GROUNDFISH MANAGEMENT TEAM REPORT ON
STATUS OF FISHERIES AND INSEASON ADJUSTMENTS

Limited Entry

Only two species provide any concern for early attainment of target poundage: Dover sole and shortspine thornyheads. About 50% of each of these species allocations had been landed through the end of May. However, with the suite of limits adopted by the Council in November, limits for both of those species were already lowered by over 50%, beginning May 1. This reduction resulted in May landings that were 40% to 50% lower than the preceding two monthly totals. As a result, no further changes are recommended at this time. Landings of longspine thornyheads and trawl sablefish through May represent only about 25% of the annual poundage. The sablefish limit did increase from 7,000 pounds to 10,000 pounds per two months in May, accompanied by about a 50% increase in landings. However, in conjunction with the scheduled reduction in the shortspine limit in May, the longspine limit was also lowered from 12,000 pounds to 4,000 pounds per two months. The Groundfish Management Team (GMT) would not be inclined to support a higher longspine limit unless it could be accompanied by a proportional increase in the shortspine limit.

Widow, yellowtail, and chillipepper rockfish were the three species afforded higher limits with the use of midwater gear, and much smaller bycatch allowances with small footrope gear. Of these, widow has had the highest limit poundage and has achieved the highest percentage of its annual allocation through May: 34%. Although widow poundage through May is only 60% of what it was last year at this time, the initial three-month cumulative period in 1999 accelerated landings dramatically from previous years. This year's landings are actually slightly ahead of where the fishery was at the end of May 1998. No changes are recommended at this time, though a higher limit than scheduled at the end of the year remains a possibility. Chillipepper landings through May are only 11% of the optimum yield (OY). However, the GMT feels this is indicative of the difficulties involved in fishing for it with midwater gear. Given this and the concern for potential bocaccio bycatch, no change in the limit is recommended.

The yellowtail limit was one-third of that for widow at the beginning of the year, and its landings through May represent about 20% of the available poundage. After the scheduled increase from 10,000 pounds to 30,000 pounds per two months May 1, landings increased from 52 mt in April to 316 mt in May. The GMT received comment from the industry regarding significant discard of yellowtail that was occurring in shelf flatfish fisheries, under the current 1,500 pound per-month small-footrope limit. In an effort to reduce this discard without creating undue incentive to target yellowtail with bottom gear, the GMT worked with the Groundfish Advisory Subpanel (GAP) to craft an alternative limit structure that could be employed experimentally for the remainder of the year. The proposed change would tie the small footrope yellowtail allowance to the amount of flatfish delivered in a trip. Rates in the range of 30% to 40% of the non-arrowtooth flatfish were discussed, along with lower percentages of arrowtooth. The GMT supports the GAP recommendation to constrain yellowtail landings per trip with small footrope to the lesser of 7,500 pounds or the sum of 33.3% of flatfish other than arrowtooth and 10% of the arrowtooth landed. No yellowtail allowance would be provided for trawl trips without flatfish, however the current fixed-gear bycatch limit would remain. The total amount of yellowtail caught with either midwater or small footrope gear for a two-month period would be constrained by the current 30,000-pound limit for midwater gear. The greatest concern with such an arrangement is that operations experiencing lower rates of incidental yellowtail catch on a trip may modify their strategy in an attempt to top-off their allowance before landing. However, the GMT believes this is a worthwhile experiment and hopes that the industry will refrain from altering their fishing strategies to increase their catch of yellowtail with bottom gear.

Landings of the three current rebuilding species--lingcod, Pacific Ocean perch (POP) and bocaccio rockfish--as well as canary rockfish, are in the 10% to 15% range of their annual allocations. However, there is concern that some fishers may be avoiding landing canary even when they have limit poundage remaining. No changes are recommended for these species.

Within the *Sebastes* subgroups, the shelf species limits were set in accordance with a bycatch-only policy, and both are at less than 5% of their allocations through May. However, it is noted that landings increased dramatically in both areas, coincident with the scheduled increase in limits May 1. Some of this increase is

believed to reflect targeting by fixed-gear vessels, and the GMT received reports of bocaccio discard occurring in some of these cases. At this time fishticket data cannot be used to evaluate which components of the fishery are contributing to these increases. Because of the bocaccio concerns identified in the discussion of the recreational fishery, the GMT is inclined to favor returning the shelf limit to the previous 500 pounds per month.

The slope groups have identical limits for trawl and fixed gear. In the northern area, slope rockfish landings through May represent 14% of the target poundage. The scheduled increase in this limit from 3,000 pounds to 5,000 pounds per two months was accompanied by an increase in landings from 49 mt to 93 mt. However, landings would have to average over 200 mt per month for the remainder of the year in order to achieve the available poundage. Adjustments to the current limit are also complicated by uncertainty regarding how much of the total would be comprised by darkblotched rockfish, which has been reported to Congress as a species where previous overfishing has occurred and which may be in need of a rebuilding plan next year. Aside from the darkblotched issue, the limit could probably be raised to something in the 7,000 pound to 8,000 pound per two-months range. Bank rockfish, and to a much lesser extent darkblotched, also enter into the equation for slope rockfish in the southern area, where landings through May are only 10% of the target poundage. Unlike the northern case, the same increase in limits May 1 did not increase landings in the south. Landings actually fell from 14 mt to 7 mt. A likely contributing factor to this drop was the lack of closure of opportunities to fish alternative nearshore and shelf targets in May. Since landings would have to be on the order of 50 mt per month in order to achieve the target poundage, it is not clear how high limits would have to be raised to achieve this rate. A limit of 10,000 pound per two months is presented as the best guess of a limit that might allow the target poundage to be taken.

The limited-entry table contains two sets of recommendations, one based on attempt to achieve the slope target and the second based on protecting the currently identified weak-link stocks within the subgroup. In the north, darkblotched has comprised about 50% of the identifiable slope species landings in each of the past three years, over a range of total identifiable slope landings from 500 mt to 1,200 mt. This year's limited-entry slope target in the north is nearly 1,500 mt, and the acceptable biological catch (ABC) for darkblotched is about 270 mt, 75% of which (200 mt) represents the OY contribution to the slope subgroup. If the slope target were fully achieved, expected catch of darkblotched rockfish would probably be three to four times this OY. Given the increase in May landings, the GMT feels that if not exceeding the darkblotched OY is the highest management priority, the current limit should not be raised, and may even need to be returned to the previous 3,000 pounds per two months. In the southern area, recent bank rockfish landings have ranged from 23% of the 69 mt of identifiable slope species landings in 1999 to 54% of the 870 mt identifiable slope total in 1998. This year's target is 335 mt, and the ABC for bank rockfish is around 80 mt, with an OY value (for both limited-entry and open-access) of about 60 mt. If the full target were achieved, it is probably reasonable to expect that 30% to 40% of the total would be comprised by bank rockfish. This would imply bank rockfish landings by just the limited-entry fleet of 100 mt to 135 mt, substantially over the total OY. Given the present rate of this fishery, the GMT feels that a small increase in the bi-monthly limit could be sustained without exceeding the bank rockfish OY. However, the GMT also has concerns about fixed-gear targeting of shelf rockfish and potential impacts on bocaccio mortality, given progress in the recreational fishery discussed below. If reductions are made in the shelf limit, this may transfer effort back to the slope, as was apparently the case during the April inside closure.

Limits for nearshore rockfish species were set to provide a target opportunity for fixed-gear and a bycatch allowance for trawl. The northern fishery is at 5% of its target poundage, and monthly landings showed no change with the increase in limit from 2,400 pounds to 3,000 pounds per two months in May. Landings were 3 mt in both months and would need to average over 20 mt for the remainder of the year in order to achieve the target poundage. Also, fishticket data that are available from PacFIN at this time are too incomplete to estimate what percentage of the total nearshore landings has been comprised by species other than black or blue rockfish. The southern nearshore rockfish fishery has taken only 13% of its target poundage, however their target is just 68 mt. In both of these nearshore fisheries, as well as their counterparts in the open-access fishery, the initial GMT recommendations for limits were based upon a very imprecise understanding of the relationships between limit size and participation. In the attempt to exercise caution, it would appear that some of these limits have crossed a threshold, below which most of the fishing for those species ceases. Because we are unsure how quickly effort may return to these

fisheries as limits are increased, the Council must begin to evaluate whether increasing the opportunity for individuals to make profitable trips with larger limits outweighs the potential risks of early closure. This situation is complicated by higher historical fixed-gear participation during the upcoming summer months, as well as the problematic identification of nearshore species in previous landings records, which would ordinarily be relied upon to provide a context for evaluating management alternatives.

If maintaining a fishery through the end of the year is a higher priority, then the GMT would recommend increasing the northern limit in July to 4,000 pounds per two months, no more than 1,500 pounds of which may be species other than black or blue rockfish. The southern picture is also clouded by the two-month closures in alternating portions of the California fishery. The March-April closure was apparently responsible for no nearshore rockfish being landed in either of those months. However, quota species monitoring (QSM) reports no landings in May either, despite a 300 pound per two-months increase in the limit. Given the small target and this uncertainty, the GMT would recommend increasing the limit to 1,600 pounds per two months in July. If maintaining the year-round fishery is of lesser importance than finding limits that can be profitably fished and enable the fleets to achieve their targets, the GMT would recommend increasing the northern limit to 5,000 pounds per two months, no more than 1,800 pounds of which may be species other than black or blue rockfish; and increasing the southern limit to 2,000 pounds per two months.

The fixed-gear daily-trip-limit (DTL) fishery for sablefish is also running slowly, having landed about 12% of the target poundage. Although the level of the bi-monthly cap may be responsible for some of this pace, a contributing factor is likely the available limits for shelf and slope rockfish, which are lower than in previous years. Since cost data are not available for this fishery, it is unknown to what extent fishers have depended on combining rockfish revenue with income from their 300 pounds of sablefish in order to assemble a profitable trip. Without doubt, any operation that was dependent on rockfish revenue in order to profitably pursue DTL sablefish limits would currently be able to make far fewer sablefish trips than would have been possible in the past. Given that the 300-pound limit was initially conceived as a bycatch allowance for individuals fishing rockfish and that the outlook for future shelf and slope rockfish trip limits is not promising, the Council may want to re-evaluate the current target pound for the DTL fishery and/or its daily-limit structure. Up through April, the Council experimented with an option allowing 600 pounds to be landed in a single landing once per week, with a lower bimonthly limit. Fishticket data are too incomplete to fully evaluate the degree to which this option was exercised, although it does not appear to have been widely used. While a higher daily limit may be a direction the Council wishes to consider, reports of the confusion created by having differential bi-monthly caps for those exercising this option were conveyed at the June GMT meeting. Given the uncertainty regarding the effect of rockfish limits on summer participation, the GMT recommends raising the bi-monthly cap to something in the range of 3,000 pounds to 3,300 pounds.

Open Access

Open access was allocated 3 mt of shortspine thornyheads, with no retention north of Point Conception, and 50 pounds of combined thornyheads south of there. That limit has resulted in 4 mt through May, so further retention of shortspine should be prohibited.

Although lingcod landings stand at 39% of the 31 mt allocation, all 12 mt were landed in May, following the January-April closure. The current limit of 400 pounds per month was intended to continue through October, before the fishery closed again. However, six months of fishing at the May rate would result in landings that are roughly double the allocation. If landings in June are higher than May, there may be little or no target poundage left. Because of the timing of this Council meeting, it will not be possible to close or reduce limits in this fishery by July 1. Therefore, GMT recommends returning to no retention of lingcod in open access beginning August 1.

As in limited entry, limits for shelf rockfish species were intended as bycatch only, and no change is recommended. Unlike limited entry, open-access shelf limits were not increased in May, and landings have shown no increasing trend. Landings of species in the other *Sebastes* subgroups are less than 7% of the target poundage in three cases and 15% in the fourth. In the northern nearshore group, monthly landings did not exceed 3 mt until May, when they jumped to 23 mt, coincident with an increase in the limit from 1,000 pounds to 1,500 pounds per two months. Since this is a two-month limit, however, it remains to

be seen whether this will represent the bulk of the landings for the May-June period. If the fishery averaged the amount landed in May from June through October, there would be 50 mt remaining for the last two months. Were the average in those five months to be 30 mt, 15 mt would remain. The southern nearshore fishery has only taken 6% of its target poundage and no more than 5 mt has been landed in any single month. As discussed regarding the comparable limited-entry fisheries, the magnitude of limit changes in these fisheries should be evaluated in the context of the importance of maintaining a year-round fishery. If that is a higher priority, the GMT would recommend a small increase in the north, perhaps to 1,800 pound per two months, no more than 800 lb of which may be species other than black or blue rockfish; and a more substantial increase in the south, from 800 pounds to 1,600 pounds per two months. If the Council desires an estimated discard amount to be subtracted from the open-access targets, these increases may be too large to sustain the fisheries through the end of the year. If making sure these fleets have a real opportunity to harvest all of their targets is a higher priority than increased risk of early attainment, the GMT would support increasing the northern limit to 2,500 pounds per two months, no more than 900 pounds of which may be species other than black or blue rockfish; and 2,500 pounds per two months in the south.

Although no slope rockfish have apparently been landed by open access vessels in the northern area, their target is only 10 mt. It may be reasonable to implement a small increase in this limit, given that few of these vessels would likely be interested in pursuing slope species during the winter, however the concern over darkblotched rockfish outlined above may argue against any increase. The southern fishery has landed only 1 mt of their 97 mt target. However, both of these fisheries would be expected to have a strong seasonal pattern of participation. Aside from the concern over bank rockfish, the GMT would recommend raising the southern limit from 500 pounds to somewhere in the range of 1,500 pounds to 2,000 pounds per two months, depending on the interest in ensuring a winter opportunity. Open-access landings of slope species have tended to include even higher percentages of bank rockfish than those in limited entry. With the much-reduced *Sebastes* limits of 1999, less than 9 mt of identifiable slope sub-group species were landed, but 41% of that amount was bank rockfish. The landings of these species totaled 132 mt in 1998 and 91 mt in 1997, the latter value being just under the 2000 target amount. Landings of bank rockfish in those years were 82 mt and 32 mt, respectively, comprising 82% and 35% of the totals. If this year's 97 mt target were achieved, the expected bank landings, this range of percentages would yield somewhere between 34 mt and 80 mt of bank rockfish. Recall from the limited-entry discussion that the OY for bank is calculated to be 60 mt for both sectors. Given that only 1 mt of slope species has been landed by open access through May, some limit increase may be warranted, but perhaps to something more like 1,000 pounds per two months.

As in limited entry, the DTL fishery is progressing slowly, with only 7% of the allocation having been landed through May. An increase in the bi-monthly cap from 2,400 pounds to something in the 3,000-pound to 3,300-pound range per two months would appear warranted. The discussion provided in the limited-entry section regarding the synergistic effects of shelf/slope rockfish limits on participation with a 300 pound daily limit applies to open access, as well.

Recreational

It was brought to the attention of the GMT at its June meeting that the estimated catch of bocaccio during the first four months of 2000 is 75 mt. Since the total OY for bocaccio is only 100 mt and the amount set aside to account for recreational catch is 45 mt, this is an issue of major concern. Even if the current partial-season estimate is high by a significant amount, the recreational fishery will likely have exceeded the 45 mt set-aside by the end of June. The fact that this volume of catch was generated with two-month closures in alternating areas of the state underscores the seriousness of this situation. If the current estimate is taken at face value, and the Council is intent on trying to achieve the rebuilding target for bocaccio, all fishing in areas where bocaccio might be encountered should be halted as quickly as possible. However, the GMT acknowledges that an unknown portion of the recreational catch occurs within state waters and it may be very difficult to alter California state recreational regulations inseason.

The higher-than-expected amounts of recreational catch are consistent with the conclusions presented by Dr. Alec MacCall in November, that the presence of rather strong incoming year classes would require drastic reductions in effort in order to achieve the rebuilding targets. However, anecdotal reports conveyed

to the GMT suggest that this year's catch is not comprised predominantly by young fish. It should also be noted that the GMT estimates of the amount of recreational catch with the current regulations were founded primarily on data from the 1998 fishery--reflecting 55 mt of catch--given that 1999 data were far from complete last fall. Subsequent review of the 1999 data this spring revealed that the Recreational Fishery Information network (RecFIN) estimate of last year's catch was around 120 mt.

The GMT is also concerned about the apparent rate of catch in the recreational lingcod fishery. Even though California had alternating-area, two-month closures and Washington catch is not reflected in RecFIN at this point, the estimated recreational catch through the first four months of the year is 108 mt, compared to a 215 mt set aside. This situation would appear to be analogous to that observed in the open access fishery. With the inclusion of Washington data and two more months of fishing through June it is very possible that recreational catch will be near the amount set aside for the entire year.

PFMC
06/27/00

June 2000 GMT recommendations for limited-entry trip-limit changes

	Current limits	Recommendations	
Limited entry			
		Achieve total OY	Protect weak stock *
Slope rockfish subgroup (all gears)			
North	5,000 lb / 2-months (through October)	7 - 8,000 lb / 2-months (through October)	3 - **5,000 lb / 2-months**
South	5,000 lb / 2-months (through October)	8 - 10,000 lb / 2-months (through October)	**7,000 lb / 2-months**
* Recommendations reflect concern over darkblotched rockfish (North) & bank rockfish (South)			
Shelf rockfish subgroup (**South**)	1,000 lb / month		**500 lb / month**
Nearshore rockfish subgroup (fixed-gear)		Year-round fishery priority	Target attainment priority
North	3,000 lb / 2-months (max. 1,400 non-black/blue)	4,000 lb / 2-months (max. 1,500 non-black/blue)	**5,000 lb / 2-months (max. 1,800 non-black/blue)**
South	1,300 lb / 2-months	1,600 lb / 2-months	**2,000 lb / 2-months**
Fixed-gear daily-trip-limit fishery		Current daily limit	Higher daily limit
	2,400 lb / 2-months (300 lb / day)	3,000 - **3,300 lb / 2-months (300 lb / day)**	2,400 lb / 2-months (600 lb / day)
Yellowtail rockfish (**small footrope**)	1,500 lb / month	**[33.3% of non-arrowtooth flatfish + 10% of arrowtooth on each trip] up to 7,500 lb per trip (cumulative poundage applied to the 2-month midwater limit)**	

Note: **Bold** entries represent consensus recommendations of the GMT and GAP.

June 2000 GMT recommendations for open-access trip-limit changes

	Current limits	Recommendations	
Open access			
Shortspine thornyheads	50 lb / day, S. of Pt. Conception	**No retention (August 1)**	
Lingcod	400 lb / mo	**No retention (August 1)**	
		Achieve total OY	Protect weak stock *
Slope rockfish subgroup			
North	500 lb / 2-months	700 lb / 2-months	**500 lb / 2-months**
South	500 lb / 2-months	1,500-2,000 lb / 2-months	**1,000 lb / 2-months**
* Recommendations reflect concern over darkblotched rockfish (North) & bank rockfish (South)			
Nearshore rockfish subgroup		Year-round fishery priority	Target attainment priority
North	1,500 lb / 2-months (max. 700 non-black/blue)	1,800 lb / 2-months (max. 800 non-black/blue)	**2,500 lb / 2-months (max. 900 non-black/blue)**
South	800 lb / 2-months	**1,600 lb / 2-months**	2,500 lb / 2-months
Fixed-gear daily-trip-limit fishery		Current daily limit	Higher daily limit
	2,400 lb / 2-months (300 lb / day)	3 - **3,300 lb / 2-months** (**300 lb / day**)	2,400 lb / 2-months (600 lb / day)

Note: **Bold** entries represent consensus recommendations of the GMT and GAP.

Limited-entry Inseason Progress Report: June 2000

	State distribution of tonnage thru May, 2000				1999 Thru	Individual months					Annual Allo-	Landings thru March		Landings thru April		Landings thru May	
	WA	OR	CA	Total	May	Jan	Feb	Mar	Apr	May	cation	mts	% of ann.	mts	% of ann.	mts	% of ann.
Dover sole	378	2,632	1,414	4,424	4,064	730	744	1,013	1,290	647	**8,955**	2,487	27.8%	3,777	42.2%	4,424	**49.4%**
Longspine THDS	13	434	454	901	732	173	154	199	275	100	**3,730**	526	14.1%	801	21.5%	901	**24.2%**
Shortspine THDS	17	174	169	360	333	71	56	75	108	50	**664**	202	30.4%	310	46.7%	360	**54.2%**
TWL Sable (V&C&E&M)	52	535	253	840	1,094	108	113	171	181	267	**3,355**	392	11.7%	573	17.1%	840	**25.0%**
NTW Sable (V&C&E&M)	17	4	24	45	72	5	3	10	13	14	**379** (DTL)	18	4.7%	31	8.2%	45	**11.9%**
Sablefish Conception	0	0	34	34	85	11	5	9	4	5	**425** (LE/OA)	25		29		34	
Lingcod	2	6	4	12	76	0	0	0	0	12	**132**	0	0.0%	0	0.0%	12	**9.1%**
Widow Rockfish	67	843	192	1,102	1,851	244	126	211	286	235	**3,237**	581	17.9%	867	26.8%	1,102	**34.0%**
Canary Rockfish	0	7	1	8	162	0	0	0	2	6	**88**	0	0.0%	2	2.3%	8	**9.1%**
POP (V&C&E)	6	26	1	33	165	4	2	2	6	19	**227**	8	3.5%	14	6.2%	33	**14.5%**
Yellowtail (V&C&E)	91	331	0	422	687	12	21	21	52	316	**2,153**	54	2.5%	106	4.9%	422	**19.6%**
North Near-shore RF	0	7	2	9	0	1	0	2	3	3	**172**	3	1.7%	6	3.5%	9	**5.2%**
North Shelf rockfish	7	7	28	42	0	0	1	0	14	27	**1,133**	1	0.1%	15	1.3%	42	**3.7%**
North Slope rockfish	31	125	50	206	0	29	19	16	49	93	**1,490**	64	4.3%	113	7.6%	206	**13.8%**
(V&C&E) UNSP RCKFSH	{38}	{139}	{80}	{257}	{164}	{30}	{20}	{18}	{66}	{123}	**0**	{68}	{2.4%}	{134}	{4.8%}	{257}	**{9.2%}**
Bocaccio (MT&CP)	0	0	4	4	16	1	0	1	1	1	**31**	2	6.5%	3	9.7%	4	**12.9%**
Chilipepper (MT&CP)	0	0	103	103	315	7	13	46	27	10	**915**	66	7.2%	93	10.2%	103	**11.3%**
Splitnose RF (MT&CP)	0	0	27	27	74	6	3	3	7	8	**517**	12	2.3%	19	3.7%	27	**5.2%**
South Near-shore RF	0	0	9	9	0	1	8	0	0	0	**68**	9	13.2%	9	13.2%	9	**13.2%**
South Shelf rockfish	0	0	17	17	0	0	0	0	1	16	**337**	0	0.0%	1	0.3%	17	**5.0%**
South Slope rockfish	0	0	34	34	0	8	3	2	14	7	**335**	13	3.9%	27	8.1%	34	**10.1%**
(MT&CP) UNSP RCKFSH	{0}	{0}	{60}	{60}	{38}	{9}	{11}	{2}	{15}	{23}	**0**	22		37		{60}	
Pacific Whiting	0	27	2,549	2,576	91	0	0	0	163	2,413	**0**	0		163		2,576	

Open-access Inseason Progress Report: 2000

	State distribution of tonnage thru May, 2000				1999 Thru	Individual months					Annual Allo-	Landings thru March		Landings thru April		Landings thru May	
	WA	OR	CA	Total	May	Jan	Feb	Mar	Apr	May	cation	mts	% of ann.	mts	% of ann.	mts	% of ann.
Dover sole	0	0	1	1	23	0	1	0	0	0	**0**	1		1		1	
Longspine THDS	0	0	1	1	2	0	1	0	0	0	**0**	1		1		1	
Shortspine THDS	0	0	4	4	9	1	1	0	1	1	**3**	2	66.7%	3	100.0%	4	**133.3%**
TWL Sable (V&C&E&M)	0	0	2	2	11	1	0	0	1	1	**0**	0		1		2	
NTW Sable (V&C&E&M)	3	12	27	42	31	7	2	7	11	15	**600**	16	2.7%	27	4.5%	42	**7.0%**
Sablefish Conception	0	0	9	9	6	1	1	5	0	2	**425** (LE/OA)	7		7		9	
Lingcod	1	8	3	12	29	0	0	0	0	12	**31**	0	0.0%	0	0.0%	12	**38.7%**
Widow Rockfish	0	1	1	2	14	1	0	0	0	1	**128**	1	0.8%	1	0.8%	2	**1.6%**
Canary Rockfish	0	1	1	2	25	0	0	0	0	2	**15**	0	0.0%	0	0.0%	2	**13.3%**
POP (V&C&E)	0	0	0	0	2	0	0	0	0	0	**0**	0		0		0	
Yellowtail (V&C&E)	0	2	0	2	23	0	0	0	0	2	**286**	0	0.0%	0	0.0%	2	**0.7%**
North Near-shore RF	0	22	6	28	0	0	3	1	1	23	**193**	4	2.1%	5	2.6%	28	**14.5%**
North Shelf rockfish	0	1	0	1	0	0	0	0	0	1	**50**	0	0.0%	0	0.0%	1	**2.0%**
North Slope rockfish	0	0	0	0	0	0	0	0	0	0	**10**	0	0.0%	0	0.0%	0	**0.0%**
(V&C&E) UNSP RCKFSH	{0}	{23}	{6}	{29}	{22}	{0}	{3}	{1}	{1}	{24}	**{253}**	{4}	{1.6%}	{5}	{2.0%}	{29}	**{11.5%}**
Bocaccio (MT&CP)	0	0	1	1	11	0	0	0	0	1	**24**	0	0.0%	0	0.0%	1	**4.2%**
Chilipepper (MT&CP)	0	0	22	22	50	13	1	0	5	3	**866**	14	1.6%	19	2.2%	22	**2.5%**
Splitnose RF (MT&CP)	0	0	0	0	0	0	0	0	0	0	**0**	0		0		0	
South Near-shore RF	0	0	15	15	0	3	1	3	3	5	**233**	7	3.0%	10	4.3%	15	**6.4%**
South Shelf rockfish	0	0	3	3	0	1	0	0	1	1	**258**	1	0.4%	2	0.8%	3	**1.2%**
South Slope rockfish	0	0	1	1	0	0	0	0	1	0	**97**	0	0.0%	1	1.0%	1	**1.0%**
(MT&CP) UNSP RCKFSH	{0}	{0}	{19}	{19}	{20}	{4}	{1}	{3}	{5}	{6}	**{588}**	{8}	{1.4%}	{13}	{2.2%}	{19}	**{3.2%}**

Percentage of darkblotched rockfish in identifiable landings of slope subgroup species.

	Open access			Limited entry			All commercial		
	1997	1998	1999	1997	1998	1999	1997	1998	1999
Northern area									
Identifiable landings									
Aurora Rockfish	0.0	0.0	0.7	15.0	17.0	12.5	15.0	17.0	13.2
Bank Rockfish	0.0	0.1	0.3	10.3	3.3	10.7	10.3	3.4	11.0
Blackgill Rockfish	0.0	0.1	2.5	16.2	5.2	9.8	16.2	5.3	12.3
Darkblotched Rockfish	0.6	0.2	10.5	522.0	707.4	265.2	522.5	707.6	275.6
Rougheye Rockfish	0.9	1.0	5.4	138.9	145.3	78.1	139.8	146.3	83.4
Sharpchin Rockfish	0.0	0.0	0.2	224.3	101.1	27.3	224.3	101.1	27.5
Shortraker Rockfish	0.5	0.0	0.4	90.4	48.6	22.5	91.0	48.6	22.9
Splitnose Rockfish	0.0	0.0	1.8	134.9	152.8	60.4	134.9	152.8	62.1
Total	2.0	1.4	21.8	1,152.0	1,180.7	486.5	1,154.0	1,182.1	508.0
Percentage of total									
Aurora Rockfish	0.0%	0.0%	3.2%	1.3%	1.4%	2.6%	1.3%	1.4%	2.6%
Bank Rockfish	0.0%	7.1%	1.4%	0.9%	0.3%	2.2%	0.9%	0.3%	2.2%
Blackgill Rockfish	0.0%	7.1%	11.5%	1.4%	0.4%	2.0%	1.4%	0.4%	2.4%
Darkblotched Rockfish	**30.0%**	**14.3%**	**48.2%**	**45.3%**	**59.9%**	**54.5%**	**45.3%**	**59.9%**	**54.3%**
Rougheye Rockfish	45.0%	71.4%	24.8%	12.1%	12.3%	16.1%	12.1%	12.4%	16.4%
Sharpchin Rockfish	0.0%	0.0%	0.9%	19.5%	8.6%	5.6%	19.4%	8.6%	5.4%
Shortraker Rockfish	25.0%	0.0%	1.8%	7.8%	4.1%	4.6%	7.9%	4.1%	4.5%
Splitnose Rockfish	0.0%	0.0%	8.3%	11.7%	12.9%	12.4%	11.7%	12.9%	12.2%
Southern area									
Identifiable landings									
Aurora Rockfish	0.7	1.3	0.1	32.8	17.0	5.1	33.5	18.3	5.2
Bank Rockfish	31.8	131.8	3.4	378.1	465.4	15.7	409.9	597.3	19.1
Blackgill Rockfish	58.0	21.1	4.9	199.6	200.8	42.2	257.6	221.8	47.2
Darkblotched Rockfish	0.6	6.3	0.0	273.5	175.5	4.9	274.1	181.8	4.9
Pacific Ocean Perch				4.4		1.0	4.4		1.0
Rougheye Rockfish		0.5			0.8	0.1		1.3	0.1
Sharpchin Rockfish	0.0			98.1	9.6		98.1	9.6	
Shortraker Rockfish				1.5			1.5		
Total	91.1	161.0	8.4	988.0	869.1	69.0	1,079.1	1,030.1	77.5
Percentage of total									
Aurora Rockfish	0.8%	0.8%	1.2%	3.3%	2.0%	7.4%	3.1%	1.8%	6.7%
Bank Rockfish	**34.9%**	**81.9%**	**40.5%**	**38.3%**	**53.5%**	**22.8%**	**38.0%**	**58.0%**	**24.6%**
Blackgill Rockfish	63.7%	13.1%	58.3%	20.2%	23.1%	61.2%	23.9%	21.5%	60.9%
Darkblotched Rockfish	0.7%	3.9%	0.0%	27.7%	20.2%	7.1%	25.4%	17.6%	6.3%
Pacific Ocean Perch	0.0%	0.0%	0.0%	0.4%	0.0%	1.4%	0.4%	0.0%	1.3%
Rougheye Rockfish	0.0%	0.3%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%
Sharpchin Rockfish	0.0%	0.0%	0.0%	9.9%	1.1%	0.0%	9.1%	0.9%	0.0%
Shortraker Rockfish	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%