

2001 Specifications of Acceptable Biological Catch (ABC), Optimum Yields (OYs) and Limited Entry and Open Access Allocations, by International North Pacific Fisheries Commission (INPFC) Areas (weights in metric tons).

Species	ACCEPTABLE BIOLOGICAL CATCH (ABC)						OY (Total Catch)	Commercial OY (Total Catch)	Allocations Total Catch			
	Vancouver ^{a/}	Columbia	Eureka	Monterey	Conception	Total Catch			Limited Entry		Open Access	
									mt	%	mt	%
ROUND FISH												
Lingcod ^{b/}		610			509	1,119	611	251	203	81	48	19.0
Pacific Cod		3,200			c/	3,200	N/A	3,200	--	--	--	--
Pacific Whiting ^{d/}						190,400	190,400	162,900	--	--	--	--
Sablefish ^{e/} (north of 36°)				7,661	--	7,661	6,895	6,181	5,600	90.6	581	9.4
Sablefish ^{f/} (south of 36°)		--				425	425	212	--	--	--	--
FLAT FISH												
Dover Sole ^{g/}				7,151	1,053	8,204	7,677	7,610	--	--	--	--
English Sole		2,000			1,100	3,100	N/A	--	--	--	--	--
Petrale Sole ^{h/}		1,262	500	800	200	2,762	N/A	--	--	--	--	--
Arrowtooth Flounder					5,800	5,800	N/A	--	--	--	--	--
Other Flatfish	700	3,000	1,700	1,800	500	7,700	N/A	--	--	--	--	--

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									mt	%	mt	%	
ROCKFISH													
Pacific Ocean Perch ^{i/}	1,541			--		1,541	303	303	--	--	--	--	
Shortbelly ^{j/}					13,900	13,900	13,900	13,900	--	--	--	--	
Widow ^{k/}					3,727	3,727	2,300	2,260	2,192	97.0	68	3.0	
Canary ^{l/}					228	228	93	44	39	87.7	5	12.3	
Chilipepper ^{m/}	c/				2,700	2,700	2,000	1,985	1,106	55.7	87 9	44.3	
Bocaccio ^{n/}	c/				122	122	100	52	29	55.7	23	44.3	
Splitnose ^{o/}	c/				615	615	461	461	--	--	--	--	
Yellowtail ^{p/}	3,146			c/		3,146	3,146	3,086	2,830	91.7	25 6	8.3	
Shortspine Thornyhead North of 36 ^{oq/tr/}	757				--	757	689	685	683	99.7	2	0.27	
South of 36 ^{os/}	--				123	123	62	62	62	99.7	0	0.27	
Longspine Thornyhead North of 36 ^{oq/t/}	2,461				--	2,461	2,461	2,453	--	--	--	--	
South of 36 ^{ou/}	--				390	390	195	195	--	--	--	--	
Cowcod ^{v/}	c/		19			19	2.4	0					
	c/				2.4	2.4	2.4	0					

Darkblotched ^{w/}	302-349	302-349	130	130	127	97.7	3	2.3
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Species	ACCEPTABLE BIOLOGICAL CATCH (ABC)						OY (Total Catch)	Commercial OY (Total Catch)	Allocations Total Catch			
	Vancouver	Columbia	Eureka	Monterey	Conception	Total Catch			Limited Entry		Open Access	
									mt	%	mt	%
Minor Rockfish North ^{x/}			4,823	--		4,823	3,137	2,492	2,254	90.4	238	9.6
Minor Rockfish South ^{y/}		--			3,556	3,556	2,040	1,090	597	55.7	493	44.3
REMAINING ROCKFISH			2,755		854	--	--	--	--	--	--	--
Bank ^{z/}		c/			350	350	--	--	--	--	--	--
Black ^{aa/}			1,115			1,115	--	--	--	--	--	--
Blackgill ^{bb/}		c/			343		--	--	--	--	--	--
Bocaccio - North			318			318	--	--	--	--	--	--
Chilipepper-North			32			32	--	--	--	--	--	--
Redstripe			576	c/		576	--	--	--	--	--	--
Sharpchin			307		45	352	--	--	--	--	--	--
Silvergrey			38	c/		38	--	--	--	--	--	--
Splitnose			242	c/		242	--	--	--	--	--	--
Yelloweye			29	c/		29	--	--	--	--	--	--
Yellowmouth			99	c/		99	--	--	--	--	--	--
Yellowtail-South					116	116	--	--	--	--	--	--
Other Rockfish ^{cc/}			2,068		2,702	--	--	--	--	--	--	--

OTHER FISH ^{dd/}	2,500	7,000	1,200	2,000	2,000	14,700	N/A	-	--	--	--	-
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OYs for Minor Rockfish by Depth Sub-groups (Weights in Metric Tons).

Species	Total Catch ABC	OY (Total Catch)			Allocations (Total Catch)			
		Total Catch OY	Recreational Estimate	Commercial OY for Minor Rockfish and for Depth Sub-groups	Limited Entry		Open Access	
					mt	Percent	mt	Percent
Minor Rockfish North ^{x/}	4,823	3,137	645	2,492	2,254	90.4	238	9.6
Nearshore		987	575	412	222	N/A	190	N/A
Shelf		990	70	920	880	N/A	40	N/A
Slope		1,160		1,160	1,152	N/A	8	N/A
Minor Rockfish South ^{y/}	3,556	2,040	950	1,090	597	55.7	493	44.3
Nearshore		662	550	112	34	N/A	78	N/A
Shelf		739	400	339	129	N/A	210	N/A
Slope		639		639	434	N/A	195	N/A

- a/ ABC applies to the U.S. portion of the Vancouver area, except as noted under individual species.
- b/ Lingcod was designated as overfished in 1999 when the biomass was believed to be at 10% of the unfished biomass. A coastwide assessment was conducted in 2000 and confirmed that the stock is overfished coastwide. Separate ABCs were calculated for the northern (Vancouver-Columbia) and southern (Eureka-Monterey-Conception) areas based on $F_{45\%}$ F_{MSY} proxy. The stock assessment included parts of Canadian waters; however, the U.S. portion of the ABC for the Vancouver area was set at 44% of the total for that area. The total catch OY of 611 mt is the sum of the yield for the northern (307 mt) and the southern (304 mt) assessments where a constant exploitation rate that results in a 60% probability of rebuilding the stock to F_{MSY} within 9 years was used. The total catch OY is reduced by 360 mt for the amount that is estimated to be taken by the recreational fishery, resulting in a commercial OY of 251 mt. Tribal vessels land a small amount of lingcod, but do not have a specific allocation at this time. No discards are assumed.
- c/ "Other Species", these are neither common nor important to the commercial and recreational fisheries in the areas footnoted. Accordingly, Pacific cod is included in the non-commercial OY of "other fish" and rockfish species are included in either the "other rockfish" or "remaining rockfish" for the areas footnoted only.
- d/ Whiting is believed to be at less than 40% of its unfished biomass. The 1998 assessment was updated for 2000 using limited new data. The U.S.-Canada ABC (266,000 mt) is based on the updated assessment with the application of an F_{MSY} proxy of $F_{40\%}$. Because the biomass is estimated to be within the precautionary zone, the 40-10 default harvest policy was applied reducing the coastwide ABC to 238,000 mt. The whiting U.S. ABC is 80% (190,400 mt) of the 238,000 mt. The U.S. total catch OY was then set equal to the U.S. ABC. The commercial OY for whiting is 162,900 mt (the 190,400 mt OY minus the 27,500 mt tribal allocation), and is allocated 42% to the shore-based sector, 24% to the mothership sector, and 34% to the catcher-processor sector. Discards of whiting are estimated from observer data and counted towards the OY inseason.
- e/ Sablefish north of 36° N latitude is believed to be at 37% of its unfished biomass. The 7,661 ABC for the area north of 36° N latitude is based on a $F_{45\%}$ F_{MSY} proxy. The total catch OY (6,895 mt) is based on the application of the 40-10 harvest rate policy, because the biomass is estimated to be in the precautionary zone. The total catch OY is reduced by 690 mt for the tribal set aside and by 24 mt for the compensation to vessels that conducted resource surveys. The remaining 6,181 is the commercial total catch OY. The open access allocation of 9.4% of the commercial OY results in a total catch OY of 581 mt. The limited entry allocation of 90.6% of the commercial OY results in a total catch OY of 5,600 mt. The limited entry OY is further divided with 58% (3,248 mt) allocated to the trawl fishery and 42% (2,352 mt) allocated to the nontrawl fishery. For the first time in 2000, discard rates will be applied by sector to obtain landed catch value.
- f/ Sablefish in the Conception area has an ABC (425 mt) based on historical landings. To address uncertainty in stock assessment due to limited information, the ABC was reduced by 50% to obtain the OY (212 mt). There are no limited entry or open access allocations in the Conception area at this time.

- g/ Dover sole north of 36° N latitude was assessed as a unit in 1997 and provided an ABC (7,151 mt) for landed catch based on a $F_{40\%} F_{MSY}$ proxy. The Conception area ABC (1,053 mt) is at the level established in the original FMP, and was based on average landings. To address uncertainty in stock assessment due to limited information, the Conception area landed catch ABC was reduced by 50% to obtain the landed catch value. The ABC in this table represents total catch and was determined by estimating that 5% of the total catch was discarded to obtain the landed catch. Therefore, the coastwide ABC and total catch OY is 7,677 mt. The OY is further reduced by 67 mt as compensation to vessels that conducted resource surveys, resulting in a commercial OY of 7,610 mt.
- h/ Petrale sole was believed to be at 42% of its unfished biomass following a 1999 assessment. For 2000, the final ABC for the Vancouver-Columbia area (1,262 mt) is based on a $F_{40\%} F_{MSY}$ proxy. The ABCs for the Eureka, Monterey, and Conception areas (1,500 mt) continues at the same level as 2000.
- i/ Pacific ocean perch (POP) was designated as overfished in 1999. The ABC (1541 mt) is based on the 2000 assessment for the Vancouver-Columbia area (1,523 mt at $F_{50\%} F_{MSY}$ proxy), plus 18 mt for the Eureka area. The 2001 OY of 303 mt for the Vancouver-Columbia-Eureka area was set in the rebuilding plan. Discards are assumed to be 16% for a landed catch value of 255 mt.
- j/ Shortbelly rockfish remains an unexploited stock and is difficult to assess quantitatively. The 1989 assessment provided 2 alternative yield calculations of 13,900 mt and 47,000 mt. NMFS surveys indicate poor recruitment in most years since 1989, indicating low recent productivity and a naturally declining population in spite of low fishing pressure. The ABC and OY therefore are reduced to 13,900 mt, the low end of the range in the assessment.
- k/ Widow rockfish is believed to be at 24% of its unfished biomass indicating that its overfished at this time. The ABC (3,727 mt) is based on the 2000 assessment with a $F_{50\%} F_{MSY}$ proxy. Two OY options were presented to the Council ranging from 2,864 (based on $F_{50\%} F_{MSY}$ proxy and the 40-10 harvest policy) to 1,775 mt (based on $F_{65\%} F_{MSY}$ proxy and the 40-10 harvest policy). The Council adopted the average of the option range resulting in a total catch OY of 2,300 mt. The OY is reduced by 40 mt for the amount estimated to be taken as recreational catch resulting in a commercial OY of 2,260 mt. The open access allocation (68 mt) is 3% of the commercial OY. The limited entry allocation (2,192 mt) is 97% of the commercial OY. The limited entry allocation is further reduced by 250 mt for anticipated bycatch in the offshore whiting fishery, and the remainder (1,942 mt) is reduced by 16% (311 mt) to account for trip limit induced discards, resulting in a landed catch equivalent for the limited entry fishery of 1,631 mt (excluding harvest in the whiting fishery).
- l/ Canary rockfish is believed to be at 22% of its unfished biomass in the north (north of Cape Blanco) and 8% of its unfished biomass in the south (south of Cape Blanco). Canary rockfish was declared overfished in 2000. In 1999, two assessments addressed the northern and southern portions of the stock. Although each area was assessed separately, there is no definitive evidence of separate northern and southern stocks. The coastwide ABC (228 mt) is based on a F_{MSY} proxy of $F_{50\%}$. The coastwide OY (93 mt) is based on the rebuilding plan and is the sum of 73 mt for the northern area, plus 20 mt for the southern area. The OY is reduced by 44 mt for the estimated recreational catch and 5 mt for research surveys, resulting in a commercial OY of 44 mt. Tribal vessels land a small amount of canary rockfish, but do not have a specific allocation at this time. The open access allocation (5 mt) is 12.3% of the commercial OY. The limited entry allocation (39 mt) is 87.7% of the commercial OY. The limited entry allocation is further reduced by 3 mt for anticipated bycatch in the offshore whiting fishery, and the remainder (36 mt) is reduced by 16% (6 mt) to account for trip-limit-induced discards, resulting in a landed catch equivalent for the limited entry fishery of 30 mt (excluding harvest in the whiting fishery). However, the specific open access/limited entry allocation has been suspended during the rebuilding period as necessary to meet the overall rebuilding target while allowing harvest of healthy stocks.
- m/ Chilipepper rockfish - the ABC (2,700 mt) for the Monterey-Conception area is based on the 1998 stock assessment with the application of $F_{50\%} F_{MSY}$ proxy. Because the biomass is believed to be above 40% of unfished, plus the default OY could be set equal to the ABC. However, the OY is set at 2,000 mt, near the recent average landed catch, to discourage effort on chilipepper which is known to have bycatch of bocaccio rockfish. The OY is reduced by 15 mt for the amount estimated to be taken in the recreational fishery, resulting in a commercial OY of 1,985 mt. Open access is allocated 44.3% (879 mt) of the commercial OY and limited entry is allocated 55.7% (1,106 mt) of the commercial OY. The assumed discard in the limited entry fishery is 16%, resulting in a landed catch value of 929 mt.
- n/ Bocaccio rockfish is believed to be at 2% of its unfished biomass and was designated as overfished in 1999. The ABC of 122 mt is based on a $F_{50\%} F_{MSY}$ proxy. The OY (100 mt) is based on the rebuilding plan which is designed to rebuild the stock to MSY in 38 years. The OY is reduced by 48 mt for the amount estimated to be taken as recreational harvest, resulting in a 52 mt commercial OY. No discard amount is assumed within this OY.
- o/ Splitnose rockfish (also called "rosefish") - The 2001 ABC of 615 mt in the southern area (Monterey-Conception) is based on the F_{MSY} proxy of $F_{50\%}$. The 461 mt OY for the southern area reflects a 25% precautionary adjustment, because of the less rigorous assessment for this stock. In the north, splitnose is included in the minor rockfish OY. The assumed discard is 16% for a landed catch value of 387 mt.

- p/ Yellowtail rockfish is believed to be at 63% of its unfished biomass. The ABC of 3,146 mt is based on a 2000 stock assessment for the Vancouver-Columbia-Eureka areas with the F_{MSY} Proxy of $F_{50\%}$. The OY (3,146 mt) was set equal to the ABC. To derive the commercial OY (3,086 mt) the OY is reduced by 60 mt, the amount estimated to be taken in the recreational fishery. The open access allocation (256 mt) is 8.3% of the commercial OY. The limited entry allocation (2,830 mt) is 91.7% of the commercial OY. The limited entry landed catch allocation (1,810 mt) is determined by subtracting 675 mt for anticipated bycatch in the whiting fishery then deducting 16% from the remainder.
- q/ Thornyheads – The treaty tribes estimate that 3 mt to 4 mt of thornyheads will be taken in 2001 under a trip limit of 300 pounds per trip. This small amount is not subtracted from the thornyhead OYs at this time.
- r/ Shortspine thornyhead was believed to be at 32% of its unfished biomass in 1999. The ABC (757 mt) in the north (Vancouver-Columbia-Eureka-Monterey) is based on a synthesis of two stock assessments conducted in 1998 with the application of a $F_{50\%}$ F_{MSY} proxy. The OY (689 mt) is based on applying the 40-10 harvest policy, because the biomass is in the precautionary zone. The commercial OY is reduced by 4.1 mt deducted for compensation fishing as compensation to vessels that conducted resource surveys. Open access is allocated 0.27% (2 mt) of the commercial OY and limited entry is allocated 55.7% (683 mt) of the commercial OY. A 20% rate of discard is applied to the limited entry allocation to obtain the landed catch value of 546 mt.
- s/ Shortspine thornyhead - A separate ABC (120 mt) is established for the Conception area and is based on historical catch for the portion of the Conception area north of 34°27' N latitude (Point Conception). To address uncertainty in the stock assessment due to limited information, the ABC was reduced by 50% to obtain the OY(62 mt). There is no ABC or OY for the southern Conception area.
- t/ Longspine thornyhead is believed to be above 40% of its unfished biomass. The ABC (2,461 mt) in the north (Vancouver-Columbia-Eureka-Monterey) is based on the average of the 3-year individual ABCs at a $F_{50\%}$. The total catch OY (2,461 mt) is set equal to the ABC. The commercial OY (2,453 mt) is determined by deducting 8 mt for compensation to vessels that conducted resource surveys. To derive the landed catch equivalent of 2,043 mt, the limited entry allocation is reduced by 17% (410 mt) for estimated discards.
- u/ Longspine thornyhead - A separate ABC (390 mt) is established for the Conception area and is based on historical catch for the portion of the Conception area north of 34°27' N latitude (Point Conception). The ABC was reduced by 50% to obtain the OY (195 mt). This was done to address uncertainty in stock assessment due to limited information. There is no ABC or OY for the southern Conception area.
- v/ Cowcod in the Conception area was assessed in 1999 and is believed to be less than 10% of its unfished biomass and was therefore declared as overfished in 2000. The ABC in the Conception area (5 mt) is based on the 1999 assessment, while the ABC for the Monterey (19 mt) is based on average landings from 1993-1997. An OY of 4.8 mt (2.4 mt in each area) was set to allow for rebuilding.
- w/ Darkblotched rockfish was assessed in 2000 and is believed to be at 22% of its unfished biomass. The stock is considered to be overfished at this time. Historical catch assumptions from 1965-1978 affect the estimate of unfished biomass and a ABC range is presented at this time. The lower ABC (302 mt) is based on the assumption that 10% of the red rockfish catch during the 1960s and 1970s was darkblotched rockfish; the upper ABC (349 mt) assumes 0% was darkblotched. 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. Open access is allocated 2.3% (3 mt) of the commercial OY and limited entry is allocated 97.7% (127 mt) of the commercial OY (130 mt). Limited entry discard is assumed to be 16% of the allocation resulting in a limited entry landed catch value of 106 mt.
- x/ 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 assessment, and "other rockfish", which includes species that do not have quantifiable assessments. The ABC is the sum of the individual "remaining rockfish" ABCs plus the "other rockfish" ABCs. To obtain total catch OY (3,137 mt), the remaining rockfish ABCs were reduced by 25% and the other rockfish ABCs were reduced by 50%. This was a precautionary measure due to limited stock assessment information. The OY is reduced by 645 mt for the amount estimated to be taken in the recreational fishery, resulting in a commercial OY of 2,492 mt. Open access is allocated 9.6% (239 mt) of the commercial OY and limited entry is allocated 90.4% (2,253 mt) of the commercial OY. The discard is assumed to be 16% (353 mt), resulting in a landed catch value of 2139 mt.
- y/ 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 assessments. The ABC (3,556 mt) is the sum of the individual "remaining rockfish" ABCs plus the "other rockfish" ABCs. To obtain total catch OY (2,040 mt), the remaining rockfish ABCs were reduced by 25% and the other rockfish ABCs were reduced by 50%. This was a precautionary measure due to limited stock assessment information. The OY is reduced by 950 mt for the amount estimated to be taken in the recreational fishery, resulting in a commercial OY of 1,090 mt. Open access is allocated 44.3% (483 mt) of the commercial OY and limited entry is allocated 55.7% of the commercial OY.

- z/ Bank rockfish -- The ABC is 350 mt which is based on a 2000 assessment for the Monterey and Conception areas. This stock contributes 200 mt towards the minor rockfish OY in the south.
- aa/ Black rockfish -- the ABC (1,115 mt), which is based on a 2000 assessment, is the sum of the assessment area (615 mt) plus the average catch in the unassessed (500 mt). This stock contributes 865 mt towards the minor rockfish OY in the north.
- bb/ Blackgill rockfish is believed to be at 51% of its unfished biomass. The ABC for the Conception area (268 mt) was based on a F_{MSY} proxy of $F_{50\%}$, and 75 mt were added for the Monterey area. The ABC for the Monterey area is the OY it reduced by 25% for precautionary measures, because of lack of information. This stock contributes 306 mt towards the minor rockfish south OY.

- cc/ "Other rockfish" includes rockfish species listed in 50 CFR 660.302 and California scorpionfish. The ABC is based on the 1996 review of commercial *Sebastes* landings and includes an estimate of recreational landings. These species have never been quantifiably assessed.
- dd/ "Other fish" includes sharks, skates, rays, ratfish, morids, grenadiers, and other groundfish species noted above in footnote ^{b/}.