in the south to 20% of unfished in the north. The coastwide ABC (228 mt) is based on $F_{50\%}$. The final OY (93 mt) is based on the rebuilding analysis, the sum of 73 mt in the north and 20 mt in the south. The sum includes 5 mt for research; thus the catch limit is 88 mt for non-research activities.
- k/ Chilipepper rockfish - The ABC (2,700 mt) for the Monterey and Conception areas is based on the 1998 assessment and application of the $F_{50\%}$ harvest rate. The stock is estimated to be above the 40% precautionary threshold so the default OY would equal ABC. OY is set at 2,000 mt, in part to avoid increased bycatch of bocaccio. (The northern remaining rockfish ABC in 2000 includes 32 mt of chilipepper for the Eureka area.)
- l/ Bocaccio in the south is overfished; the preliminary ABC (122 mt) is based on $F_{50\%}$. The proposed OY is unchanged from 2000, which was set based on the rebuilding plan.
- m/ Splitnose rockfish (often called "rosefish") - ABC (615 mt) is a reduction from 2000 based on the revised F_{MSY} harvest rate policy. Consistent with the Council's precautionary policy, the final OY recommendation (461 mt) reflects a 25% reduction from ABC, because of the less-rigorous assessment method used for this stock.
- n/ Yellowtail rockfish - ABC (3,146 mt) applies to the Eureka, Columbia, and U.S. portion of the Vancouver areas. The stock is estimated to be at 63% of its pristine level, and under the default policy, OY is equal to ABC. The stock is expected to continue declining in the near future due to poor recruitment in recent years. Discard of yellowtail rockfish in the at-sea fisheries for Pacific whiting will be taken into account when setting the landed catch equivalent.

- j/ Shortspine thornyhead - The assessment addressed the area north of 36° N latitude, which is the northern boundary of the Conception area. Therefore, this ABC and OY apply only to that area. The ABC recommendation (757 mt) is based on a synthesis of two stock assessments prepared in 1998 and application of the $F_{50\%}$ harvest rate. The stock size was estimated to be 32% of the unfishable abundance in 1999. The OY (689 mt) is based on $F_{50\%}$ and the 40-10 policy. The landed catch equivalent will reflect a reduction for discard. A separate ABC for the part of the Conception area north of Point Conception is based on historical landed catch (123 mt); the OY, which is landed catch, is 50% of ABC, based on the risk averse policy. A total catch OY (78 mt) could be computed by adding an assumed discard of 30%. There is no ABC or OY for the southern Conception area.
- p/ Longspine thornyhead - the ABC (2,461 mt) north of the Conception area is based on the average of the 3 year individual ABCs at $F_{50\%}$. The stock is estimated to be above the 40% precautionary threshold. Application of the new discard adjustment results in landed catch OY of 2,067 mt. A separate ABC for the Conception area north of Point Conception is based on historical average landed catch (390 mt). The OY, which is landed catch, is 50% of ABC, based on the risk averse policy. A total catch OY (235 mt) could be computed by adding an assumed discard of 17%. There is no ABC or OY for the southern Conception area.
- q/ Cowcod - the 1999 assessment of the Conception area indicates this stock is overfished, with abundance below 10% of the unfishable level. The ABC and OY for the Conception area (5 mt and 2.4 mt, respectively) are based on the assessment and rebuilding analysis. The Monterey area ABC (19 mt) is based on average landings from 1983-1997, and the OY is 2.4 mt.
- r/ Darkblotched rockfish - The 2000 assessment indicates the stock is overfished, with current biomass about 22% of the initial biomass. The lower ABC (302 mt) is based on their assumption 10% of the red rockfish catch in the Russian fishery was darkblotched rockfish; the upper ABC (349 mt) assumes 0%. The OY (130 mt) is the constant annual catch that would rebuild the stock in 10 years, based on the assumption that 5% of the catch was darkblotched.
- s/ Minor rockfish (north) - this category includes the "Remaining Rockfish" and "Other Rockfish" categories in the U.S., Vancouver, Columbia, and Eureka areas combined. The GMT's final ABC recommendations have been adjusted to comply with the revised harvest rate policy. The total catch OY is the sum of 75% of the "remaining rockfish" ABCs plus 50% of the "other rockfish" ABCs in these three areas. The expected commercial landed catch target in 2001 will reflect recreational harvest and may also reflect a 16% discard adjustment for the limited entry fishery.
- t/ Minor rockfish (south) - this category includes the "Remaining Rockfish" and "Other Rockfish" categories in the Monterey and Conception areas combined. The GMT's final ABC recommendations have been adjusted to comply with the revised harvest rate policy. The total catch OY is the sum of 75% of the "remaining rockfish" ABCs plus 50% of the "other rockfish" ABCs in these three areas. The expected commercial landed catch target in 2001 will reflect recreational harvest and may also reflect a 16% discard adjustment for the limited entry fishery.
- u/ Remaining rockfish includes all rockfish species below in the table except the "Other Rockfish" category.
- v/ Bank rockfish - the ABC is 350 mt. This species will contribute 200 mt (75% of ABC, minus 25% as a precautionary adjustment) to the 2001 minor rockfish OY in the south.
- w/ Black rockfish - this 1,115 mt is the sum of the ABC calculated for the assessment area (615 mt) plus the average catch in the unassessed area (500 mt). This stock contributes 865 mt towards the minor rockfish OY in the north: 615 mt for the assessed area and 50% of the unassessed area ABC.
- x/ Blackgill rockfish - the 1998 stock assessment estimates the Conception area stock to be at about 51% of pristine levels. The 268 mt ABC is based on $F_{50\%}$; 75 mt was added for the Monterey area.
- y/ Other rockfish includes rockfish species of the genus *Sebastes* not identified above in this table. The ABC recommendation is the same as 2000; it is based on the 1996 *Sebastes* complex review of commercial landings and includes an estimate of recreational landings. These species have never been formally assessed.
- z/ The 1997 Dover sole assessment evaluated the resource north of 36° N latitude as a unit and provided ABCs for landed catch based on the both the $F_{35\%}$ and $F_{40\%}$ harvest rates. The ABC is based on $F_{40\%}$ ABC. The Conception area Dover sole ABC was at the level established in the original FMP, which was based on average landings. Its contribution to OY is reduced by 50%, consistent with the new harvest policy. The ABCs represent total catch, and were converted by estimating that 5% of the total catch is discarded. Therefore, the coastwide OY of 7,677 mt for total catch has a landed catch equivalent of 7,293 mt.
- aa/ Petrale sole - the 1998 assessment of petrale sole in the Vancouver and Columbia areas provided ABC values based on both $F_{35\%}$ and $F_{40\%}$. The final ABC is based on $F_{40\%}$.
- bb/ Includes sharks, skates, rays, rattfish, morids, grenadiers, and other groundfish species noted above in c/.