

MEMORANDUM

TO: Council, SSC, AP Members

FROM: Jim H. Branson  
Executive Director

DATE: December 1, 1981

SUBJECT: Gulf of Alaska Groundfish Fishery Management Plan

*ACTION REQUIRED*

- I. The Plan Maintenance Team submits their report on Amendment #11 and recommends the Council extend the public review period.*
- II. An analysis of current DAH estimates is presented and may require Council action to amend the FMP.*
- III. A tentative schedule for rewriting the FMP is presented.*
- IV. Amendment #10 may be effective early in 1982.*

BACKGROUND

I. AMENDMENT #11

The Gulf of Alaska Plan Maintenance Team report is included as Agenda Item E-5(a). The team has proposed three options for the sablefish OY, i.e. 500 mt Gulf-wide, 3,500 mt Gulf-wide, and 8,200 mt Gulf-wide. Each option is discussed based on three reports the team received on November 9, and on other reports the team had available.

The PMT report, the OY options in that report, and the information received by the PMT on November 9 have not yet been reviewed by the public. The team therefore recommends that the Council not approve Amendment #11 for Secretarial review at this meeting, and that they do extend the public comment period.

If the Council takes final action on Amendment #11 at the January meeting, it could be implemented by August 15, 1982. If the Council takes final action on Amendment #11 in March, it could be implemented by late October or early November 1982.

Given current review and implementation time estimates, the Council could ask the State Department to withhold TALFF until Amendment #11 is implemented sometime in late 1982.

Included in your notebooks are summaries of the public hearings held in Seattle on October 24, 1981 [E-5(b)] and Sitka on November 2, 1981 [E-5(c)].

Copies of all written comments received to date are available from Peggy McCalment. These include:

1. The Fishing Vessel Owner's Association.
2. Henry Haugen on behalf of the vessels ARCTIC MIST, PROWLER, and SABLEFISH.
3. Alaska Food Company, Inc.
4. North Pacific Fishing Vessel Owner's Association.
5. The North Pacific Longline-Gillnet Association, by their attorney, Paul MacGregor.
6. The Japan Deep Sea Trawlers Association, by their attorney, Donald P. Swisher.
7. The Alaska Longline Fishermen's Association, by their president, F.G. Baker.

## II. GULF OF ALASKA DAH

Domestic catches for 1981 and 1982 estimates of DAH and Reserve are given in Table 1.

TABLE 1 <sup>1/</sup>  
Gulf of Alaska 1981 Domestic Catches and  
1982 DAP, JVP, DAH, and Reserve  
(1000's mt)

<u>Species</u>	<u>1982 DAP</u>	<u>1982 JVP</u>	<u>1982 DAH</u>	<u>1982 Reserve</u>	<u>1981 JVP Catch</u>	<u>1981 Total Domestic Catch</u>
Pollock	6.1	15.21	21.31	33.76	16.8362	17.512
Pacific Cod	4.0	3.0	10.0	12.0	0.0579	1.007
Flounders	1.88	1.3	3.18	6.7	0.0177	0.2683
Pacific Ocean Perch	0.62	1.48	2.1	2.295	0.0	0.0013
Other Rockfish	0.7	0.2	0.9	1.52	0.0	0.2522
Sablefish	5.8	0.68	6.48	2.6	0.0004	0.8937 <sup>2/</sup>
Atka Mackerel	0.0	2.07	2.07	5.74	0.0	0.0
Squid	0.0	0.15	0.15	1.0	n/r <sup>3/</sup>	n/r
Sebastolobus	0.006	0.0	0.006	0.75	n/r	n/r
Other Species	<u>0.3</u>	<u>0.62</u>	<u>1.72</u>	<u>3.24</u>	<u>0.043</u>	<u>0.2124</u>
TOTAL	19.416	24.71	47.916	69.605	16.9552	20.1469

- <sup>1/</sup> Source: NMFS, ADF&G; 1982 figures modified by Amendment #10  
<sup>2/</sup> dressed weight  
<sup>3/</sup> not reported

The breakdown of JVP, DAP, DNP, Reserve, TALEFF, and OY by species and by area is given in Agenda Item E-5(d). The Alaska Food Company's estimates of 1982 fish requirements is included as E-5(e).

The National Marine Fisheries Service has submitted no new estimates of DAH for 1982. It appears that DAH for 1982 in the Gulf of Alaska will cover domestic needs.

### III. REWRITE OF THE GULF OF ALASKA GROUND FISH FMP

At the September meeting the Plan Maintenance Team recommended that the FMP be reorganized and rewritten to enhance management flexibility. Since that time the PMT has worked exclusively on Amendment #11, although in the September PMT report some areas of the FMP were identified as generally needing review and rewriting.

The Council has asked the Executive Director to write to the agencies which would be involved in the rewrite of the FMP, asking for commitments of personnel and resources to undertake this task in 1982. The Executive Director has informally discussed this activity with some of the agencies which might be involved. However, it may be appropriate for the SSC to suggest the lead agency and the person to head up this effort.

The Council staff will work closely with the rewrite leader to identify the objectives of the rewrite, the amount of work involved, the expertise necessary to accomplish the task, and a reasonable work schedule to accomplish the task.

The staff currently estimates that a complete rewrite of the FMP will take one full year before a draft can be presented for Council review.

### IV. INFORMATION ON AMENDMENT #10 AND PART 5 OF AMENDMENT #8.

Amendment #10 has been under Secretarial Review since April 20, 1981. The amendment will decrease the OY for Pacific Ocean Perch in the Eastern regulatory area from 14,400 mt to 875 mt and close the Southeastern part to foreign trawling. The Yakutat part will be opened year round to foreign trawlers, but with pelagic gear only.

Currently foreign trawling is prohibited in the Yakutat part of the Eastern regulatory area from November 1 to February 15 and restricted to pelagic gear from February 16 to May 31.

In the Southeastern part of the Eastern regulatory area foreign trawlers can use only pelagic gear from December 1 to June 1 and are prohibited year-round from fishing in the three U.S. fishing sanctuaries.

NMFS estimates that Amendment #10 will become effective on March 18, 1982. Foreign trawling could begin in the Yakutat part on February 16, and continue in Southeast with pelagic gear. However, in previous years foreign trawl activity did not start until June.

Considering the drastic decrease in Pacific Ocean Perch OY for conservation reasons, it may be prudent for the Council to ask the State Department to withhold allocations of Pacific Ocean Perch until Amendment #10 becomes effective.

Part 5 of Amendment #8 has been under Secretarial Review since the spring of 1980. The rest of Amendment #8 was approved in August 1980. Although the Council received a letter from NMFS saying that Part 5 was unofficially disapproved, no explanation for this action has yet been received. Part 5 of Amendment #8 would have given the NMFS Regional Director authority to close areas where conflicts between foreign and domestic fishermen occur. The letter from NMFS is in your notebooks as item E-5(f).

JP

SUMMARY - PUBLIC HEARING ON ALL FMP's

University Tower Hotel  
Seattle, Washington

October 24, 1981

The North Pacific Fishery Management Council conducted a public hearing on October 24, 1981 at the University Tower Hotel in Seattle, Washington from 9:30 a.m. to 12 noon primarily to receive testimony on the Gulf of Alaska Groundfish Fishery Management Plan and the Southeast Alaska Troll Salmon Fishery Management Plan, and also accepted public comment on the Council's other plans. The hearing was chaired by Clem Tillion. Council members attending the hearing were Harold Lokken, Robert Mace, Donald Bevan, Gene DiDonato, and Bart Eaton. Council staff attending were Jim Branson, Clarence Pautzke, Judy Willoughby, Peggy McCalment, Jeff Povolny, Jim Richardson, Steve Davis, and Jim Glock.

Testimony received on the various plans is summarized below.

Gulf of Alaska Groundfish FMP

Plan Coordinator Jeff Povolny reviewed proposals in Amendment #11 to the Gulf of Alaska FMP and discussed the rationale for lowering the OY's of the various species.

RICHARD GOLDSMITH, Executive Director of the North Pacific Fishing Vessel Owners Association, Seattle, opposed the Alaska Longline Fishermen's Association's proposal in the amendment for sablefish to be taken by hook and line only. He said that ALFA has not provided data to substantiate the need for this action. Mr. Goldsmith alleged that approval of this action would violate National Standard 4 in that it would allocate by gear type, and National Standard 5 because it appears to be based solely on economics. He suggested that domestic fishermen should attempt to resolve their problems themselves before going to the Council for action of this type.

NPFVOA favors reporting catches before leaving Alaska waters by radio or telephone because a mandatory port call would create significant extra costs for fishing vessels.

STEVE HUGHES, representing Natural Resources Consultants, Seattle, was concerned about inconsistencies in data on sablefish migration patterns and aging and growth rates. He favored reporting by radio or telephone because it would save fuel, but questioned the November 15 to March 15 Southeast Alaska sablefish closure because significant spawning occurs in the summer months. Mr. Hughes suggested that more information is needed to determine whether a total closure of the sablefish fishery for five years would actually increase the size of the fish and possibly increase MSY.

ROBERT ALVERSON, Manager of Fishing Vessel Owners Association, Seattle, testified in favor of reducing the gulf-wide sablefish EY to the PMT's proposal of 10,965 mt, and further suggested that the OY be reduced to no more

than 7,000 mt gulf-wide. He said the Fishing Vessel Owners Association considers the Council's management of the sablefish resource since 1976 a poor example of fishery management. He felt the resource is five years behind in rebuilding efforts because of the lack of significant timely action on the part of the Council. Mr. Alverson suggested that the Council provide, through the PMT, annual information on sablefish pot surveys, observer report data, NMFS Gulf of Alaska trawl survey reports indicating abundance trends by area, INPFC summarizations by area, and U.S. industry reports.

The Fishing Vessel Owners Association opposes any reporting requirements due to lack of information on why the reporting regulations were proposed. They do support a hook and line only fishery east of 140° because hook and line gear is currently adequate in that area to harvest the quota, and suggested that the winter closure run from December 1 to February 15 rather than November 15 to March 15 to lessen down time for the fleet when markets are still available. A copy of Mr. Alverson's written testimony is attached to this hearing summary.

KONRAD URI, Vice-President of Trans-Pacific International, operators of the ARCTIC TRAWLER, opposed the ALFA proposal for a hook and line only fishery east of 140°, opening Davidson Bank to foreign longlining, and the gulf-wide winter closure.

HENRY HAUGEN, representing VIRGIL GORDON AND RUDY JOHANNSEN, operators of ARCTIC MIST and PROWLER, suggested that the Council study the Pacific Council Groundfish Plan section on the effects of a five-year total shutdown on the size of sablefish. Their data indicates that the fish would grow to approximately 10 pounds. Mr. Haugen opposed ALFA's hook and line only proposal and disagreed that pot gear takes a large number of small fish. He said that longliners take 60% large and 40% small fish, whereas the pot fishery takes as few as 10% small fish. Alaska fish ticket statistics he presented indicated that approximately 25% of the pot-caught sablefish weighed at least 7 pounds; 45% weighed at least 11 pounds; and only 4% weighed less than 5 pounds.

Mr. Haugen suggested that rather than reducing OY, a minimum size limit should be established and advocated the use of pot gear. He suggested that small pot-caught fish have a much greater chance of being returned to the sea alive; this is not possible in a hook and line fishery.

#### BERING SEA/ALEUTIAN ISLANDS GROUND FISH FMP

Plan Coordinator Jeff Povolny reviewed the status of the Bering Sea/Aleutian Islands Groundfish FMP. Projected implementation will be January, 1982. Testimony was solicited on the West German proposal for an extension of time in the Makushin Bay loading zone. That area is currently closed from October 15 to December 31 due to the crab fishery.

KONRAD URI said he had no problem with allowing the West Germans to use the loading zone until the crab fishery opens on November 1.

### KING CRAB FISHERY MANAGEMENT PLAN

Steve Davis, Plan Coordinator, said that the King Crab package has been submitted to the Region for preliminary review. This should take approximately three weeks to complete, at which time the package will be corrected, if necessary, and forwarded to Washington, D.C. to begin Secretarial review.

RICHARD GOLDSMITH reminded the Council that Pat Travers was to report on the potential approvability of exclusive registration areas. He noted that NPFVOA maintains their previous negative posture on the exclusion of Kodiak and the Peninsula from the plan

LUCI SLOAN, Executive Director of the National Federation of Fishermen, said that NEF also maintains its opposition to the exclusion of Kodiak and the Peninsula from the plan.

### SOUTHEAST ALASKA TROLL SALMON FMP

Plan Coordinator Jim Glock gave a preliminary report on the 1981 troll fishery. Southeast escapements were much better this year and the in-season closures accomplished what they intended. He said there is no indication that further measures need be taken for Southeast Alaska streams next year.

Columbia River escapements were much lower than last year. WDF feels that an obvious conservation problem exists because less than 50% escapement was achieved. Mr. Glock said he anticipates that WDF will propose further reduction of the Southeast Alaska chinook OY by 15% this year, although nothing has been received yet. The amendment package which went to the public contained industry proposals only.

CLARK EATON, Board member of Alaska Trollers Association, felt that ATA's proposals are representative of the general consensus of industry.

BOB SNELL, member of Alaska Trollers Association, said he would like the Council to recognize the problem of incidental catch of chinooks by other offshore fisheries. He suggested that the number of salmon taken by the troll fishery is miniscule compared to the number taken by offshore fleets. He stressed the need for observers on foreign trawlers.

Mr. Snell asked the Council to consider extending the troll fishery into western Alaska to put domestic fishermen in competition with the incidental trawl catch of salmon in western Alaska and relieve pressure on the Columbia River chinooks by transferring some effort to cohos.

GULF OF ALASKA GROUND FISH  
FISHERY MANAGEMENT PLAN

Amendment #11

Summaries of Public Testimony  
Sitka, Alaska, November 2, 1981

Council Members Present: Joe Demmert, Jr.  
Robert U. Mace  
Cmdr. Pete Busick

NMFS: Ron Berg  
Bill Robinson

ADF&G: Barry Bracken  
Al Davis

Council Staff: Jim Branson  
Clarence Pautzke  
Jeff Povolny  
Jim Glock

Council AP: Jack Phillips  
F. Greg Baker  
Eric Jordon

Individuals Present: 32

Individuals Testifying  
on Amendment #11: 8

On Monday, November 2, 1981, the North Pacific Fishery Management Council held a public hearing in Sitka, Alaska, on Amendment #11 to the Gulf of Alaska Groundfish Fishery Management Plan.

The following people testified on Amendment #11:

1. Greg Cushing - Sitka, Alaska

Mr. Cushing testified that he supported the ALFA proposal to ban pot fishing for sablefish in the Alaska FCZ. As reasons for his support, he cited the following: that pots target on small, immature sablefish; that pots are stored on the fishing grounds and preempt the grounds; that pots do not have biodegradable panels in them and continue to fish after they are lost; that pots take halibut as a by-catch; that a large number of pots have been lost and have permanently preempted fishing grounds; and that pot boats are from outside Alaska and sell their catch outside Alaska. Mr. Cushing said that he favored a minimum size limit on sablefish of three pounds.



2. Dan Cushing - Sitka, Alaska

Mr. Cushing testified that he wanted the sablefish fishery to be a hook and line fishery only. He stated that pot gear conflicts with longline gear and that pots target on small sablefish and therefore are detrimental to the resource.

He favored increased domestic reporting requirements, such that domestic vessels landing their catch outside of Alaska be required to make a port call before leaving the Alaska FCZ, and that they report to management agencies by radio before fishing in the Alaska FCZ.

He requested a longer time/area closure on foreign trawlers during the U.S. halibut season.

He supported a decrease in the sablefish OY and felt that if the OY is lowered Gulf-wide, more domestic fishermen would longline for sablefish west of 140°W longitude. He stated that a winter closure on sablefish was desirable because there is a higher incidental catch of halibut with sablefish in the winter, and that sablefish quality is poor at this time.

3. Kelly Brenman - Sitka, Alaska

Mr. Brenman supported the proposed ban on pot fishing for sablefish. He said that when pots are lost they continue to fish because even if they have escape panels, the cotton twine in the panels does not rot away in very deep water.

4. Greg Baker, Alaska Longline Fishermen's Association - Sitka, Alaska

Mr. Baker supported lowering the sablefish OY Gulf-wide. He noted that even though OY was set below EY in the FMP, and that catches had been below EY, there was no evidence of the sablefish resource rebuilding. He said that the fishery should be managed to benefit domestic fishermen.

He added that evidence now points to a westward migration of sablefish from Southeast and that the migrating fish would necessarily be caught by foreign longliners and would not return to the Southeast domestic fishery.

Mr. Baker supported additional reporting requirements for domestic fishing vessels, that vessels be required to make a port call before leaving the Alaska FCZ to land fish outside, and that vessels from outside Alaska be required to report to management agencies by radio or telephone before fishing in the Alaska FCZ.

Mr. Baker cited a report by Marasco and Low (Preliminary Report on Bioeconomic Considerations of Harvesting Sablefish by Longline and Trawl Gear in the Gulf of Alaska, Marasco and Low, 1979, p. 16) which showed that experimental pot gear takes a larger percentage of small sablefish than Japanese or U.S. commercial longline gear. He noted that this may justify making longline the only legal gear for sablefish for conservation reasons.

5. Orrie Bell, Alaska Longline Fishermen's Association - Petersburg, Alaska

Mr. Bell testified in favor of lowering the sablefish OY, an exclusive longline sablefish fishery, and increased reporting requirements for domestic fishermen who land their catch outside Alaska.

He told the panel that he had just returned from a two-week trip and that he had gear conflicts and grounds preemption problems with Japanese trawlers fishing near his vessel and gear sets.

He said he would rather the U.S. charter domestic vessels to conduct research than participate in the Japan-U.S. cooperative longline survey which uses a Japanese vessel.

Mr. Bell testified that he was against opening the Davidson Bank to foreign longliners, noting that a domestic salt cod fishery is beginning and will need that area, and that halibut migrate through the area and would be caught by the foreign longliners. He said that he noted much lost Japanese gear in the Shumagin Bank area when he fished there this year and that it made the grounds difficult to fish. He would not like to see this happen to the Davidson Bank.

He supported a winter closure for sablefish. Both Mr. Bell and Mr. Baker testified that they would now prefer the closure to be from December 1 to March 31, rather than from November 15 to March 15 as they originally proposed.

6. Ron Hakala - Juneau, Alaska

Mr. Hakala testified that the management regime for sablefish was a failure and resulted in the current scarcity of sablefish. He criticized the scientific evaluations based on Japanese survey work, saying that the Japanese have objectives which are not in the best interest of domestic fishermen, and are therefore not providing accurate data, are under-reporting sablefish catches, or both. This is evidenced in the difference between foreign and U.S. stock evaluations. Mr. Hakala also cited market manipulations in foreign countries as contributing to hardships for domestic fishermen.

7. Jack Phillips - Pelican, Alaska

Mr. Phillips testified in favor of lowering the sablefish OY Gulf-wide, of an exclusive longline sablefish fishery, and against opening the Davidson Bank to foreign longliners. He stated that his vessel made three trips west of 140°W in the Yakutat district and that his CPUE was as bad as it was east of 140°W in the Yakutat district. He also supported a winter closure for sablefish.

8. Steve Amos - Sitka, Alaska

Mr. Amos testified against opening Davidson Bank to foreign longliners. He supported a lower sablefish OY Gulf-wide, an exclusive longline sablefish fishery, and a winter closure for sablefish.

December 1981

TABLE 9  
 GULF OF ALASKA GROUND FISH  
 1982 Initial Allocations (1,000's metric tons)

<u>Species</u>		<u>Western</u>	<u>Central</u>	<u>Eastern</u>	<u>Total</u>
Pollock	1. OY	57.0	95.2	16.6	168.8
	2. DAH				21.31
	3. ...DAP	0.025	5.38	0.695	
	4. ...JVP	5.75	7.94	1.52	
	5. Reserve	11.4	19.04	3.32	33.76
	6. TALFF	39.25	62.84	11.65	113.73
Pacific Cod	1. OY	16.56	33.54	9.9	60.0
	2. DAH				10.0
	3. ...DAP	0.24	3.48	0.280	
	4. ...DNP <sup>1/</sup>	0.60	1.200	1.200	
	5. ...JVP	1.04	1.37	0.59	
	6. Reserve	3.312	6.708	1.980	12.0
	7. TALFF	11.368	20.782	5.850	38.0
Flounders	1. OY	10.4	14.7	8.4	33.5
	2. DAH				3.18
	3. ...DAP	0.1	0.3	0.9	
	4. ...JVP	0.6	0.82	0.46	
	5. Reserve	2.08	2.94	1.68	6.7
	6. TALFF	7.62	10.64	5.36	23.62
Pacific Ocean Perch	1. OY	2.7	7.9	0.875	11.475
	2. DAH				2.1
	3. ...DAP	0.025	0.295	0.3	
	4. ...JVP	0.32	0.96	0.2	
	5. Reserve	0.54	1.58	0.175	2.295
	6. TALFF	1.815	5.065	0.200	7.08
Other Rockfish	1. OY				7.6
	2. DAH				0.9
	3. ...DAP		Gulf-wide OY		
	4. ...JVP				
	5. Reserve				1.52
	6. TALFF				5.18
Sablefish	1. OY	2.1	3.8	7.1	13.0
	2. DAH				6.48
	3. ...DAP	0.1	1.00	4.7	
	4. ...JVP	0.17	0.22	0.29	
	5. Reserve	0.42	0.76	1.42	2.6
	6. TALFF	1.41	1.82	0.69	3.92

<sup>1/</sup> DNP estimate is based on longline and crab bait trends.

TABLE 9, Continued

<u>Species</u>		<u>Western</u>	<u>Central</u>	<u>Eastern</u>	<u>Total</u>
Atka Mackerel	1. OY	4.678	20.836	3.186	28.7
	2. DAH				2.07
	3. ...DAP	0	0	0	
	4. ...JVP	0.290	1.080	0.70	
	5. Reserve	0.936	4.167	0.637	5.740
	6. TALFF	3.452	15.589	1.849	20.89
Squid	1. OY				5.0
	2. DAH				0.15
	3. ...DAP		Gulf-wide OY		
	4. ...JVP				
	5. Reserve				1.0
	6. TALFF				3.85
Thornyhead Rockfish ( <u>Sebastolobus</u> )	1. OY				3.75
	2. DAH				0.006
	3. ...DAP		Gulf-wide OY		
	4. ...JVP				
	5. Reserve				0.75
	6. TALFF				2.994
Other Species	1. OY				16.2
	2. DAH				1.72
	3. ...DAP		Gulf-wide OY		
	4. ...JVP				
	5. Reserve				3.24
	6. TALFF				11.24

December 1981

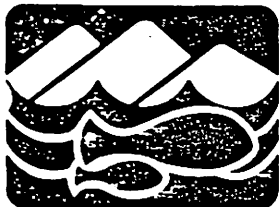
TABLE 9  
 GULF OF ALASKA GROUND FISH  
 1982 Initial Allocations (1,000's metric tons)

<u>Species</u>		<u>Western</u>	<u>Central</u>	<u>Eastern</u>	<u>Total</u>
Pollock	1. OY	57.0	95.2	16.6	168.8
	2. DAH				21.31
	3. ...DAP	0.025	5.38	0.695	
	4. ...JVP	5.75	7.94	1.52	
	5. Reserve	11.4	19.04	3.32	33.76
	6. TALFF	39.25	62.84	11.65	113.73
Pacific Cod	1. OY	16.56	33.54	9.9	60.0
	2. DAH				10.0
	3. ...DAP	0.24	3.48	0.280	
	4. ...DNP <sup>1/</sup>	0.60	1.200	1.200	
	5. ...JVP	1.04	1.37	0.59	
	6. Reserve	3.312	6.708	1.980	12.0
	7. TALFF	11.368	20.782	5.850	38.0
Flounders	1. OY	10.4	14.7	8.4	33.5
	2. DAH				3.18
	3. ...DAP	0.1	0.3	0.9	
	4. ...JVP	0.6	0.82	0.46	
	5. Reserve	2.08	2.94	1.68	6.7
	6. TALFF	7.62	10.64	5.36	23.62
Pacific Ocean Perch	1. OY	2.7	7.9	0.875	11.475
	2. DAH				2.1
	3. ...DAP	0.025	0.295	0.3	
	4. ...JVP	0.32	0.96	0.2	
	5. Reserve	0.54	1.58	0.175	2.295
	6. TALFF	1.815	5.065	0.200	7.08
Other Rockfish	1. OY				7.6
	2. DAH				0.9
	3. ...DAP		Gulf-wide OY		
	4. ...JVP				
	5. Reserve				1.52
	6. TALFF				5.18
Sablefish	1. OY	2.1	3.8	7.1	13.0
	2. DAH				6.48
	3. ...DAP	0.1	1.00	4.7	
	4. ...JVP	0.17	0.22	0.29	
	5. Reserve	0.42	0.76	1.42	2.6
	6. TALFF	1.41	1.82	0.69	3.92

<sup>1/</sup> DNP estimate is based on longline and crab bait trends.

TABLE 9, Continued

<u>Species</u>		<u>Western</u>	<u>Central</u>	<u>Eastern</u>	<u>Total</u>
Atka Mackerel	1. OY	4.678	20.836	3.186	28.7
	2. DAH				2.07
	3. ...DAP	0	0	0	
	4. ...JVP	0.290	1.080	0.70	
	5. Reserve	0.936	4.167	0.637	5.740
	6. TALFF	3.452	15.589	1.849	20.89
Squid	1. OY				5.0
	2. DAH				0.15
	3. ...DAP		Gulf-wide OY		
	4. ...JVP				
	5. Reserve				1.0
	6. TALFF				3.85
Thornyhead Rockfish ( <u>Sebastes</u> )	1. OY				3.75
	2. DAH				0.006
	3. ...DAP		Gulf-wide OY		
	4. ...JVP				
	5. Reserve				0.75
	6. TALFF				2.994
Other Species	1. OY				16.2
	2. DAH				1.72
	3. ...DAP		Gulf-wide OY		
	4. ...JVP				
	5. Reserve				3.24
	6. TALFF				11.24



# ALASKA FOOD COMPANY, INC.

September 9, 1981

SEP 14 1981

Mr. Clem Tillion  
Chairman  
North Pacific Fisheries  
Management Council  
333 West Fourth Avenue  
Anchorage, Alaska 99501

Dear Mr. Tillion:

Alaska Food Company, Inc. is currently expanding our whitefish production facilities in Kodiak, Alaska with anticipated completion scheduled for December 1981. The expanded facility will enable us to handle much larger volumes of whitefish than in 1981; our anticipated requirements are listed in the enclosed table. Please consider these amounts in your deliberations on the 1982 allocations for the Gulf of Alaska and the Bering Sea.

Should you have any questions regarding the above, please feel free to contact me prior to the September NPFMC meeting.

Sincerely,

ALASKA FOOD COMPANY

James W. Kross  
President

JWK/JM/db  
Enclosure

ESTIMATED FISH REQUIREMENTS OF ALASKA FOOD CO.  
In Metric Tons  
1982

	JANUARY - MARCH 1982				APRIL - JUNE 1982			
	<u>Bering Sea</u>	<u>Western</u>	<u>Central</u>	<u>Eastern</u>	<u>Bering Sea</u>	<u>Western</u>	<u>Central</u>	<u>Eastern</u>
TOTAL COD	2000	2500	2500		3000	1800	1200	
TOTAL POLLOCK		500	2875			1000	2375	
PACIFIC OCEAN PERCH		400	100			400	100	
FLATFISH			100				400	
SABLEFISH			200				300	
IDIOT ROCKFISH			80				120	
TOTAL ALL SPECIES	<u>2000</u>	<u>3400</u>	<u>5575</u>		<u>3000</u>	<u>3200</u>	<u>4495</u>	



ESTIMATED FISH REQUIREMENTS OF ALASKA FOOD CO.  
In Metric Tons  
1981

	JULY - SEPTEMBER 1981				OCTOBER - DECEMBER 1981			
	<u>Bering Sea</u>	<u>Western</u>	<u>Central</u>	<u>Eastern</u>	<u>Bering Sea</u>	<u>Western</u>	<u>Central</u>	<u>Eastern</u>
TOTAL COD		800	800		2000	1900	2100	
TOTAL POLLOCK		500	500			1000	2375	
PACIFIC OCEAN PERCH		150	50			400	100	
FLATFISH			100				200	
SABLEFISH			100				200	
IDIOT ROCKFISH			40				80	
		<hr/>	<hr/>		<hr/>	<hr/>	<hr/>	
TOTAL ALL SPECIES		1450	1590		2000	3300	5055	

ESTIMATED FISH REQUIREMENTS OF ALASKA FOOD CO.  
In Metric Tons

CALENDAR YEAR 1982

	<u>Bering Sea</u>	<u>Western</u>	<u>Central</u>	<u>Eastern</u>	<u>Total</u>
TOTAL COD	8900	9400	8700		27,000
TOTAL POLLOCK		4000	9500		13,500
PACIFIC OCEAN PERCH		1600	400		2000
FLATFISH			2000		2000
SABLEFISH			1000		1000
IDIOT ROCKFISH			400		400
TOTAL ALL SPECIES	<u>8900</u>	<u>15,000</u>	<u>22,000</u>		<u>45,900</u>



MUNDT, MacGREGOR, HAPPEL, FALCONER & ZULAUF

ATTORNEYS AT LAW

JAY H. ZULAUF  
JAMES C. FALCONER  
HENRY HOWARD HAPPEL, III  
WM. PAUL MacGREGOR  
J. CARL MUNDT  
J. J. LEARY, JR.  
MATTHEW COHEN  
FENTON P. WILKINSON  
KATHERINE ANN JANEWAY

1230 BANK OF CALIFORNIA CENTER  
SEATTLE, WASHINGTON 98164  
206-824-5950

December 1, 1981

Mr. Jim Branson  
Executive Director  
North Pacific Fishery  
Management Council  
Post Office Box 3136 DT  
Anchorage, Alaska 99510

Re: Amendment #11 to Gulf of Alaska FMP

Dear Mr. Branson:

The purpose of this letter, which is submitted on behalf of our clients, the members of the North Pacific Longline-Gillnet Association (the "NPL"), is to summarize the NPL's positions on those portions of Amendment #11 which would: (1) reopen Davidson Bank, on a limited basis, to foreign longlining; and (2) close the sablefish fishery in the Gulf of Alaska from November 15 to March 15 of each year. The NPL's comments on the sablefish OY issue will be submitted in a separate document; and we have no comment at this time on ALFA's proposal which would prohibit domestic trawlers and pot fishermen from fishing for sablefish east of 140°W. longitude in the Gulf.

(1) Reopen Davidson Bank, on a limited basis, to foreign longliners. This proposal, along with several others, was submitted by the NPL in our letter to you of September 3, 1981. The proposal was prompted by the fact that the domestic fishery which had been expected to develop in the Davidson Bank area simply has not materialized--despite several years of being closed to all foreign fishermen. The gist of the NPL's proposal is to reopen Davidson Bank to foreign longliners during the 6 months of the fishing year when U.S. fishing vessels are least likely to be in the area; or, in the alternative, to restrict the number of foreign longline vessels in the area at any given time to two.

Mr. Jim Branson  
December 1, 1981  
Page two

MUNDT, MACGREGOR, HAPPEL,  
FALCONER & ZULAUF

Such limited access to the area would minimize the possibility of gear conflict or ground preemption problems between foreign and domestic fishing vessels while, at the same time, help to alleviate some of the operational difficulties and diseconomies which the closure of this strategically located and historically important fishing ground has imposed on the members of the NPL. (For a more complete discussion of the rationale underlying this proposal, please refer to our letter of September 3, 1981, the relevant portions of which are attached hereto as Attachment A.)

(2) Close the sablefish fishery in the Gulf of Alaska from November 15 to March 15 of each fishing year. The NPL is opposed to this proposal which was submitted by the Alaska Longline Fishermen's Association ("ALFA"). Such a closure would, under the present allocation system in the Gulf of Alaska which involves an intricate series of reserves/DAH reapportionments to TALFF at various times during the fishing year, deprive the NPL from catching a significant portion of its annual allocation which does not become available until late in the fishing year. Such a closure would also tend to concentrate foreign and domestic fishing effort on the grounds during the summer months, greatly increasing the risk of the gear conflict and ground preemption problems which ALFA has complained of in the past.

Finally, to the extent the purpose of the closure is, as ALFA has suggested, to "prohibit the harvest of sablefish at a time when their quality and hence their economic value is significantly lessened by the effects of their spawning", pp. 3 of ALFA's September 1981 Summary of Proposed Amendments to the FMP, the proposed closure simply does not resolve the problem. As indicated by Mr. Steve Hughes in his letter to me of November 27, 1981, a copy of which is attached as Attachment B, a review of available data regarding sexual maturity of sablefish indicates that a large percentage of sablefish encountered in NMFS's annual pot survey in Southeast Alaska (62-79% of females and 20-27% of males) were found to be in a spent (recently spawned) condition during the survey months of June and July. As noted by Mr. Hughes, soft flesh or poorer quality fish are associated with such a "spent" or recently spawned condition. A winter closure would not, therefore, eliminate the harvest of significant numbers of soft-fleshed or recently spent fish. For these reasons, the ALFA proposal should be rejected.

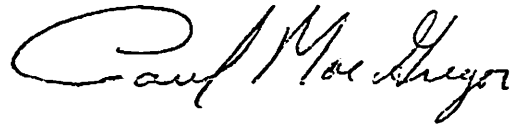
Mr. Jim Branson  
December 1, 1981  
Page three

MUNDT, MacGREGOR, HAPPEL,  
FALCONER & ZULAUF

Thank you for the opportunity to present these comments. If you, or any members of the SSC, AP or the Council have any questions concerning the points mentioned herein, I will be happy to discuss them with you during the December Council meeting in Anchorage.

Sincerely yours,

MUNDT, MacGREGOR, HAPPEL,  
FALCONER & ZULAUF

A handwritten signature in cursive script that reads "Paul MacGregor". The signature is written in dark ink and is positioned above the typed name.

Paul MacGregor

PM:as  
attachments

ATTACHMENT A

Mr. Jim Branson  
September 3, 1981  
Page four

MUNDT, MACGREGOR, HAPPEL,  
FALCONER & ZULAUJF

preferable. For that reason, we propose amending the Gulf FMP to incorporate the Bering Sea FMP's reserve-release procedures. Not only would it be more convenient from an administrative standpoint to have the same reserve/reserve-release procedures in both plans, the additional flexibility provided under the Bering Sea plan increases the likelihood that in-season adjustments necessary to effective management can be made on a timely basis. It is our understanding that the Regional Director's office would be in favor of such an amendment.

4. Exempt foreign longliners from the Davidson Bank closure.

Although foreign trawling was prohibited in the Davidson Bank area under the bilateral agreements which existed between Japan and the United States prior to the passage of the MFCMA, and under the Preliminary Management Plan initially promulgated for groundfish in the Gulf of Alaska, the area was open for foreign longliners and had traditionally constituted an important fishing ground to the members of the NPL.

When the FMP provision closing the Davidson Bank area to all foreign fishing was initially proposed, the NPL objected on several grounds: first, that the closure was unnecessary to protect groundfish stocks as OY considerations had already taken into account the need to rebuild and protect important stocks; second, that closure of the area would deprive NPL members of access to an area which had been a traditionally important longline fishing ground; and third, that closure of Davidson Bank, which is located in the middle of the Shumagin fishing area, would impose serious operational difficulties in longline operations where gear is set along bathymetric contours. Such operational difficulties increase operating costs and decrease CPUEs.

In Council deliberations on the issue, one factor that weighed heavily in the Council members' minds was the possibility of gear conflict between foreign longliners and the domestic fishery which was expected to develop in the area. In response to that concern, the NPL proposed to curtail operations in Davidson Bank by either limiting the number of NPL vessels which would fish in the area at any given time, or by agreeing not to fish in the area at all during the 6 months of the fishing year when U.S. boats were most likely to be in the area. While the Council did not adopt either of the NPL proposals, the need to review the closure from time to time to determine whether or not a domestic fishery had, indeed, developed in the area was recognized.



Mr. Jim Branson  
September 3, 1981  
Page five

Based upon domestic catch reports issued by the Alaska Department of Fish and Game, and recent telephone conversations with ADF&G personnel, it appears that domestic effort in the Davidson Bank area remains "almost nil." The only domestic effort in the area of which ADF&G is aware is some limited trawling by vessels fishing for tanner crab bait--the same situation which existed three years ago. Based upon conversations with the National Marine Fisheries Service, it does not appear that any joint venture operations are being conducted in the area either.

As no domestic fishery has developed in the area, there would be little or no danger of gear conflicts if Davidson Bank were reopened to foreign longliners--especially if the area was reopened on either of the conditions originally proposed by the NPL: no more than 2 foreign longline vessels in the area at any given time; or no operations at all during the 6 months of the year when U.S. fishermen are most likely to use the area.

For these reasons, we propose that Davidson Bank be reopened to foreign longlining on a limited basis.

Thank you for your consideration of the proposals contained in this letter. If you, or any of the members of the Council, SSC or AP have any questions, we will be happy to discuss them with you in Anchorage at the time of the September meeting.

Sincerely yours,

MUNDT, MacGREGOR, HAPPEL,  
FALCONER & ZULAUF

Paul MacGregor

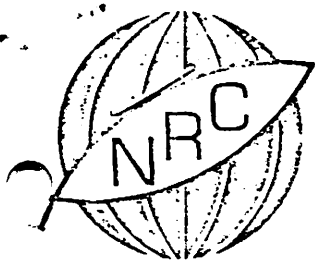
PM:as

cc: Mr. Robert McVey  
Dr. Jim Balsiger  
Mr. Don Rosenberg  
Mr. Bob Alverson

ATTACHMENT B

NATURAL RESOURCES CONSULTANTS

4055 21st Avenue West • Seattle, Washington 98199, U.S.A. • [206] 285-3480



November 27, 1981

RECEIVED  
DEC 1 1981

MUNDT, MacGREGOR, HAPPEL,  
FALCONER & ZULAUF

Mr. Paul MacGregor  
Mundt, MacGregor, Happel,  
Falconer and Zulauf  
1230 Bank of California Center  
Seattle, Washington 98164

Dear Paul:

As a result of our November 21, 1981, telephone conversation, I have obtained the available NMFS sablefish data regarding state of sexual maturity which was collected in coastal southeast Alaska during 1978-80. I have summarized the data in Table 1 (attached).

In terms of sablefish quality, soft-fleshed fish are associated with a spent (recently spawned) condition. The data shows that while the percentage of spawning fish in coastal southeast Alaska is low in June and July, 62-79 percent of the females and 20-27 percent of the males are in a spent condition during this early summer period. This data does not indicate that the harvest of soft-fleshed fish associated with a "spent condition" would be eliminated by a winter closure.

Sincerely,

Steven E. Hughes  
Partner

Attachment

Table 1. Numbers of coastal southeast Alaska sablefish examined for state of sexual maturity and the percent found in spawning and spent condition, June and July 1978-80. Source: National Marine Fisheries Service, Seattle.

Year	Number Sablefish Examined	Spawning (percent)	Spent (percent)
1978	238 females	8	65
1978	465 males	5	21
1979	615 females	<1	62
1979	657 males	2	27
1980	673 females	<1	79
1980	908 males	1	20

MUNDT, MacGREGOR, HAPPEL, FALCONER & ZULAUF  
ATTORNEYS AT LAW

JAY H. ZULAUF  
JAMES C. FALCONER  
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WM. PAUL MacGREGOR  
J. CARL MUNDT  
J. J. LEARY, JR.  
MATTHEW COHEN  
FENTON P. WILKINSON  
KATHERINE ANN JANEWAY

1230 BANK OF CALIFORNIA CENTER  
SEATTLE, WASHINGTON 98164  
208-824-6950

December 1, 1981

Mr. Jim Branson  
Executive Director  
North Pacific Fishery  
Management Council  
Post Office Box 3136 DT  
Anchorage, Alaska 99510

Re: DAH Levels in the Gulf of Alaska and  
Bering Sea

Dear Mr. Branson:

It is our understanding that the Council may review the question of DAH levels on a number of species in the Gulf of Alaska and Bering Sea during the December Council meeting. In that regard, we would like to submit the following comments on behalf of our client, the North Pacific Longline-Gillnet Association (the "NPL").

1. Sablefish DAH in the Gulf of Alaska. The DAH estimates for sablefish in each of the regulatory areas of the Gulf of Alaska were originally made when the FMP was initially promulgated several years ago. At that time, there was a great deal of uncertainty regarding the degree and extent to which the domestic fishery would expand in the Gulf of Alaska. There was, therefore, a tendency to overstate DAH's in order to accomodate any unexpected growth in domestic harvesting activity. Since the original DAH estimates were made, however, a system of reserve/reserve reapportionments has been incorporated into the Plan for the purpose of insuring that adequate supplies of fish are available to domestic fishermen throughout the fishing year. The reserve system alleviates the need for excessively large DAHs. Indeed, overly large DAHs actually interfere with the purpose and intent of the reserve mechanism which is designed to provide for an orderly allocation of fish between domestic and foreign fishermen throughout the fishing year.

Based on domestic harvesting activity in the Gulf of Alaska over the past five years, it is clear that the FMP's DAH projections on a number of species, particularly sablefish, are somewhat excessive and should be revised. The following chart compares the DAH/reserve levels for sablefish in each area of the Gulf (except Southeast where no foreign sablefish fishing is allowed) with the domestic harvest levels in those areas for each of the past five years.

Sablefish DAH Gulf of Alaska*/ (in metric tons)				
		<u>Western</u>	<u>Central</u>	<u>Yakutat</u>
DAH		270 mt.	1220 mt.	1380 mt.
Reserve		251	456	852
<hr/>				
<u>Actual</u>	1977	0	0	163
<u>Catch</u>	1978	1	1	130
	1979	0	58	577
	1980	1	70	195
	1981**/	<u>0</u>	<u>6</u>	<u>20 (est.)</u>
5 YEAR TOTAL:		2 mt.	135 mt.	1085 mt.

As can be seen from the above chart, domestic sablefish harvest levels have come nowhere near the FMP's DAH projections in any portion of the Gulf. In fact, in no instance has the domestic harvest in any given area in any given year exceeded 70% of the reserve set aside for that area.

It is our belief that the DAH levels for sablefish in the Gulf of Alaska should be revised to reflect a more realistic projection of domestic harvest. One possible approach would be to set DAH in each area at a level equal to the highest domestic annual catch which

\*/ Figures based upon ADF&G groundfish reports.

\*\*/ Through September 30, 1981

has occurred in that area during the past 5 years (e.g. 1 mt. in the Western area; 70 mt. in the Central area; and 577 mt. in the Yakutat area), with the reserves serving as a backup or cushion for any unexpected development in the domestic fishery. The resulting DAH figures could be further adjusted, if necessary, to reflect proven increases in domestic harvesting capacity.

2. Sablefish DAH's in the Bering Sea and Aleutian Islands. The current PMP for the Bering Sea and the soon-to-be-implemented FMP provide for separate DAHs and reserves for the Bering Sea and Aleutian Island areas. The following chart compares the domestic harvest in the Bering Sea and Aleutian Island areas with the PMP's and FMP's projected catch and reserve levels for each year since 1977:

Sablefish DAH Bering Sea/Aleutian Island Area */		
	<u>Bering Sea</u>	<u>Aleutian Islands</u>
DAH	700 mt.	700 mt.
Reserve	350 mt.	150 mt.
<hr/>		
Total	1977	1 mt.
Domestic	1978	0 mt.
Harvest**/	1979	0 mt.
	1980	63 mt.
	1981**/	<u>178 mt.</u>
5 YEAR TOTAL		242 mt.

As in the case of the Gulf, we would propose a revision of the Bering Sea sablefish DAHs so that the new figures would reflect the highest annual harvest level attained in the last five years, with the reserves then serving as a back-up for increases in domestic harvesting activity.

\*/ Figures based upon ADF&G groundfish reports.  
\*\*/ Through September 30, 1981  
\*\*\*/ ADF&G data does not break down catch reports between Bering Sea and Aleutian Islands.

Mr. Jim Branson  
December 1, 1981  
Page four

MUNDT, MacGREGOR, HAPPEL,  
FALCONER & ZULAUF

A revision of the sablefish DAHS in the Gulf of Alaska and Bering Sea/Aleutian Island areas as suggested above would promote fuller utilization of fishery resources. It would also facilitate a more orderly and expeditious apportionment of fish between domestic and foreign user groups in a way that not only insures adequate supplies of fish to domestic fishermen but also provides foreign fishermen with a reasonable opportunity to take allocations which are ultimately made available to them. For these reasons, the NPL urges the Council to revise DAH levels to more accurately reflect realistic projections of domestic catch.

Thank you for the opportunity to submit these comments. If you have any questions concerning them, I will be happy to discuss them with you during next week's Council meetings.

Sincerely yours,

MUNDT, MacGREGOR, HAPPEL,  
FALCONER & ZULAUF



Paul MacGregor

PM:as



**DRAFT**

GULF OF ALASKA  
GROUNDFISH

Plan Maintenance Team Report

on

Amendment #11 to the Fishery Management Plan

December 6, 1981

GULF OF ALASKA GROUND FISH  
Plan Maintenance Team Report

Subject: Amendment #11 to the FMP for Gulf of Alaska Groundfish

I. INTRODUCTION

The Gulf of Alaska Groundfish Plan Maintenance Team met on Monday and Tuesday, November 9 and 10. Agency representatives to the meeting were as follows:

NPFMC	Jeff Povolny
NMFS, Alaska Region	Phil Chitwood
ADF&G	Mark Miller Barry Bracken
IPHC	Steve Hoag
NMFS, NWAFC	Jim Balsiger Joe Terry Harold Zenger

The team received the following reports and presentations:

1. Interim Report on the Results of Sablefish (Anoplopoma fimbria) Tagging Experiments in Southeastern Alaska 1979-1981  
by Barry E. Bracken, ADF&G
2. Relative Abundance and Size Composition of Sablefish in the Coastal Waters of Southeast Alaska 1978-1981  
by Harold H. Zenger, Jr., NWAFC
3. A simulation Model for Sablefish in the Gulf of Alaska  
by Joseph Terry and James Balsiger, NWAFC

Other documents which the team had available for the meeting are listed at the end of this report.

The purpose of the meeting was to consider the reports listed above and then to develop management options to be considered in the final form of Amendment #11. The Amendment as proposed and reviewed by the public recommended lowering the sablefish OY Gulf-wide, but only recommended that the OY be not greater than 9,000 mt. This report will discuss three options for consideration by the Council for the sablefish OY. The options are primarily based on

the three papers referenced above and on the papers by Bracken (1981b) and Balsiger (1981) which were attached to the October 2 amendment package.

## II. SUMMARY OF CERTAIN BIOLOGICAL FACTORS

The determination of OY is dependent on many factors. Information currently available for three of these factors (status of stocks, migration, and growth) is briefly summarized here.

### A. Status of Stocks

Determination of available yield from a population of fish is dependent on the size at which an individual fish becomes available to the fishery. EY for sablefish, as presented in the FMP, is based on data from the Japanese long-line fishery. Thus the current EY reflects yields with sablefish entering the fishery from about 42 cm (1.2 lbs. dressed weight) until the fully recruited sizes of 62-65 cm (4.2-4.8 lbs. dressed weight); fish are 50% recruited at 55 cm (2.8 lbs. dressed).

On the basis of the decline of CPUE from 1976 to 1977, Low et al. (1979) determined EY for the Gulf of Alaska to be 14,000 tons. The EY for the area where foreign longlining is permitted was 8,540 tons. Since the 1980 CPUE for this area is not different than the 1977 CPUE, EY for the area west of 140°W can be estimated to remain at 8,540 tons.

Due to the termination of foreign longlining in the eastern Gulf, it is more difficult to estimate EY for the area. Zenger and Hughes (1981) defined marketable-sized fish as those 57 cm or larger (3.0 lbs. dressed), and estimated ABC of that portion of the stock at 2,580 tons in 1980 for the Southeastern area. As a result of the 1981 pot index survey (Zenger 1981) showing a decline of 50% for this size range, EY for Southeast Alaska can be estimated at 1,290 tons.

Almost no current research information is available for the portion of the Yakutat area east of 140°W longitude. On the basis of U.S. observer estimates, sablefish stocks in the Yakutat area west of 140°W were judged to be as abundant, though of a smaller size, in 1980 as in 1977. As stated

above, Southeast stocks are thought to be off 50%. Assuming a general decline from west to east through Yakutat and Southeast suggests the stocks in the eastern part of Yakutat may be down 25%; this suggests EY values for the Gulf of Alaska are:

<u>Western</u>	<u>Central</u>	<u>Yakutat W of 140°W</u>	<u>Yakutat E of 140°W</u>	<u>Southeast</u>	<u>Total</u>
2,225 t	4,075 t	2,240 t	1,135 t	1,290 t	10,965 t

When the results of the 1981 Japan-U.S. cooperative longline survey became available (Sasaki 1981), a puzzling discrepancy was noted in the results for Southeast. This index showed a 116% increase in sablefish (larger than 3 lbs. dressed) for 1981 compared to 1980. Future research and commercial fishery results may explain why the longline survey found twice as many fish where the pot survey found only half as many from 1980 to 1981.

#### B. Migration

In spite of a long history of tagging studies off the west coast of North America, the migratory patterns and stock definition of sablefish are not yet understood. Lack of definitive conclusions can be attributed to several shortcomings in the tagging programs:

- (i) sablefish from western regions were not tagged until recently;
- (ii) tag recovery rates were low;
- (iii) recovery effort (and probably tag recognition and return) was not uniform throughout the sablefish habitat.

Generally speaking, the earlier studies reported in the literature find that although a few individuals travel long distances, most tagged fish are recaptured near the release site. These studies include:

- (i) Edson (1954) tagged fish in Southeast and found very little migration but recognized he had not fully addressed stocks in the outside waters.

- (ii) Holmberg and Jones (1954), who analyzed tagging studies off Washington and Oregon, also saw very little migration, but noted that the short time between tagging and recovery may have biased their results.
- (iii) Low, et al. (1976) noted that some extensive migrations took place of sablefish tagged in the Bering Sea, but concluded that the majority of tagged fish do not migrate over great distances.
- (iv) Wespestad (1981), in an introductory paragraph, concisely summarizes the early work:

"Some studies of sablefish migration had been conducted in the 1950's and 1960's (Holmberg and Jones 1954, Edson 1954, Pruter 1959, Novikov 1968, Pasquale 1962, Pattie 1970). In these studies, most of the tagged fish were recovered near the area tagged; however, some fish were recovered over a thousand km away (Pruter 1959, Holmberg and Jones 1954). Some fish tagged in the Gulf of Alaska were recovered off the California coast (Edson 1954) while other fish, tagged off the Washington coast, were recovered in the Bering Sea (Pasquale 1962, Pattie 1970). The results of these studies provided direct evidence of the occurrence of some long-range movement, but the degree of long-range movement within the population could not be evaluated since, in most of the studies, the number of fish tagged and recovered was small, each tagging project covered only a portion of the known range of sablefish."

Wespestad then analyzed the results of a multi-national tagging program and concluded that there was no reason to disagree with the results of the earlier studies. However, only a small number of fish were tagged in the central Gulf of Alaska, and none were tagged to the west of there.

Two recent studies for which preliminary results are available suggest notably different theories on sablefish migration.

- (i) Sasaki (1980), on the basis of 155 recoveries of 23,114 tagged sablefish released throughout the Gulf of Alaska in 1977 and 1978, suggests that there could be considerable geographical mixing of the stocks even in a relatively short period of time. Sasaki (1980) also presents some evidence to suggest that there is non-reporting of recovered tags by vessels fishing the central and western Gulf of

Alaska. This non-reporting would bias the result towards a conclusion of significant west-east migration.

- (ii) Bracken (1981a) analyzed 168 recoveries of 10,507 sablefish tagged in Southeast Alaska inside waters in 1979-1981. Of the 168 tags returned, 27 were recovered 90 miles or more from the release sites. Eight fish were recovered in Dixon Entrance, 11 fish north of Dixon Entrance, and eight fish south of Dixon Entrance. The group of fish recovered north traveled an average of 569 miles and averaged 543 mm when released. The group which were recovered south of Dixon Entrance traveled 191 miles and averaged 637 mm when released.

Bracken (1981a) noted that observer coverage on the foreign longline fleet in 1980 was very low and that all tags returned were from vessels with observers on board. Again, non-reporting of recovered tags would bias the migration study.

The PMT concluded that the early studies did not address the question of west to east migration in the Gulf of Alaska, nor was the possibility of juvenile migration explored. The PMT noted that Pacific halibut spawns in the southeastern part of its range, drifts north and west, as eggs and larvae, and migrates back to the east and south as it is recruited to the fishery. Although we cannot conclude an analagous situation for sablefish, the possibility does exist that there are at least some size-specific migration patterns not uncovered by the tagging of adult fish.

The results of the current tagging studies (Sasaki 1980, Bracken 1981a) are considered preliminary. As the tag returns accumulate over the next couple of years, the migration pattern should become clearer.

### C. Growth

Growth of sablefish is difficult to determine since there is some disagreement over aging techniques for otoliths and scales. Since there is no general agreement on growth rates, Terry and Balsiger (1981) selected two rates to demonstrate the sensitivity of their model to the growth parameter. The two growth rates used could be termed a "medium slow" and a "medium fast" rate.

Growth curve 2 (medium slow) was taken from Bracken (1981a) and growth curve 1 (medium fast) from Terry and Balsiger (1981). It should be noted that there are slower growth curves than growth curve 2 and faster growth curves than growth curve 1 in the literature.

### III. THE OBJECTIVE OF AMENDMENT #11

The team proposes the following objective for sablefish management under the Gulf of Alaska Groundfish FMP:

Manage the sablefish resource to provide for the development of the domestic sablefish fishery Gulf-wide.

The proposed objective is based on the management objectives as listed in Section 8.1 of the FMP, and specifically management objective 3:

- (1) Rational and optimal use, in both the biological and socio-economic sense, of the region's fishery resources as a whole;
- (2) Protection of the Pacific halibut resource, which for decades has supported the only significant U.S. groundfish fishery in the region, but which is currently in a state of grave decline;
- (3) Provision for the orderly development of domestic groundfish fisheries, consistent with (1) and (2) above, at the expense of foreign participation;
- (4) Provision for foreign participation in the fishery consistent with (1), (2), and (3) above, to take that portion of the optimum yield not utilized by domestic fishermen.

The team also considered Section 6.2 of the FMP which emphasized the special importance of sablefish in the development of a domestic groundfish fishery in the Gulf of Alaska.

### IV. THE CURRENT MANAGEMENT REGIME

The team recommends that the current management regime of management by areas be maintained and that the designated sablefish management areas remain as they are. Currently, there are five sablefish management areas: the Western Gulf, the Central Gulf, Yakutat, Southeast Outside, and Southeast Inside.

The recommendation to maintain the current management areas is based on the possibility that localized stock depletions could occur at current fishing effort levels. While the extent of the between-area exchange is not clear, to minimize possible short-term depletions the sablefish resource should still be managed to avoid concentrations of effort in any one area.

#### V. SABLEFISH OY

The current sablefish OY is 13,000 tons Gulf-wide. In the October 2 copy of proposed Amendment #11, the team recommended that the Gulf-wide OY be not greater than 9,000 tons. This was based primarily on the paper by Bracken (1981b) which showed that total harvests since 1978 have been approximately 30% below the OY and that no evidence of Gulf-wide rebuilding of domestically-preferred marketable-sized sablefish has occurred.

The team also recommended that the EY Gulf-wide equal 10,965 mt, based on Balsiger's (1981) estimate of sablefish EY. The team's recommendation to the Council is that this estimate of EY be adopted.

The team is presenting to the Council a discussion of the estimated effects of each alternative Gulf-wide, based on the paper by Terry and Balsiger (1981). Concerning this paper, the team noted that while the simulation model provided very useful information, the model was sensitive to certain assumptions concerning the values of both biological and economic parameters. The optimum management strategy, in terms of the management objective proposed by the team, was quite sensitive to the growth curves and initial biomass used in the model.

The alternative OY's are 500, 3,500, and 8,200 tons. These alternatives were selected to present the Council with the implications of: (1) OY's at the extremes of the relevant range of OY's, and (2) a mid-range OY. The alternatives are not being presented as either ranked or preferred options. The following discussion of the three alternatives is in terms of the implications of approximately applying a given OY from 1982 through 1984 followed by the corresponding 1985 OY which was estimated to produce the greatest net earnings for the domestic sablefish fleet. It is assumed that an increase in net earnings would encourage the development of the domestic sablefish fishery.



A. Alternative 1: 500 mt OY Gulf-wide

An OY of 500 tons would essentially close the Gulf of Alaska sablefish fishery and could severely impact those Gulf of Alaska trawl fisheries which have unavoidable sablefish by-catches. This alternative demonstrates the upper limit on the ability of management to rebuild sablefish resources by 1985. It should be noted that the results of a rebuilding schedule that extends beyond 1985 would be highly speculative because very little is known about the spawner-recruit relationship of sablefish.

Data included in Tables 1 and 2 indicate that the potential benefits of maintaining a Gulf-wide OY of 500 tons through 1984 are critically dependent on the rates at which sablefish are assumed to grow. With growth curve 1, profitable, but severely limited, domestic participation is possible from 1982 through 1984; a very high level of participation would be possible by 1985. With growth curve 2, the rebuilding is not expected to be sufficient to either increase the profitability of the domestic fishery or increase domestic participation.

B. Alternative 2: 3,500 mt OY Gulf-wide

An OY of 3,500 tons could be allocated in a manner that would permit the domestic sablefish fleet and the foreign and domestic trawl fleets to maintain current catch levels. Such an allocation could be at the expense of the foreign directed sablefish fishery. Data included in Tables 1 and 2 indicate that an OY of 3,500 tons for 1982 through 1984 would be expected to rebuild sablefish resources, increase the profitability of the domestic fishery, and permit increased domestic participation by 1985 under growth curve 1. With growth curve 2, annual yields of 3,500 tons would be expected to decrease both resource abundance and the participation of the domestic fleet.

C. Alternative 3: 8,200 mt OY Gulf-wide

An OY of 8,200 tons is consistent with the current management regime in which OY equals approximately 75% of EY. The team recommends a Gulf-wide EY of 10,965 tons (Balsiger, 1981), 75% of which is approximately 8,200 tons. The 1981 harvest is not expected to exceed 8,200 tons; therefore, an OY of

Table 1.--Estimated Performance, 1981-1985

	1981	1982	1983	1984	1985
<u>GROWTH CURVE 1</u>					
<u>Alternative 1 (500 t)</u>					
Yield (t)	8,055	499	552	575	12,486
Net earnings (\$1000)	-299	6	26	44	576
Average weight (lbs/fish western cut)	5.13	5.34	5.61	5.96	6.36
Real price/fish (\$)	2.43	2.86	3.14	3.59	3.57
Gross earnings per trip (\$)	9,300	11,300	13,000	14,600	12,900
Effort (boat year)	54	3	3	3	71
<u>Alternative 2 (3,500 t)</u>					
Yield (t)	8,055	3,533	3,817	3,882	10,581
Net earnings (\$1000)	-299	6	117	209	364
Average weight (lbs/fish western cut)	5.13	5.34	5.59	5.93	6.32
Real price/fish (\$)	2.43	2.78	3.03	3.46	3.60
Gross earnings per trip (\$)	9,300	10,800	12,100	13,300	12,300
Effort (boat year)	54	22	22	22	64
<u>Alternative 3 (8,200 t)</u>					
Yield (t)	8,055	8,221	8,541	8,371	5,092
Net earnings (\$1000)	-299	-119	36	144	120
Average weight (lbs/fish western cut)	5.13	5.33	5.56	5.88	6.25
Real price/fish (\$)	2.43	2.66	2.88	3.26	3.71
Gross earnings per trip (\$)	9,300	10,100	10,900	11,500	11,700
Effort (boat year)	54	53	53	53	34
<u>GROWTH CURVE 2</u>					
<u>Alternative 1 (500 t)</u>					
Yield (t)	7,965	499	515	504	420
Net earnings (\$1000)	-335	-23	-14	-13	-22
Average weight (lbs/fish western cut)	4.96	4.97	5.07	5.27	5.41
Real price/fish (\$)	2.33	2.52	2.67	2.85	2.98
Gross earnings per trip (\$)	9,100	9,100	9,700	9,800	9,000
Effort (boat year)	54	4	4	4	4
<u>Alternative 2 (3,500 t)</u>					
Yield (t)	7,965	3,552	3,562	3,393	388
Net earnings (\$1000)	-335	-200	-169	-188	-32
Average weight (lbs/fish western cut)	4.96	4.96	5.05	5.24	5.37
Real price/fish (\$)	2.33	2.45	2.58	2.74	2.93
Gross earnings per trip (\$)	9,100	8,700	9,000	8,800	8,200
Effort (boat year)	54	26	26	26	4
<u>Alternative 3 (8,200 t)</u>					
Yield (t)	7,965	8,215	7,879	7,190	342
Net earnings (\$1000)	-335	-607	-626	-742	-46
Average weight (lbs/fish western cut)	4.96	4.96	5.02	5.19	5.30
Real price/fish (\$)	2.33	2.34	2.44	2.59	2.85
Gross earnings per trip (\$)	9,100	8,100	8,000	7,500	7,100
Effort (boat year)	54	62	62	62	3

These estimates are based on two assumptions: (1) all catch is taken by the domestic fleet and (2) the real exvessel prices for small, medium, and large sablefish are assumed to be \$0.0, \$0.30, and \$0.70 per pound western cut.

Table 2.--Estimated Cumulative Discounted Net Earnings,<sup>1/</sup> 1982-1985 (\$ million)

Percent of estimated value of $\frac{FC/a}{2}$	Growth Curve 1			Growth Curve 2		
	500 t	3,500 t	8,200 t	500 t	3,500 t	8,200 t
20	2.04	3.34	4.59	0.28	1.52	3.06
30	1.84	2.98	4.03	0.24	1.28	2.49
40	1.63	2.62	3.46	0.20	1.03	1.92
50	1.43	2.26	2.90	0.15	0.79	1.35
60	1.23	1.90	2.34	0.11	0.54	0.78
70	1.02	1.54	1.78	0.07	0.30	0.20
80	0.82	1.18	1.23	0.03	0.05	-0.37
90	0.62	0.82	0.66	-0.01	-0.19	-0.94
100	0.41	0.46	0.10	-0.05	-0.44	-1.51
110	0.21	0.10	-0.46	-0.09	-0.69	-2.08
120	0.01	-0.26	-1.02	-0.13	-0.93	-2.65
130	-0.20	-0.62	-1.58	-0.18	-1.18	-3.22
140	-0.40	-0.98	-2.14	-0.22	-1.42	-3.79
150	-0.60	-1.34	-2.70	-0.26	-1.67	-4.36
160	-0.81	-1.70	-3.26	-0.30	-1.91	-4.93
170	-1.01	-2.06	-3.82	-0.34	-2.16	-5.50
180	-1.22	-2.41	-4.38	-0.38	-2.41	-6.07

<sup>1/</sup> The net earnings estimates are based on two assumptions: (1) all catch is taken by the domestic fleet and (2) the real exvessel prices for small, medium, and large sablefish are assumed to be \$0.0, \$0.30, and \$0.70 per pound western cut.

<sup>2/</sup> FC/a equals the ratio of cost per unit effort to the catchability coefficient.

8,200 tons could permit the continuation of the current harvest level. Whether a decrease in the OY from the current level of 13,000 tons to 8,200 tons would result in a yield below current levels would depend on factors such as the allocation of OY among nations and fleets, the timing of releases, and the ability of each fleet to fully utilize its allocation.

With growth curve 1, an OY of 8,200 tons would not be expected to result in continued rebuilding of sablefish resources through 1985. However, a 25% increase in gross earnings per trip would be expected. With growth curve 2, an OY of 8,200 tons would result in decreases in both resource abundance and domestic participation.

The costs incurred by reducing yields to rebuild stocks can be compared to the probable benefits of increased domestic participation to determine the desirability of a given rebuilding schedule. The comparison is made difficult by uncertainty associated with the probability that a rebuilding schedule will result in increased domestic profitability and participation. However, even with growth curve 1 and the most rapid rebuilding schedule (i.e., an OY of 500 mt for 1982 to 1984) the net earning per ton to domestic fishermen would be less than \$50. Foreign tonnage fees for sablefish in 1982 will be approximately \$110 per ton. Therefore net benefits to the U.S. in 1985 would be negative.

#### VI. PERCENT ALLOCATION BETWEEN MANAGEMENT AREAS

The team recommends that the current percentage allocation between areas be maintained, i.e., 16% of OY to the Western Gulf, 29% to the Central Gulf, 55% to the Eastern Gulf. In the Eastern Gulf, the allocation to the Yakutat, Southeast Outside and Southeast Inside areas will depend on the OY option adopted. The allocations currently are 48% to Yakutat, 42% to Southeast Outside, and 10% to Southeast Inside. Southeast Inside waters are managed by the State of Alaska.

#### VII. THE NPL PROPOSAL TO ALLOW FOREIGN FISHING IN THE DAVIDSON BANK AREA

The team considers the rationale in the FMP for excluding foreign fishing from Davidson Bank are still valid. The team notes that domestic fishermen are

using the area more now than previously, particularly for baitfishing and the developing salt cod fishery.

#### VIII. THE ALFA PROPOSAL TO MAKE SABLEFISH AN EXCLUSIVE LONGLINE FISHERY

The team has not received enough information to evaluate this proposal and therefore does not have a position on it.

#### IX. THE ALFA PROPOSAL FOR A WINTER CLOSURE

The team received no new information on the biology of sablefish which would indicate that there are winter spawning concentrations which need to be protected. The team, therefore, does not recommend a winter closure of the sablefish fishery at this time.

#### X. REPORTING REQUIREMENTS

Based upon the public testimony received and the desire to minimize the regulatory burden of domestic fishermen, the team recommends that domestic fishing vessels report their catch or advise the management agencies by radio or telephone of their departure before leaving Alaskan waters.

#### XI. RECOMMENDATION

This report and the three documents referenced at the beginning have not yet been reviewed by the public. Therefore, the PMT recommends that the Council extend the comment period before taking final action.

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- Balsiger, James W., 1981, "Condition of Sablefish in the Gulf of Alaska in 1981." NMFS, NWAFC
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APPENDIX I  
FOREIGN TRAWLER SABLEFISH AND FLOUNDER CATCHES (MT)

<u>Country</u>	<u>1980</u>		<u>Ratio:</u>
	<u>Sablefish</u>	<u>Flounders</u>	<u>Sablefish</u> <u>Flounders</u>
Japan	735.27	11,484.8	0.064
Korea	270.95	1,733.83	0.156
USSR	<u>416.01</u>	<u>1,838.47</u>	<u>0.226</u>
Total	1,422.23	15,057.1	0.094
	<u>1979</u>		
Japan	471.0	11,993.5	0.039
Korea	7.9	604.4	0.013
USSR	152.1	368.6	0.413
Mexico	<u>54.7</u>	<u>4.8</u>	<u>11.396</u>
Total	685.7	12,971.3	0.053
	<u>1978</u>		
Japan	354.2	13,381.9	0.026
Korea	25.7	295.5	0.087
USSR	<u>4.0</u>	<u>196.4</u>	<u>0.020</u>
Total	383.9	13,873.8	0.028

Source: Observer Program



APPENDIX II  
FOREIGN SABLEFISH ALLOCATIONS AND CATCH

<u>1978</u>	<u>Allocation</u>	<u>Catch</u>	<u>% Taken</u>
Japan	8,750	6,458.3	74%
USSR	100	4.0	4%
Korea	1,000	664.8	66%
Poland	50	0.0	0%
Mexico	<u>100</u>	<u>0.0</u>	<u>0%</u>
Total	10,000	7,127.1	71%
<u>1979</u>			
Japan	7,125	5,919.1	83%
USSR	425	152.1	36%
Korea	985	758.6	77%
Poland	70	0.0	0%
Mexico	<u>200</u>	<u>54.7</u>	<u>27%</u>
Total	8,805	6,884.5	78%
<u>1980</u>			
Japan	5,692.0	4,831.34	85%
USSR	456.3	416.01	91%
Korea	904.0	891.45	99%
Poland	0.0	0.0	0%
Mexico	<u>-</u>	<u>-</u>	<u>-</u>
Total	7,052.3	6,138.80	87%

Appendix II, Continued

<u>1981</u>	<u>Allocation</u>	<u>Catch</u>	<u>% Taken</u>
Japan	7,934.0	3,624.0 <sup>1/</sup> (4,646.0) <sup>2/</sup>	46% (59%) <sup>2/</sup>
Korea	1,616.0	738.5	46%
Poland	426.0	0.1	negligible
West German	<u>0.0</u>	<u>150.0</u>	<u>0%</u>
Total	9,550.1	4,803.5 <sup>1/</sup> (5,825.5) <sup>2/</sup>	50% (61%) <sup>2/</sup>

1/ As of October 12, 1981

2/ Projected for 1981

Sources for Appendix II

1978 - Allocations: Best Blend Reports  
Catch: Observer Program

1979 - Allocations: Best Blend Reports;  
Catch: Observer Program

1980 - Allocations: Best Blend Reports  
Catch: Observer Program

1981 - Allocations: Best Blend Reports  
Catch: Best Blend Reports

Table 1. Estimated Implications of Alternatives 1, 2, and 3: 1981-1985

	1981	1982	1983	1984	1985	1985*
<u>GROWTH CURVE 1</u>						
<u>Alternative 1 (500 t)</u>						
Yield (t)	8,055	499	552	575	574	12,486
Net earnings (\$1000)	-299	6	26	44	51	576
Average weight (lbs/fish western cut)	5.13	5.34	5.61	5.96	6.37	6.36
Real price/fish (\$)	2.43	2.86	3.14	3.59	3.99	3.57
Gross earnings per trip (\$)	9,300	11,300	13,000	14,600	15,166	12,900
Effort (boat year)	54	3	3	3	3	71
<u>Alternative 2 (3,500 t)</u>						
Yield (t)	8,055	3,533	3,817	3,882	3,786	10,581
Net earnings (\$1000)	-299	6	117	209	225	364
Average weight (lbs/fish western cut)	5.13	5.34	5.59	5.93	6.33	6.32
Real price/fish (\$)	2.43	2.78	3.03	3.46	3.83	3.60
Gross earnings per trip (\$)	9,300	10,800	12,200	13,300	13,500	12,300
Effort (boat year)	54	22	22	22	22	64
<u>Alternative 3 (8,200 t)</u>						
Yield (t)	8,055	8,221	8,541	8,371	7,876	5,092
Net earnings (\$1000)	-299	-119	36	144	100	120
Average weight (lbs/fish western cut)	5.13	5.33	5.56	5.88	6.25	6.25
Real price/fish (\$)	2.43	2.66	2.88	3.26	3.61	3.71
Gross earnings per trip (\$)	9,300	10,000	10,900	11,500	11,300	11,700
Effort (boat year)	54	53	53	53	53	34

Table 1 (con't.)

	1981	1982	1983	1984	1985	1985*
<u>GROWTH CURVE 2</u>						
<u>Alternative 1 (500 t)</u>						
Yield (t)	7,965	499	515	504	453	420
Net earnings (\$1000)	-335	-23	-14	-13	-24	-22
Average weight (lbs/fish western cut)	4.96	4.97	5.07	5.27	5.41	5.41
Real price/fish (\$)	2.33	2.52	2.67	2.85	2.98	2.98
Gross earnings per trip (\$)	9,100	9,100	9,700	9,800	9,000	9,000
Effort (boat year)	54	4	4	4	4	4
<u>Alternative 2 (3,500 t)</u>						
Yield (t)	7,965	3,552	3,562	3,393	2,975	388
Net earnings (\$1000)	-335	-200	-169	-188	-280	-32
Average weight (lbs/fish western cut)	4.96	4.96	5.05	5.24	5.37	5.37
Real price/fish (\$)	2.33	2.45	2.58	2.74	2.86	2.93
Gross earnings per trip (\$)	9,100	8,700	9,000	8,800	7,900	8,200
Effort (boat year)	54	26	26	26	26	4
<u>Alternative 3 (8,200 t)</u>						
Yield (t)	7,965	8,215	7,879	7,190	6,062	342
Net earnings (\$1000)	-335	-607	-626	-742	-989	-46
Average weight (lbs/fish western cut)	4.96	4.96	5.02	5.19	5.30	5.30
Real price/fish (\$)	2.33	2.34	2.44	2.59	2.69	2.85
Gross earnings per trip (\$)	9,100	8,100	8,000	7,500	6,500	7,100
Effort (boat year)	54	62	62	62	62	3

(Notes on next page.)

(Notes to Table 1)

These estimates are based on three assumptions: (1) all catch is taken by the domestic fleet; (2) the real ex-vessel prices for small, medium, and large sablefish are assumed to be \$0.0, \$0.30, and \$0.70 per pound western cut; and (3) sablefish under 3 pounds western cut are discarded and the discard mortality rate is 25%.

\*The implications for 1985 if a constant level of fishing effort is exerted in 1982-1984 and the level of effort which produces the greatest net earnings is exerted in 1985.

Table 2. Estimated Cumulative Discounted Net Earnings,<sup>1/</sup> 1982-1985 (\$ million)

Percent of Estimated Value of FC/a <sup>2/</sup>	Growth Curve 1			Growth Curve 2		
	500 t	3,500 t	8,200 t	500 t	3,500 t	8,200 t
20	2.04	3.34	4.59	0.28	1.52	3.06
30	1.84	2.98	4.03	0.24	1.28	2.49
40	1.63	2.62	3.46	0.20	1.03	1.92
50	1.43	2.26	2.90	0.15	0.79	1.35
60	1.23	1.90	2.34	0.11	0.54	0.78
70	1.02	1.54	1.78	0.07	0.30	0.20
80	0.82	1.18	1.23	0.03	0.05	-0.37
90	0.62	0.82	0.66	-0.01	-0.19	-0.94
100	0.41	0.46	0.10	-0.05	-0.44	-1.51
110	0.21	0.10	-0.46	-0.09	-0.69	-2.08
120	0.01	-0.26	-1.02	-0.13	-0.93	-2.65
130	-0.20	-0.62	-1.58	-0.18	-1.18	-3.22
140	-0.40	-0.98	-2.14	-0.22	-1.42	-3.79
150	-0.60	-1.34	-2.70	-0.26	-1.67	-4.36
160	-0.81	-1.70	-3.26	-0.30	-1.91	-4.93
170	-1.01	-2.06	-3.82	-0.34	-2.16	-5.50
180	-1.22	-2.41	-4.38	-0.38	-2.41	-6.07

<sup>1/</sup> The net earnings estimates are based on two assumptions: (1) all catch is taken by the domestic fleet and (2) the real exvessel prices for small, medium, and large sablefish are assumed to be \$0.0, \$0.30, and \$0.70 per pound western cut.

<sup>2/</sup> FC/a equals the ratio of cost per unit effort to the catchability coefficient.