

AMENDMENT #1 TO THE ATLANTIC BUTTERFISH FISHERY MANAGEMENT PLAN

January 1980

Mid-Atlantic Fishery Management Council
in cooperation with the
National Marine Fisheries Service

Draft Amendment #1 Approved by Mid-Atlantic Council: 13 December 1979
Final Amendment #1 Approved by Mid-Atlantic Council: 10 January 1980

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ABBREVIATIONS AND DEFINITIONS USED IN THIS DOCUMENT

CFR - Code of Federal Regulations
cm - centimeter
DAH - Domestic Annual Harvest - the capacity of US fishermen to harvest butterfish and their intent to use that capacity
DAP - Domestic Annual Processing - the capacity of US processors to process butterfish and their intent to use that capacity
EIS - Environmental Impact Statement
FRG - Federal Republic of Germany
FCMA - Fishery Conservation and Management Act
FCZ - Fishery Conservation Zone
fishing year - the 12 month period beginning April 1
FMP - Fishery Management Plan
fork length - length of a fish as measured from the most anterior point to the end of the median rays of the tail.
g - gram
GDR - German Democratic Republic
GIFA - Governing International Fishery Agreement
ICNAF - International Commission for the Northwest Atlantic Fisheries
Kg - killogram
mm - millimeter
MSY - Maximum Sustainable Yield
mt - metric ton = 2204.6 pounds
NMFS - National Marine Fisheries Service
NOAA - National Oceanic and Atmospheric Administration
Nautical mile - approximately 1.15 statute miles
OY - Optimum Yield
PMP - Preliminary Fishery Management Plan
RA - Regulatory Analysis
R/V - Research Vessel
SA - Subarea or Statistical Area
Secretary - Secretary of Commerce
SEIS - Supplemental Environmental Impact Statement
TALFF - Total Allowable Level of Foreign Fishing
U.S.C. - United States Code
USSR - Union of Soviet Socialist Republics
< - less than
≤ - less than or equal to
> - greater than
≥ - greater than or equal to

II. SUMMARY

The Fishery Management Plan (FMP) for Atlantic Butterfish was approved by the Mid-Atlantic Fishery Management Council on 14 June 1979 and approved by the Assistant Administrator for Fisheries, National Oceanic and Atmospheric Administration (NOAA) on 9 November 1979. The FMP is for fishing year 1979-1980 (1 April 1979 - 31 March 1980). The purpose of Amendment #1 is to extend the FMP through the end of fishing year 1980-1981.

The objectives of the FMP are to:

1. Promote the growth of the US butterfish export industry;
2. Minimize cost of harvesting butterfish;
3. Increase employment opportunities for commercial fishermen;
4. Prevent exploitation of the resource beyond that level producing the maximum sustainable yield; and
5. Minimize costs of enforcement and management of the resource.

The management unit for the FMP is all butterfish under US jurisdiction north of Cape Hatteras.

The following management measures are included in the FMP:

1. The fishing year 1979-1980 Optimum Yield (OY) for butterfish is 11,000 metric tons (mt). US harvesting capacity (estimated Domestic Annual Harvest) (DAH) and US processing capacity (estimated Domestic Annual Processing) (DAP) for butterfish for the 1979-1980 fishing year has been estimated to be 7,000 mt. Foreign fishermen, therefore, have been allocated an initial surplus (Total Allowable Level of Foreign Fishing) (TALFF) of 4,000 mt of butterfish.
2. Any owner/operator of a vessel (foreign or domestic) desiring to catch butterfish within the FCZ (other than individual US fishermen for their own use), or transport or deliver for sale any butterfish caught within the FCZ, must possess a valid registration issued by the NMFS.
3. Foreign fishing for butterfish is governed by part 611 of Title 50, Code of Federal Regulations (the Foreign Fishing Regulations).
4. Weekly catch reports must be filed by domestic fishermen possessing a valid registration for the butterfish fishery, and domestic dealers and processors must submit weekly reports on transactions involving butterfish.
5. Any significant fraction of the US butterfish capacity not harvested by US fishermen may be reallocated to foreign fishermen.

Alternatives for Amendment #1 are:

1. Take No Action At This Time - This alternative would mean that the FMP would lapse at the end of fishing year 1979-1980, unless extended by a Secretarial amendment. The National Marine Fisheries Service (NMFS) could be required to prepare a Preliminary Management Plan (PMP) to regulate the foreign fishery.
2. Continue The Current FMP Through Fishing Year 1980-1981 With No Other Changes - The following values would apply to fishing year 1980-1981: OY = 11,000 mt, DAH = DAP = 7,000 mt, and TALFF = 4,000 mt.

3. Increase/Decrease Optimum Yield, Domestic Annual Harvest, Domestic Annual Processing, and/or Total Allowable Level of Foreign Fishing - The probable biological consequences of a wide range of OYs are described in Section V-4 of the original FMP [as updated by the most recent butterfish stock assessment (Appendix I of Amendment #1)]. The MSY for this species, given the present mix of fishing gear, both domestic and foreign, is about 16,000 mt. The stock currently appears able to sustain an annual harvest of that magnitude, barring any significant declines in future recruitment. It is recognized that, if the predominant mesh sizes used in the fishery change significantly, the estimate of MSY will probably require adjustment. The estimates of Domestic Annual Harvest and Domestic Annual Processing were reviewed in June of 1979 and are considered reasonable for fishing year 1980-1981.

Alternative 2 has been adopted as the preferred management option for Amendment #1. The alternatives are discussed in Section XII of Amendment #1.

III. TABLE OF CONTENTS

I. TITLE PAGE.....1

II. SUMMARY.....3

III. TABLE OF CONTENTS.....5

IV. INTRODUCTION.....6

V. DESCRIPTION OF STOCKS.....6

VI. DESCRIPTION OF HABITAT.....6

VII. FISHERY MANAGEMENT JURISDICTION, LAWS, AND POLICIES.....6

VIII. DESCRIPTION OF FISHING ACTIVITIES.....6

IX. DESCRIPTION OF ECONOMIC CHARACTERISTICS OF THE FISHERY.....6

X. DESCRIPTION OF BUSINESSES, MARKETS, AND ORGANIZATIONS
ASSOCIATED WITH THE FISHERY.....6

XI. DESCRIPTION OF SOCIAL AND CULTURAL FRAMEWORK OF DOMESTIC
FISHERMEN AND THEIR COMMUNITIES.....6

XII. DETERMINATION OF OPTIMUM YIELD.....6

XIII. MEASURES, REQUIREMENTS, CONDITIONS OR RESTRICTIONS
PROPOSED TO ATTAIN MANAGEMENT.....8

XIV. SPECIFICATION AND SOURCE OF PERTINENT FISHERY DATA.....9

XV. RELATIONSHIP OF THE RECOMMENDED MEASURES TO EXISTING
APPLICABLE LAWS AND POLICIES.....9

XVI. COUNCIL REVIEW AND MONITORING OF THE PLAN.....9

XVII. REFERENCES.....9

APPENDIX I. STOCK ASSESSMENT.....APP I 1

APPENDIX II. LIST OF PUBLIC MEETINGS AND SUMMARY OF
COMMENTS.....APP II 1

IV. INTRODUCTION

This Amendment #1 to the Atlantic Butterfish FMP is designed to extend the FMP to the end of fishing year 1980-1981 (31 March 1981). The basic data on the fishery has not changed since the revised FMP was adopted by the Mid-Atlantic Fishery Management Council in June, 1979.

Because the original FMP will be implemented near the end of the fishing year, the Council's recommendation for Amendment #1 is to extend the management regime in the original FMP through fishing year 1980-1981. This will provide time for an evaluation of that regime before any changes are made to it.

V. DESCRIPTION OF STOCKS

The most recent stock assessment is reproduced as Appendix I to Amendment #1. No data are presented therein which would warrant any changes to this section or to any management measure.

VI. DESCRIPTION OF HABITAT

No data are available which would necessitate a change to this section of the FMP.

VII. FISHERY MANAGEMENT JURISDICTION, LAWS, AND POLICIES

No data are available which would necessitate a change to this section of the FMP.

VIII. DESCRIPTION OF FISHING ACTIVITIES

No data are available which would necessitate a change to this section of the FMP.

IX. DESCRIPTION OF ECONOMIC CHARACTERISTICS OF THE FISHERY

No data are available which would necessitate a change to this section of the FMP.

X. DESCRIPTION OF BUSINESSES, MARKETS, AND ORGANIZATIONS ASSOCIATED WITH THE FISHERY

No data are available which would necessitate a change to this section of the FMP.

XI. DESCRIPTION OF SOCIAL AND CULTURAL FRAMEWORK OF DOMESTIC FISHERMEN AND THEIR COMMUNITIES

No data are available which would necessitate a change to this section of the FMP.

XII. DETERMINATION OF OPTIMUM YIELD

XII-1. Specific Management Objectives

The Mid-Atlantic Council adopted the following objectives to guide management and development of the butterfish fishery in the northwestern Atlantic. They are:

1. Promote the growth of the US butterfish export industry;
2. Minimize cost of harvesting butterfish;
3. Increase employment opportunities for commercial fishermen;
4. Prevent exploitation of the resource beyond that level producing the maximum sustainable yield; and

5. Minimize costs of enforcement and management of the resource.

XII-2. Description of Alternatives and XII-3. Analysis of Beneficial And Adverse Impacts Of Potential Management Options

Alternatives for Amendment #1 are:

1. Take No Action At This Time - This alternative would mean that the FMP would lapse at the end of fishing year 1979-1980 unless extended by a Secretarial amendment. If there were no Secretarial amendment, the NMFS would be required to prepare a PMP for this fishery.

A PMP would annually set OY and estimate US capacity and, thus, TALFF. A PMP, however, regulates foreign, but not domestic, harvesting. Given the rapidly developing US butterfish fishery, this alternative might benefit US interests in the short-term by allowing free growth of this industry. Within the next few years, however, the US fishery will probably grow if unrestricted to annual levels in excess of the estimated MSY. This would have an adverse impact on US interests in the long-term.

Another effect of reversion to PMP management would be that data on the domestic harvesting and processing industries that would be collected as a result of recordkeeping provisions included in the FMP could not be collected, or could not be collected as effectively. This would seriously limit assessments of the scope and development of the US industry, and would eliminate other fishery and biological information needed to assess optimum yield, US harvesting and processing capacity, condition of the stock, etc.

A reversion to PMP management might also result in relatively large annual reallocations of butterfish to foreign fisheries. The Council believes, for the reasons specified in Section XII-5 of the original FMP, that this would seriously retard the development of the US butterfish (export) fishery.

A Secretarial amendment to extend the FMP would be a reasonable procedure if the Council were to proposing an amendment that would change substantially the management regime for the butterfish fishery. Given the late approval of the basic Butterfish FMP, such a major amendment could not be reviewed and approved prior to the end of the fishing year. Thus, a Secretarial amendment would be required to extend the management regime until the review and approval process could be completed.

2. Continue The Current FMP Through Fishing Year 1980-1981 With No Other Changes - Under this alternative, the values of OY, DAH, DAP, and TALFF would remain the same as those specified in the original FMP (11,000 mt, 7,000 mt, 7,000 mt, and 4,000 mt, respectively). Given the late approval of the basic FMP, this seems to be the only reasonable alternative. It would permit the basic regime to operate for enough time so it could be evaluated before any change is developed. Changing the regime only a few months after implementation would lead to confusion in the fishery by changing the rules almost as soon as fishermen learn what they are.

3. Increase/Decrease Optimum Yield, Domestic Annual Harvest, Domestic Annual Processing, and/or Total Allowable Level of Foreign Fishing - The probable biological consequences of a wide range of OYs are described in Section V-4 of the original FMP (as updated by the most recent butterfish stock assessment, which is Appendix I to this Amendment). The 'practical' MSY for this species (see Section V of the original FMP), given the present mix of fishing gear in this (domestic and foreign) fishery, is about 16,000 mt. The stock currently appears able to sustain an annual harvest of that magnitude, barring any significant declines in future recruitment. It is recognized that if the predominant mesh sizes used in the fishery change significantly in the future, the estimate of MSY will probably

require adjustment. The estimates of DAH and DAP were reviewed in June of 1979 and are considered valid for fishing year 1980-1981.

XII-4. Tradeoffs Between The Beneficial And Adverse Impacts Of The Preferred Management Option

Alternative 2 has been adopted as the preferred management option for fishing year 1980-1981. Since the basic FMP will be implemented close to the end of the current fishing year, the regime in that FMP should operate for enough time to permit an evaluation of its effectiveness before it is amended. It is recognized that, during the public hearing and review process on this draft, additional information may be brought forward that would justify changes to the estimates of DAH and/or DAP. For the butterfish fishery, DAP is defined to include icing and freezing since these are the primary processor functions. Available information from a limited survey of processors indicates that there are no technical constraints on DAP up to the MSY level at this time.

Alternative 2 would have no more impact on foreign nations than the original FMP since the initial TALFF would continue at 4,000 mt and the reallocation provision of the original FMP would be continued. This provision continues the basic policy of the original FMP to provide a butterfish TALFF of a size adequate to permit the harvest of the probable Loligo TALFF.

XII-5. Specification Of Optimum Yield

No changes are required to this section as a result of Amendment #1 except to extend for fishing year 1980-1981 the specification of Optimum Yield and the estimates of Domestic Annual Harvest, Domestic Annual Processing, and Total Allowable Level of Foreign Fishing established in the original FMP. Those quantities are set forth in Table 1.

Table 1. Butterfish MSY, OY, DAH, DAP, and TALFF
(metric tons)

| | |
|----------------------------|--------|
| 'Theoretical' MSY | 21,635 |
| 'Practical' MSY* | 16,000 |
| Optimum Yield | 11,000 |
| Domestic Annual Harvest | 7,000 |
| Domestic Annual Processing | 7,000 |
| TALFF | 4,000 |

* Given the mesh sizes currently in use in the fishery.

XIII. MEASURES, REQUIREMENTS, CONDITIONS, OR RESTRICTIONS PROPOSED TO ATTAIN MANAGEMENT OBJECTIVES

XIII-1. Permits and Fees

No changes are required as a result of Amendment #1.

XIII-2. Time and Area Restrictions

No changes are required as a result of Amendment #1.

XIII-3. Catch Limitations

The fishing year for butterfish shall be the twelve (12) month period beginning 1 April.

The initial Total Allowable Level of Foreign Fishing for butterfish for fishing year 1980-1981 is 4,000 mt.

The initial domestic quota for butterfish for fishing year 1980-1981 is 7,000 mt.

No other changes are required to this section as a result of Amendment #1.

XIII-4. Types of Gear

No changes are required to this section as a result of Amendment #1.

XIII-5. Incidental Catch

No changes are required to this section as a result of Amendment #1.

XIII-6. Restrictions

No changes are required to this section as a result of Amendment #1.

XIII-7. Habitat Preservation, Protection and Restoration

No changes are required to this section as a result of Amendment #1.

XIII-8. Development of Fishery Resources

No changes are required to this section as a result of Amendment #1.

XIII-9. Management Costs and Revenues

It is expected that the costs of implementing the recommended option in Amendment #1 should be essentially the same as the cost of implementing the original FMP.

XIV. SPECIFICATIONS AND SOURCES OF PERTINENT FISHERY DATA

No changes are required by Amendment #1.

XV. RELATIONSHIP OF THE RECOMMENDED MEASURES TO EXISTING APPLICABLE LAWS AND POLICIES

No changes are required as a result of Amendment #1.

XVI. COUNCIL REVIEW AND MONITORING OF THE PLAN

No changes are required as a result of Amendment #1.

XVII. REFERENCES

All requests for information upon which this FMP has been based should be directed to the offices of the Mid-Atlantic Fishery Management Council. References in addition to those in the original FMP are:

Mid-Atlantic Fishery Management Council. 1979. Final environmental impact statement/fishery management plan for the butterfish fishery of the northwest Atlantic Ocean. 114 p.

Waring, Gordon T., Status of the northwestern Atlantic butterfish stock, July 1979. NMFS, Northeast Fisheries Center, Woods Hole Lab., Lab. Reference No. 79-33, July 25, 1979 (revised November 29, 1979).

Introduction

The NW Atlantic butterfish population was assessed by Murawski and Waring (1978). The assessment indicated good recruitment of the 1978 year-class based on preliminary findings from US-USSR juvenile hake surveys and US commercial catch statistics. Autumn 1977, and spring 1978 survey data indicated that total mortality estimates (Z) had declined from previous years and mean weights of the fish had increased. Preliminary findings did not indicate that the optimum yield (OY) of 11,000 mt should be adjusted.

This paper presents updated survey and commercial catch information reported in Murawski and Waring (1978) as well as new age/length data from US research vessels. The implications of this additional information is discussed.

Survey Abundance Indices

Autumn offshore (>27 m) bottom trawl survey data between Cape Hatteras and Southern New England (Figure 1, Table 1) has been found to provide the most consistent and reliable information on the relative abundance of butterfish (Murawski and Waring, 1978). The linear catch per tow index (in numbers) from the autumn 1978 survey declined 15% from the previous year, and was 29.52% below the 11-year average of 114.32. This is the second consecutive decline (Table 1). Likewise linear weight per tow decreased 33.2% to 4.59 kg/tow. Autumn mean weights per fish were 61.0 g, a 16% decrease from the autumn 1977 mean (73.3g, Figure 2). The retransformed weight per tow index, however, increased 2.16% to 3.31 kg/tow in 1978 (Table 1, Figure 3).

The autumn 1978 catch per tow index in numbers was partitioned into age classes using research vessel age/length keys (Tables 6 & 7). The autumn estimate of age 0+ relative abundance (Table 2) was 48.73 fish/tow, 45% above the 1977 estimate but 43% below the 11-year average of 85.01 and 62% below the high 1976 year class index.

Spring linear catch per tow estimates have been used to assess total mortality of various year classes by regressing \log_e catch/tow on age (Murawski and Waring, 1978). The 1979 data is given in Table 3. The decline in the value of Z since the 1976 year class recruited can be attributed to reduced exploitation under FCMA. The spring 1979 catch per tow indices in numbers indicates the abundance of all ages has increased.

Commercial Catch Data

The US commercial harvest of butterfish increased 146.0% from 1977 to 1978, and is the highest observed since 1963 (Table 4). Nominal distant water fleet (DWF) catches, however, declined 69.2% in 1978. The total landings in 1978 of 4,478 mt were the smallest since 1965, and 48.5% below the 16-year average nominal catch of 8,688 mt.

Total distant water fleet catches in 1978 were only 1,324.1 mt, or 33.9% of the total allocation of 3,911 mt (Table 5). Restrictions on by-catch and time and area of fishing were probably at least in part responsible.

The age composition of the catch was determined by applying US and distant water fleet length frequency data to research vessel age/length keys (Tables 5 & 6). In the US food fishery the harvesting was primarily on age 2 (1976 year class) fish.

* Waring, Gordon T., NMFS, Northeast Fisheries Center, Woods Hole Lab., Lab. Reference No. 79-33, July 25, 1979 (revised November 20, 1979).

The US industrial fishery took mostly age 0 (1978 year class) fish. This is not surprising since the industrial fishery uses a small mesh, 66 mm versus 114 mm mesh, in the food fishery. The DWF's catch consisted mainly of age 1 fish followed by age 2 fish (1977 and 1976 year classes, respectively).

Discussion

The 1978 autumn and 1979 spring survey data do not indicate any trend in butterfish abundance. The current abundance is still within the range of values used earlier to calculate maximum average yield (16,000 tons). The total mortality rate of the population has been drastically reduced. As a result of the decline in fishing mortality in recent years the numbers of age 2+ and 3+ fish have increased (Table 3). The sharp decline in total catches in 1977 and 1978 combined with increasing numbers of older fish should maintain or increase spawning potential.

Table 1. Autumn USA Survey Butterfish Catch Per Tow, Strata 1-12, 61-76, 1968-1977

| Year | Catch Per Tow in Numbers | | | Catch Per Tow in Weight (kg) | | |
|------|--------------------------|------------------|---------------|------------------------------|------------------|---------------|
| | Linear | Log _e | Retransformed | Linear | Log _e | Retransformed |
| 1968 | 121.09 | 1.99 | 47.28 | 10.44 | 0.66 | 2.91 |
| 1969 | 76.93 | 2.16 | 57.25 | 5.32 | 0.66 | 2.72 |
| 1970 | 48.29 | 1.13 | 10.74 | 3.07 | 0.34 | 1.06 |
| 1971 | 242.17 | 2.19 | 112.00 | 5.45 | 0.58 | 2.29 |
| 1972 | 86.67 | 1.36 | 20.11 | 3.21 | 0.36 | 1.16 |
| 1973 | 178.03 | 2.35 | 124.08 | 8.39 | 0.75 | 3.70 |
| 1974 | 116.32 | 1.95 | 77.52 | 5.12 | 0.66 | 2.66 |
| 1975 | 52.47 | 1.69 | 36.19 | 2.94 | 0.58 | 1.80 |
| 1976 | 160.31 | 2.32 | 156.60 | 6.71 | 0.86 | 4.15 |
| 1977 | 94.69 | 1.99 | 69.33 | 6.87 | 0.70 | 3.24 |
| 1978 | 80.57 | 2.16 | 94.33 | 4.59 | 0.76 | 3.31 |

Table 2. Estimates of Relative Juvenile (Age 0+) Abundance from NMFS Autumn Offshore Bottom Trawl Surveys, and Total 0+ Stock Size for Year Classes 1968-1977

| Year Class | Autumn Catch per Tow Index (X N/tow Age 0+) | Estimate off 0+ Population Size from VPA (x 10 ⁶) |
|------------|---|---|
| 1968 | 46.19 | 1,684.2 |
| 1969 | 44.61 | 823.3 |
| 1970 | 30.06 | 847.5 |
| 1971 | 231.58 | 1,215.3 |
| 1972 | 79.59 | 1,976.8 |
| 1973 | 135.02 | 1,168.8 |
| 1974 | 92.02 | 1,024.0 |
| 1975 | 29.95 | 368.1 |
| 1976 | 127.50 | - |
| 1977 | 33.60 | - |
| 1978 | 48.73 | - |

Table 3. Calculation of Total Instantaneous Mortality (Z) Utilizing Number per Tow by Age for NMFS Spring Surveys, 1968-1978

| Year | Stratified Number per Tow at Age | | | | Regression Coefficients for Log _e No/Tow vs. Coded Age ¹ | | | |
|------|----------------------------------|--------|-------|-------------------|--|----------------|-------|----------|
| | Class | 0+ | 1+ | 2+ | 3+ | r ² | a | b (= -Z) |
| 1968 | | 11.66 | 2.96 | 1.30 | 0.01 ² | 0.980 | 3.462 | -1.097 |
| 1969 | | 10.04 | 2.36 | 1.24 | 0.31 | 0.981 | 3.322 | -1.108 |
| 1970 | | 26.36 | 4.22 | 8.00 | 0.33 | 0.768 | 4.546 | -1.250 |
| 1971 | | 313.31 | 40.17 | 3.78 ² | 0.17 ² | 1.000 | 7.801 | -2.054 |
| 1972 | | 44.09 | 9.05 | 1.89 | 0.18 | 0.989 | 5.745 | -1.807 |
| 1973 | | 22.12 | 6.88 | 1.82 | 0.02 | 0.972 | 4.918 | -1.576 |
| 1974 | | 162.24 | 5.12 | 0.62 | 0.01 | 0.981 | 7.650 | -2.785 |
| 1975 | | 36.40 | 5.32 | 0.20 | 0.17 | 0.913 | 5.310 | -1.936 |
| 1976 | | 3.80 | 2.07 | 1.85 | --- | 0.861 | 1.617 | -0.360 |
| 1977 | | 4.25 | 4.27 | --- | --- | --- | --- | --- |
| 1978 | | 6.89 | --- | --- | --- | --- | --- | --- |

¹ Coded Ages A_i = 1, 2, 3,.....n for Ages 0+, 1+, 2+....N+
² Not included in regression

Table 4. Nominal Landings (mt, ICNAF SA 4-6) by Country, and Adjusted Total Catches^a, 1963-1978

| Year | USA | Japan | USSR | Poland | Bulgaria | GDR | Romania | Others | Nominal Total | Adjusted Catch |
|------|-------|--------|--------|--------|----------|-----|---------|------------------|---------------|----------------|
| 1963 | 4,513 | --- | 2,285 | --- | --- | --- | --- | --- | 6,798 | 6,798 |
| 1964 | 2,461 | --- | 748 | --- | --- | --- | --- | --- | 3,209 | 3,209 |
| 1965 | 3,340 | --- | 749 | --- | --- | --- | --- | --- | 4,089 | 4,089 |
| 1966 | 2,615 | --- | 3,865 | --- | --- | --- | --- | --- | 6,480 | 6,480 |
| 1967 | 2,452 | 146 | 2,170 | --- | --- | --- | --- | --- | 4,768 | 4,768 |
| 1968 | 1,804 | 3,526 | 1,911 | --- | --- | --- | --- | --- | 7,241 | 7,241 |
| 1969 | 2,438 | 3,930 | 11,107 | --- | 36 | --- | --- | --- | 17,511 | 17,816 |
| 1970 | 1,869 | 8,624 | 404 | --- | --- | --- | --- | --- | 10,897 | 14,319 |
| 1971 | 1,570 | 5,771 | 486 | --- | 26 | --- | --- | --- | 7,853 | 10,483 |
| 1972 | 819 | 3,675 | 1,848 | --- | 114 | 34 | --- | --- | 6,490 | 13,040 |
| 1973 | 1,557 | 12,172 | 2,334 | 2,804 | 239 | 196 | 152 | --- | 19,454 | 33,236 |
| 1974 | 2,528 | 5,457 | 1,372 | 3,508 | --- | --- | --- | --- | 12,865 | 17,993 |
| 1975 | 2,088 | 3,624 | 789 | 3,754 | 298 | 1 | --- | 612 ^b | 11,166 | 14,852 |
| 1976 | 1,528 | 7,884 | 420 | 1,518 | 4 | 3 | 62 | --- | 11,419 | 15,837 |
| 1977 | 1,447 | 1,750 | 419 | 280 | --- | --- | 16 | 381 ^c | 4,293 | 4,293 |
| 1978 | 3,563 | 651 | 14 | --- | --- | --- | 56 | 603 ^d | --- | --- |

^a Adjusted to account for discards of countries not reporting butterflyfish catches from the Loligo fishery

^b Ireland

^c Spain = 105, Italy = 60, Cuba = 111, Canada = 105

^d Spain = 156, Italy = 354, Mexico = 93

Table 5. Total Reported Landings (mt) of Butterfish from US Waters and Allocations for 1978

| <u>Country</u> | <u>Catch to Date</u> | <u>1978 Allocation</u> | <u>Percent Taken</u> |
|----------------|----------------------|------------------------|----------------------|
| Bulgaria | 0.0 | 0 | 0.0 |
| France | 0.0 | 2 | 0.0 |
| FRG | 0.0 | 105 | 0.0 |
| GDR | 0.0 | 185 | 0.0 |
| Italy | 354.0 | 501 | 70.7 |
| Japan | 651.2 | 672 | 96.9 |
| Mexico | 93.0 | 1,263 | 7.4 |
| Poland | 0.0 | 67 | 0.0 |
| Romania | 56.0 | 150 | 37.3 |
| Spain | 156.0 | 1,053 | 14.8 |
| USSR | 14.0 | 100 | 14.0 |
| Subtotal | 1,324.2 | 3,911 | 33.9 |
| USA | 3,563.3 | - | - |
| TOTAL | 4,887.5 | | |

Table 6. 1978 Spring Age/Length Key for Butterfish from R/V Data Collected in Southern New England - Mid-Atlantic Sampling Strata (1-12, 61-76)

| <u>Fork Length (cm)</u> | <u>Ages</u> | | | | <u>Total</u> |
|-------------------------|-------------|-----------|-----------|-----------|--------------|
| | <u>0+</u> | <u>1+</u> | <u>2+</u> | <u>3+</u> | |
| 1 | - | - | - | - | - |
| 2 | - | - | - | - | - |
| 3 | - | - | - | - | - |
| 4 | - | - | - | - | - |
| 5 | - | - | - | - | - |
| 6 | - | - | - | - | - |
| 7 | - | - | - | - | - |
| 8 | - | - | - | - | - |
| 9 | 2 | - | - | - | 2 |
| 10 | 10 | - | - | - | 10 |
| 11 | 14 | - | - | - | 14 |
| 12 | 18 | - | - | - | 18 |
| 13 | 13 | - | - | - | 13 |
| 14 | 9 | 1 | - | - | 10 |
| 15 | 3 | 5 | - | - | 8 |
| 16 | 1 | 18 | - | - | 19 |
| 17 | 1 | 26 | - | - | 27 |
| 18 | - | 17 | 8 | - | 25 |
| 19 | - | 11 | 3 | 2 | 16 |
| 20 | - | 1 | 3 | - | 4 |
| 21 | - | 1 | 2 | - | 3 |
| Total | 71 | 80 | 16 | 2 | 169 |
| Average Length | 12.1 | 17.2 | 18.9 | 19.0 | 15.2 |

Table 7. 1978 Autumn Age/Length Key for Butterfish from R/V Data Collected in Southern New England - Mid-Atlantic Sampling Strata (1-12, 61-76)

| Fork Length (cm) | Ages | | | | | Total |
|------------------|------|------|------|------|----|-------|
| | 0 | 1 | 2 | 3 | 4 | |
| 1 | -- | -- | -- | -- | -- | -- |
| 2 | -- | -- | -- | -- | -- | -- |
| 3 | 1 | -- | -- | -- | -- | 1 |
| 4 | 12 | -- | -- | -- | -- | 12 |
| 5 | 12 | -- | -- | -- | -- | 12 |
| 6 | 23 | -- | -- | -- | -- | 23 |
| 7 | 22 | -- | -- | -- | -- | 22 |
| 8 | 26 | -- | -- | -- | -- | 26 |
| 9 | 21 | -- | -- | -- | -- | 21 |
| 10 | 55 | -- | -- | -- | -- | 55 |
| 11 | 41 | 1 | -- | -- | -- | 42 |
| 12 | 34 | 12 | -- | -- | -- | 46 |
| 13 | 19 | 21 | -- | -- | -- | 40 |
| 14 | 9 | 35 | 2 | -- | -- | 46 |
| 15 | 2 | 57 | 5 | -- | -- | 64 |
| 16 | -- | 58 | 25 | -- | -- | 83 |
| 17 | -- | 30 | 65 | -- | -- | 95 |
| 18 | -- | 24 | 84 | 1 | -- | 109 |
| 19 | -- | 9 | 52 | 2 | -- | 63 |
| 20 | -- | -- | 23 | 1 | -- | 24 |
| 21 | -- | -- | 6 | 1 | -- | 7 |
| 22 | -- | -- | 2 | -- | -- | 2 |
| Total | 277 | 247 | 264 | 5 | -- | 793 |
| Average Length | 9.4 | 15.4 | 18.0 | 19.4 | -- | 14.2 |

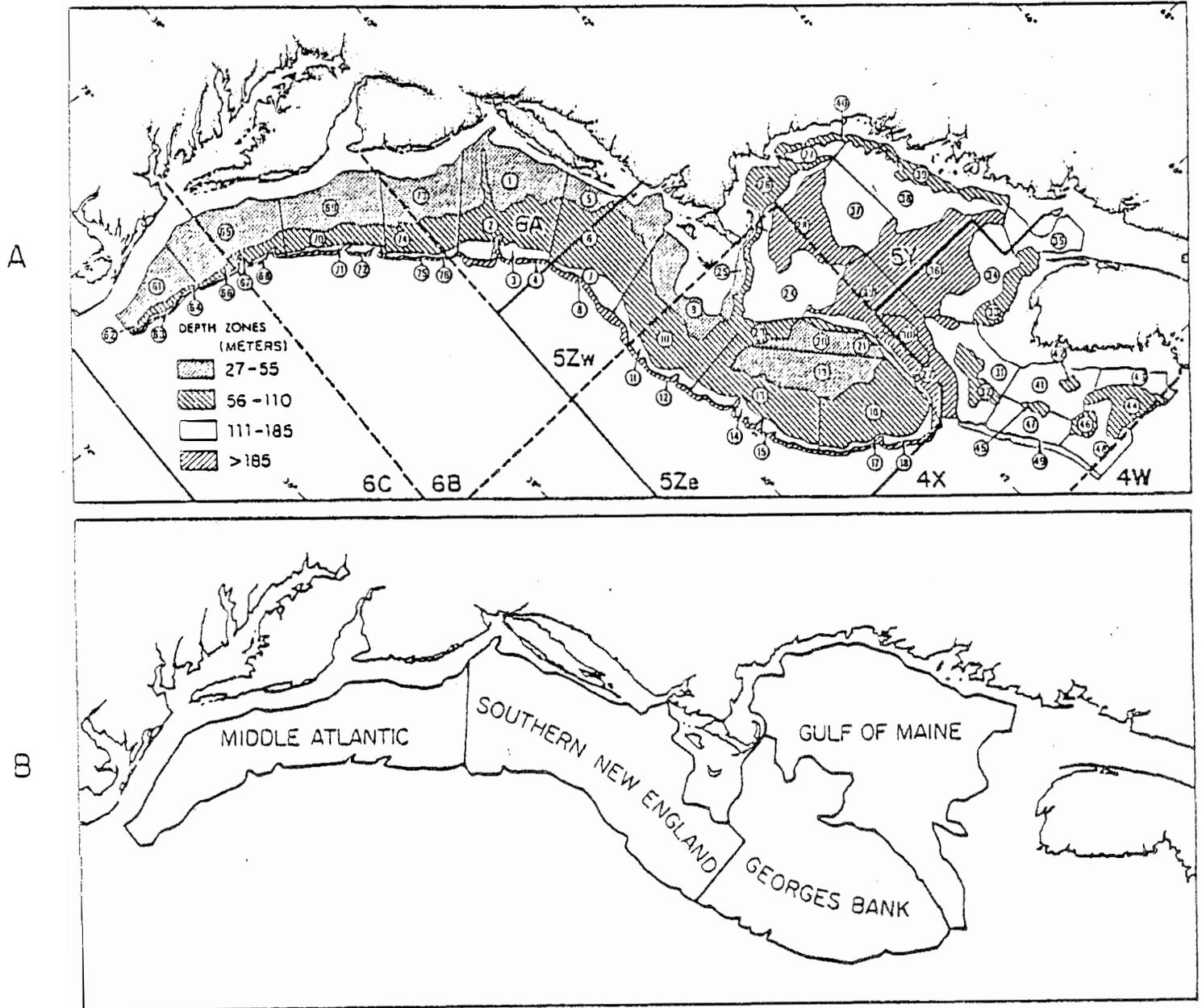


Figure 1. International Commission for the Northwest Atlantic Fisheries (ICNAF) Subareas 4W-5Zw; and Statistical Areas 6A-6C, with USA bottom trawl survey strata (A); and regional designations of strata sets (B).

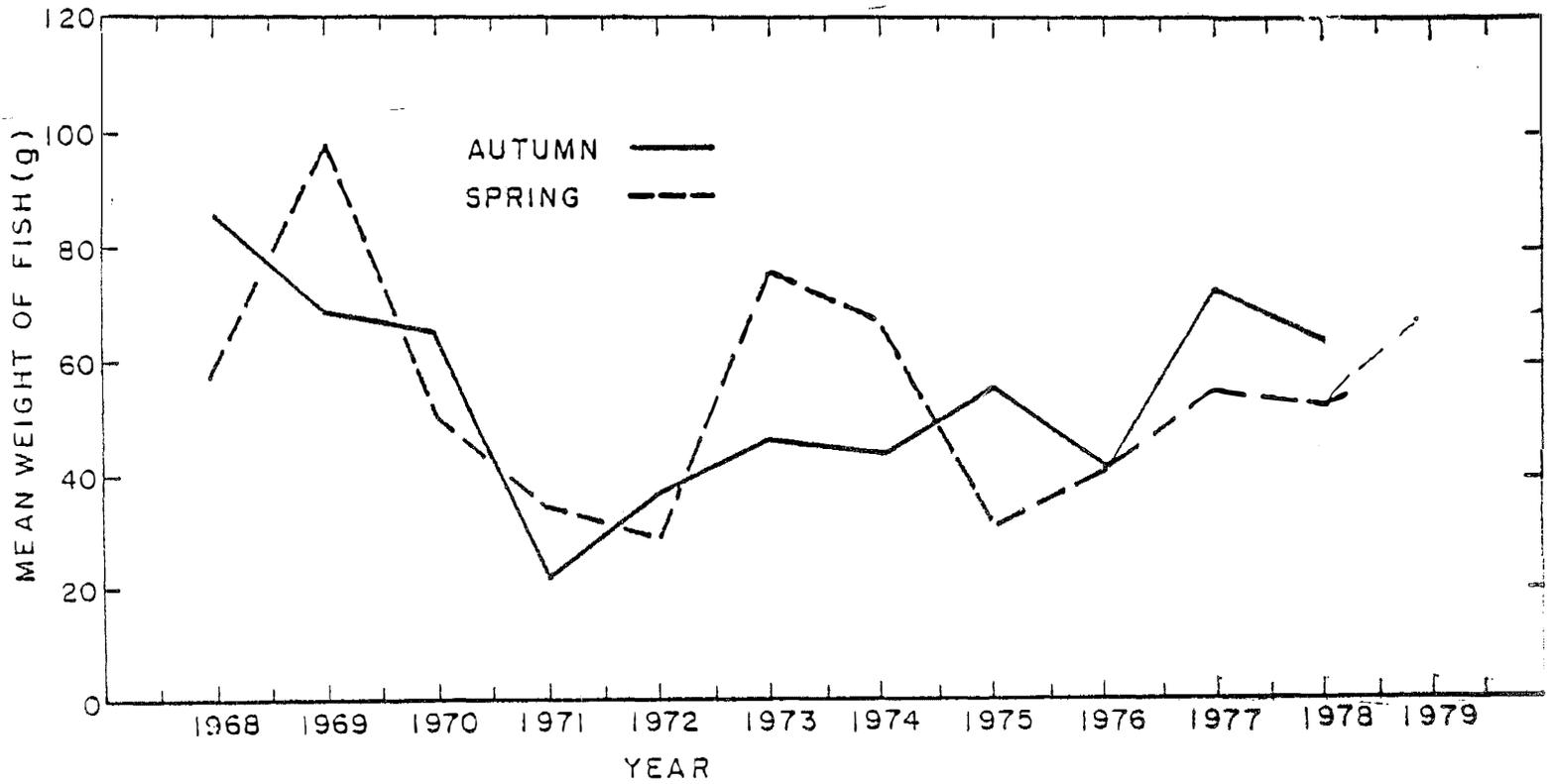


Figure 2. Mean weight of butterfish (g) taken from the Southern New England and Middle Atlantic areas during USA research vessel surveys, 1968-1977.

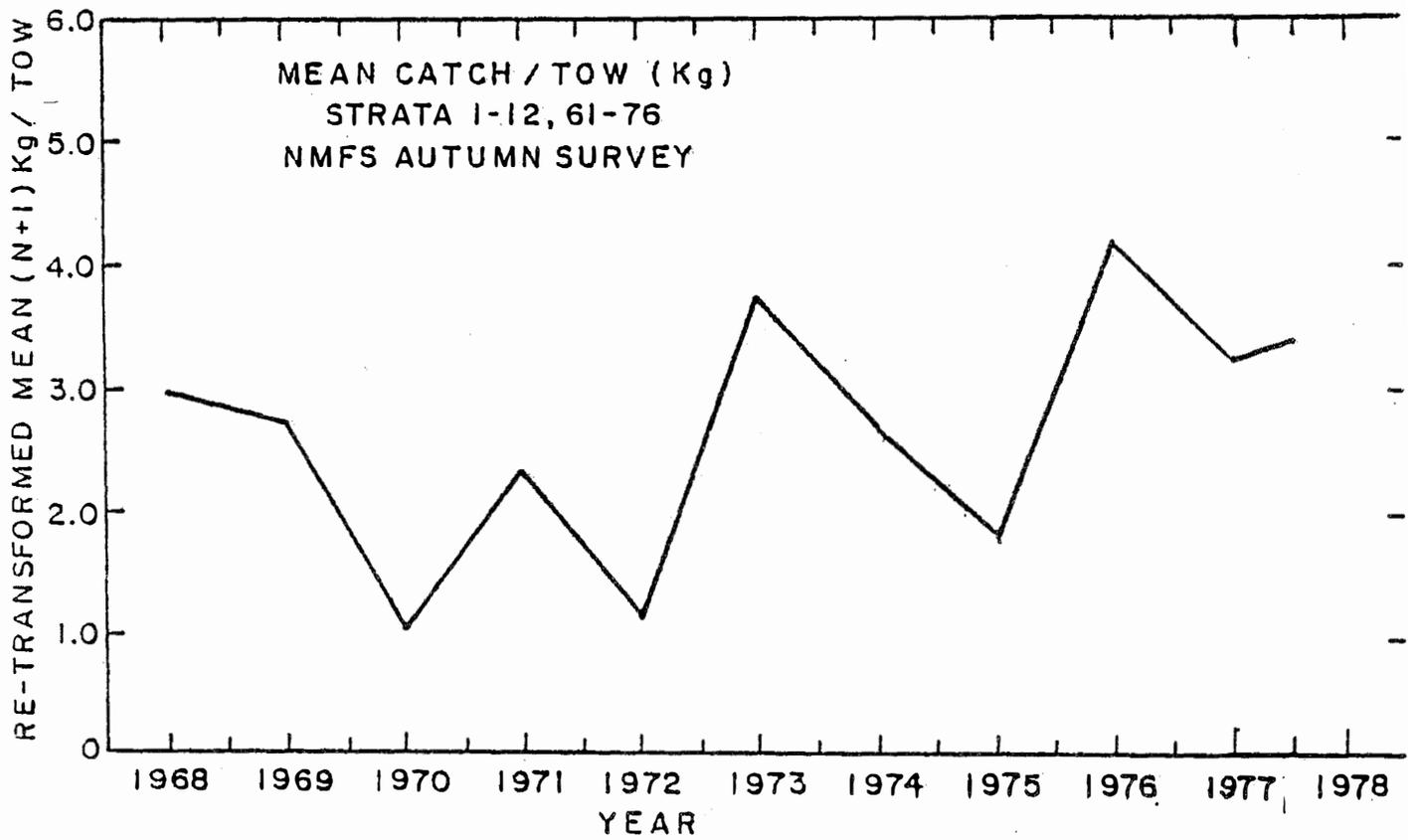


Figure 3. Retransformed catch per tow (kg) from the Southern New England and Middle Atlantic areas during autumn USA research vessel surveys 1968-1977.

APPENDIX II. LIST OF PUBLIC MEETINGS AND SUMMARY OF COMMENTS

| <u>Location</u> | <u>Date</u> | <u>Number of Public Attending*</u> |
|------------------|----------------|------------------------------------|
| Galilee, RI | 7 January 1980 | 27 |
| Riverhead, NY | 8 January 1980 | 16 |
| Philadelphia, PA | 9 January 1980 | 2 |

* Does not include Council, Federal, or State personnel

7 JANUARY 1980 - GALILEE, RI

The meeting began at approximately 7:10 pm with Ms. Nancy Goell, Mid-Atlantic Council member, as moderator. Also present were Messrs. Jacob Dykstra and Robert Lowry (New England Fishery Management Council members), Mr. Sal Testaverde (National Marine Fisheries Service Northeast Regional Office), and Mr. David R. Keifer (Mid-Atlantic Council staff). Twenty-seven members of the public were present.

Ms. Goell reviewed proposed Amendment #1 to the Atlantic Butterfish Fishery Management Plan.

Opposition was indicated to processor reporting, one person stating that there is no basis in the FCMA for processor reporting.

Many persons stated that there should be no TALFF until the US export fishery develops since US fishing vessels have the capacity to catch the Optimum Yield if there is a stable market.

The representative of the Pt. Judith Co-op indicated that they preferred the lowest possible TALFF but supported Alternative #2 in Amendment #1 if there are no other options that would keep the FMP in operation after 31 March 1980.

One person stated that foreign nations should not be permitted to trade allocations.

One person suggested that the fishing year should be changed since the most important months in the US butterfish fishery are the winter months. He recommended that the fishing year should be September through August.

It was suggested that there must be 100% observer coverage on all foreign vessels in order to insure that foreign fishermen report their entire catch.

The hearing was closed at approximately 8:15 pm.

8 JANUARY 1980 - RIVERHEAD, NY

The hearing began at approximately 7:20 pm with Mr. Anthony Taormina, Mid-Atlantic Council member, as moderator. Also present were Mr. Sal Testaverde (National Marine Fisheries Service Northeast Regional Office), and Mr. David R. Keifer (Mid-Atlantic Council staff).

Mr. Keifer reviewed proposed Amendment #1 to the Atlantic Butterfish Fishery Management Plan.

Mr. Alan Macnow presented a statement on behalf of the Japan Fisheries Association (Attachment A).

It was indicated that the Mid-Atlantic Fisheries Development Foundation was working to be able to supply technical assistance to fishermen.

There was a discussion on favor of providing incentives, through additional allocations, to foreign nations purchasing US harvested butterfish.

The representative of Seafood Packers indicated they have an agreement with the Japanese to purchase two million pounds of 3 1/2 oz. butterfish.

It was suggested that the Council should take an active role in helping to resolve the catch reporting problems that exist between US fishermen and the National Marine Fisheries Service.

Dr. William Muller, Chairman of the Council's Squid and Butterfish Advisory Subpanel, indicated that it was important that the Council get good data upon which to base plans and amendments.

The hearing was closed at approximately 8:45 pm.

9 JANUARY 1980 - PHILADELPHIA, PA

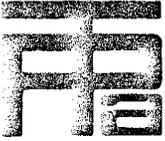
The hearing began at approximately 7:20 pm. Arthur Fass, Mid-Atlantic Council member, was moderator. Other Council members present were Messrs. Allen Peterson and Douglas Gordon. Others present were Mr. Sal Testaverde (National Marine Fisheries Service Northeast Regional Office), Mr. Richard Goldsmith (NOAA General Counsel), Mr. Edgar Bowman (Northeast Fisheries Center), Ms. Pam Lunsford (Maryland Fisheries Administration), Mr. Bruce Halgren (New Jersey Division of Fish, Game, and Shellfish), Mr. Michael Street (South Atlantic Fisheries Management Council), and Messrs. John Mason and David R. Keifer (Mid-Atlantic Council staff). Two members of the public were present.

Mr. Keifer reviewed proposed Amendment #1 to the Atlantic Butterfish Fishery Management Plan.

Mr. Alan Macnow presented a statement on behalf of the Japan Fisheries Association (Attachment A).

Mr. Testaverde asked why the Japanese had not caught their allocation during 1979. Both Messrs. Macnow and Miyamoto indicated they did not know, but Mr. Miyamoto indicated he thought it might be because the allocation was so low the Japanese did not expend substantial effort.

The hearing was closed at approximately 7:45 pm.



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COMMENTS ON THE PROPOSED AMENDMENT #1 TO THE
 BUTTERFISH FMP

Submitted to the Mid-Atlantic Fishery Management Council,
 January 7, 1980

The Mid-Atlantic Fishery Management Council, in the December 21, 1979 Federal Register, solicited comments on the proposed Amendment #1 to the Butterfish FMP. Among other things, the Amendment proposes to establish an optimum yield (OY) for butterfish in the northwest Atlantic of only 11,000 mt, an amount substantially below the conservative maximum sustainable yield (MSY) of 21,635 mt. The Amendment also proposes to establish the total allowable level of foreign fishing (TALFF) at 4,000 mt, an amount which in the opinion of the Council will be sufficient to provide for an unavoidable bycatch of butterfish in the Loligo squid fishery.

In response to the Council's request for comments, we are

herewith submitting the following on behalf of our clients, the Japan Fisheries Association and the Japan Deep Sea Trawlers' Association:-

1. OY Set Too Low

According to the Fisheries Management Plan (FMP), the most conservative estimate of butterfish in the northwest Atlantic management area is 21,635 mt. Under previous preliminary management plans, the optimum yield (OY) was set at 18,000 mt in 1978 and 16,000 mt in 1979 to take into account variations in sustainable yield resulting from use of a variety of net mesh sizes. Under the FMP, the 'practical' OY was set at 16,000, but lowered substantially to 11,000 mt to provide 'a restraint of the foreign fishery' by eliminating the possibility that foreign fishing vessels can catch more than by-catch amounts of the species.

From a purely biological point of view, the OY is set too low in view of the fact that the total catch of butterfish by U.S. and foreign fishermen since the beginning of fishery management has been only a fraction of the OYs. In 1977, only 4,293 mt of butterfish were caught by foreign and domestic fleets, leaving almost 14,000 mt available for harvest uncaught. In 1978, only 6,341 mt of the 18,000 was harvested, leaving 11,659 mt uncaught. Even allowing for 50% natural mortality, at least 12,000 mt of butterfish should have been carried over into the 1979 fishing season and added to the 16,000 mt OY.

In addition, although final data are not yet available, it appears that substantially less than half of the 1979 OY has been harvested, providing a large carryover of harvestable fish into 1980, which should be added to the OY.

2. Reasons for Low OY Lack Justification

Establishment of a low OY of 11,000 mt to keep foreign fishing for butterfish solely at bycatch levels lacks justification. And the assumption that U.S. exports of American-caught butterfish might be affected by an increased TALFF is unwarranted by a close examination of the facts.

The butterfish FMP and Regulatory Analysis cited Japan as the major market for butterfish. Before implementation of the Fisheries Conservation and Management Act (FCMA), from 1970 to 1976, the Japanese butterfish catch from what is now the Fishery Conservation Zone (FCZ) averaged 6,562 mt. With implementation of the FCMA, Japan's butterfish catch in the Atlantic FCZ was cut to 1,750 mt in 1977, a loss of 4,812 mt from the average annual catch. But far from producing an equivalent demand for American-caught butterfish, exports to Japan were negligible. In 1978, Japan's catch of butterfish in the Atlantic FCZ declined to 651 mt, a reduction of almost 6,000 mt from the 1970-1976 average. In that year Japan, seeking to contribute to the development of

of the U.S. fishing industry, bought 2,000 mt of U.S. caught butterfish, an amount still substantially less than the 6,000 mt apparent loss in supply.

In 1979, Japan's allocation of butterfish was cut again, to 358 mt. This was a loss in catch from the average of 6,562 mt of 6,204 mt, a reduction in apparent supply of 95 percent. Despite this substantial loss, current indications are that U.S. exports of butterfish to Japan in 1979 will be significantly lower than 2,000 mt, due to severe quality problems with the American-caught fish. Also, without relatively high volume sales, sustained by substantial Japanese landings, to maintain a market for Atlantic butterfish, the species has lost its appeal to the high volume institutional market. The institutional market has little interest in a low volume, low profit product.

3. Increased TALFF Not Likely To Impede U.S. Fishery Development

The assumption that an increased TALFF will impede U.S. development of the butterfish fishery is unwarranted.

Given the fact that Japan is the major market for U.S.-caught butterfish, a substantial increase in the TALFF will have little if any effect on the U.S. harvest or export potential.

In 1979, Japan's allocation of butterfish from the Atlantic FCZ was 358 mt out of a total TALFF of 4,000 mt. As can be seen, with 12 nations in the fishery, Japan's share was only 9 percent. Even

if the TALFF were raised from 4,000 mt to 9,000 mt, therefore, Japan's share would total only 810 mt, an amount less than half of what Japan caught in 1978 when U.S. butterfish exports were 2,000 mt.

As 810 mt is still a loss of 5,752 mt from average Japanese landings in the 1970-1976 period, the potential for the U.S. fishery to achieve a 7,000 mt domestic annual harvest (DAH), composed of a 1,500 mt domestic market and a 5,500 mt export market, would be unimpaired.

4. Inadequate TALFF Created Competition

A reduction in foreign fishing in the FCZ does not, in itself, create an export market for U.S.-caught fish. To the contrary, it more often forces foreign fishermen and importers to seek alternative sources of supply.

Prime evidence of this can be seen in the fact that foreign catches off the coasts of the United States were reduced by 1.9 million metric tons when the FCMA was implemented, but U.S. exports between 1973 and 1978 increased by only 95,000 mt. At that, 63,000 mt of the increase, or 71 percent, came from the export of salmon and crab, species from which foreigners were restricted even before implementation of the FCMA.

The fact that reductions in foreign catch do not necessarily lead to the development of an equivalent American fishery for export of the species was graphically underlined in an April 3, 1979 report by the Comptroller General of the United States. The report, entitled The Fishery Conservation and Management Act's Impact on Selected Fisheries, concluded that in the New England Groundfish Fishery, "Although domestic fishermen have basically displaced foreign fishing, so-called underutilized groundfish species, which the act encouraged to be fished are not being fished as expected. These fish, which are relatively abundant, are not even being harvested at pre-act levels. In effect, the foreign catches of these underutilized species have not been replaced by increased domestic fishing."

This study shows that the foreign catch of the underutilized groundfish species in this fishery totaled 279.7 million pounds in 1975, and was reduced to a total of 34.4 million pounds in the first 10 months of 1978.

Undoubtedly, foreign fishing has been massively displaced from U.S. waters, to the extent of losing 1.9 million mt of fish. But why have not the displaced foreigners been replaced by American fishermen? The answers are:- (a) that the foreigners were displaced to another place where they could catch similar or substitute fish, and (b) other coastal

nations, following the U.S. 200-mile lead, developed fisheries where none had been before, and were eager to sell their products to foreign fish consuming nations at more competitive terms than Americans.

In the face of these facts, it may reasonably be concluded that the displacement of foreign fishermen from their traditional fisheries in U.S. waters may only serve to provide greater competition for American fishermen seeking to develop the underutilized species. U.S. development policy may be better served by seeking to supplement foreign catches in U.S. waters than by reducing foreign catches.

5. Atlantic Butterfish Readily Replaceable

The Butterfish FMP mistakenly compares the butterfish market with the salmon and crab market. The claim is made in the FMP that a reduced TALFF leads to an increase in exports and gives Alaskan crab and salmon exports as examples.

To compare butterfish with salmon and Alaskan crab, however, is like comparing apples and oranges. Both salmon and crab are high value, very unique species which are found only in limited areas of the world. There is no substitute for salmon, king crab, or tanner crab in the premium market, while substitutes for butterfish on Japanese tables range from sea bream to jack mackerel, both of which are preferred over butterfish. Pomfrets, pompanos and stromatees also substitute. Butterfish has a market by virtue of its lower price. In the words of the

regulatory analysis prepared by the Council to accompany the FMP:-
"Demand is very sensitive to the export price from the United States
as well as the quality of the product."

Neither salmon nor crab are as price sensitive as butterfish,
another fact which invalidates the comparison.

Compared to salmon and Alaskan crab, which are relatively
specifically located in limited areas, butterfish and butterfish substitutes
can be found the world over, precluding any attempts to monopolize the
supply.

With the loss of butterfish catches in the northwest Atlantic,
sources of supply were developed off the coasts of New Zealand, Australia,
and mainland China. Last year, Japan obtained 4,500 mt of butterfish-like
silverfish from Australia, 8,000 mt of butterfish from the East China Sea,
and over 20,000 mt from the waters around New Zealand.

Atlantic butterfish does differ from the Pacific varieties, a
factor which can make it difficult to market if it is available only in small
quantities. While its smaller size makes it convenient for single servings,
lack of a consistent high quality supply has discouraged institutional users.

Incidentally, Japanese tanner crab quotas under a bi-lateral
agreement with the U.S. before implementation of the FCMA were 12,000 mt
annually. Under the FMP, it was raised to 15,000 mt, a move which did

not impair U.S. exports of tanner crab to Japan. In fact, U.S. exports, which were almost negligible at the time of the bi-lateral agreement, increased to 14,385 mt in 1978. Demand increased because the increased availability of the product allowed it to be introduced to more consumers.

Similarly, U.S. salmon exports to Japan increased well beyond the quantities lost by Japan in the U.S. FCZ, again due to the fact that greater availability from large U.S. harvests helped to expand the market.

6. Low OY Appears to Violate National Standard #5

The low OY in the Butterfish FMP, and Amendment #1 appears to violate National Standard #5 in the FCMA.

The National Standard requires that:-

"Conservation and management measures shall, where practicable, promote efficiency in the utilization of fishery resources, except that no such measure shall have economic allocation as its sole purpose."

The aim of the management measure setting the OY for butterfish at the very low level of 11,000 mt is not the conservation of the resource. The FMP points out that 16,000 mt to 18,000 mt OY will adequately conserve the resource. Indeed, if 16,000 mt to 18,000 mt of butterfish can readily be harvested as food annually, a limitation on the harvest to 11,000 mt will waste 5,000 mt to 7,000 mt of available food resources annually, something which is certainly not consistent with the requirement in the Standard to 'promote efficiency in the utilization of fishery resources'.

The FMP has not demonstrated any ecological or social benefit to be derived from reducing the OY to 11,000 mt.

The sole purpose of the reduction of the OY to 11,000 mt is the questionable one of economic allocation: the allocation of a small by-catch allowance to foreign fishermen in order to provide an assumed economic benefit, which may be unobtainable through these means.

7. Intent and Letter of the Law Contravened

The attempt of the FMP and Amendment #1 to deprive foreign fishermen of the right given them under the law to harvest fully those fish which are surplus to conservation requirements and the U.S. domestic catch is contrary to both the intent and the letter of the FCMA. Congress, in passing the FCMA, made it very clear that foreign fishermen were entitled to harvest the surplus, which would not be utilized by U.S. fishermen. By doing so, Congress intended to prevent waste of renewable protein resources, and to ensure reciprocity for U.S. distant water fishermen. Congress was particularly concerned that no group of American fishermen would be disadvantaged by passage of the FCMA.

Yet, by manipulating the OY to deprive foreign fishermen of their legal opportunity to harvest surplus fish from a fishery, the Butterfish FMP and Amendment jeopardize American distant water fishermen who depend for their livelihoods on the reciprocal privilege granted them to harvest fish off the coasts of other nations.

This is no small or insignificant group. It comprises almost 30 percent of U.S. food fishermen. America's distant water fishermen land over half a billion pounds of fish and shellfish, worth \$235 million. The value of the fish which they bring back to the United States accounts for 26% of the value of all fin fish landed for food in the United States.

If these U.S. fishermen were not permitted to catch fish off the coasts of other nations, U.S. imports of fish would have to increase by over half a billion dollars to compensate for the loss.

But, if the Butterfish FMP succeeds in manipulating fish surpluses to reduce the catch of foreign fishermen, foreign nations will feel free to engage in the same type of manipulation to exclude U.S. fishermen from their waters.

The danger inherent in manipulating surpluses may also pose a grave risk to the future development of the U.S. fishing industry. Envisioned in this development is the construction and operation of large trawler-processor vessels with the power and mobility to harvest large quantities of fish from the FCZ in a short period of time. It is not unlikely that, to maintain efficient operation throughout the year, they will have to seek fish off the coasts of Africa and South America. It would be extremely unwise, therefore, to impair the future ability of U.S. vessels to fish off the coasts of other nations by any actions which would violate the principles of full utilization and reciprocity embodied in

rational fishery conservation and management programmes.

8 Low TALFF Impairs Ability to Catch Other Species

Butterfish inhabit the same waters and areas as Loligo squid, and are an unavoidable by-catch of the Loligo squid fishery. As only a small fraction of the butterfish OY has been caught since 1976, butterfish currently are very abundant. It now is hard to boat squid without hauling in a net containing a high proportion of the fish.

The FMP and the Amendment, however, have failed to treat butterfish as a stock which is inter-related with Loligo squid, as required by National Standard #2 of the FCMA.

The State Department, in a letter to the National Marine Fisheries Service dated October 2nd, 1978, rightly pointed out that in maintaining the TALFF of butterfish at a 4,000mt level, foreign fishing for Loligo squid might be constrained. The State Department letter noted that in 1978 foreign butterfish by-catch allocation for Loligo was set at 4,000 mt for a foreign Loligo squid allocation of 19,000 mt. But, although, the surplus of Loligo squid available for foreign harvesting increased in 1979 to 30,000 mt, there was no comparable increase in the by-catch allocation of butterfish, which continued to be set at 4,000 mt.

Both the FMP and the Amendment also fail to provide a mechanism for increasing the butterfish TALFF to provide adequate by-catch allowances for possible mid-season re-allocations to TALFF of Loligo squid unutilized by U.S. fishermen. In this, too, the requirement to manage inter-related stocks as set forth in National Standard #2 has been ignored.

9 Restriction to By-Catch Fishery Unnecessary and Inappropriate

The restriction of the foreign butterfish harvest to solely a by-catch fishery is unnecessary, inappropriate, and may be a violation of the FCMA.

Such a restriction is unnecessary because, with 12 nations in the fishery, none can take a large enough quantity of butterfish to make a viable market without the addition of large quantities of the American-caught fish.

It is inappropriate because it will not achieve its objective of creating an atmosphere conducive for the development of U.S. butterfish exports. In its initial stages, an export market aimed at mass consumption through large volume institutional outlets can only be built upon the availability of a consistent, large volume supply of a particular species of fish, something which U.S. processors are not yet able to provide.

And finally, the FCMA requires that fish surplus to conservation needs and U.S. harvests should be made fully available to foreign fishermen, not restrictively allocated for any particular purpose.

10. Export Markets Can Be Developed by Cooperation, Not Coercion

In 1978, Japan bought 62% of the food fish exported by the United States. As of September 1979, Japan's imports of U.S.-caught fish had increased 23% over the comparable period the year before.

Japan is a large importer of seafoods, but the Japanese market does not have an unlimited capacity to absorb imports. The Japanese market is very selective, extremely quality conscious and price sensitive.

With the onset of 200-mile jurisdictions, scores of coastal nations have developed, and are in the process of developing, their marine resources. Any many are targeted at the Japanese market.

Contrary to popular belief, the Japanese fisheries industries do not work together in pursuit of common goals. In reality, they are very highly competitive, battling each other for a predominant share of resources and markets.

Japanese fisheries markets are served not only by the country's fishing industries, but also by highly competitive importing companies, some of which are among the largest multi-national corporations in the world. These importing companies, termed trading companies,

raised Japan's fish imports by 219 % between 1967 and 1977, a period during which Japanese fishing landings increased by almost 3 million mt. At present, the trading companies are scouring the fishing ports of the world for fish which can be marketed in Japan, often in competition with the products of Japanese fishermen.

In such a competitive market, it takes a combination of a desirable product, plus high quality, plus good availability, plus real marketing ability to gain a foothold. But so far, U.S.-supplied butterfish has had few of these qualities. Much of the butterfish imported from U.S. suppliers in 1978 arrived in Japan in such poor condition -- stomachs ruptured, skins bruised, freezer-burned and spoiled through deterioration -- that only an estimated 500 mt of the 2,000 mt imported could be marketed for human consumption.

The Japanese fishing industry currently is seeking to improve the marketability of American-caught butterfish by providing technical and marketing assistance to U.S. processors. This spirit of cooperation has been prompted by their understanding and acceptance of the need for the U.S. to develop its fishing industry. But, it is a spirit of cooperation which can best be fostered by fair and understanding treatment of the Japanese fishermen, not by coercion and the manipulation of statutory obligations.

We trust that the Mid-Atlantic Fishery Management Council will review these comments with an open mind, and make changes in both the Butterfish FMP and Amendment as appropriate.

Thank you very much for your consideration.

Yours sincerely,

A handwritten signature in cursive script that reads "Alan Macnow". The signature is written in black ink and is positioned below the typed name.

Alan Macnow

ENVIRONMENTAL ASSESSMENT ON PROPOSED CONTINUATION OF FISHERY MANAGEMENT PLAN FOR ATLANTIC BUTTERFISH

Description of the Action

The Fishery Management Plan (FMP) for Atlantic Butterfish (prepared pursuant to the Fishery Conservation and Management Act, 16 U.S.C. 1801 et seq.) was approved by the Mid-Atlantic Fishery Management Council on 14 June 1979 and approved by the Assistant Administrator for Fisheries, National Oceanic and Atmospheric Administration (NOAA) on 9 November 1979. The FMP is for fishing year 1979-1980 (1 April 1979 - 31 March 1980). The purpose of Amendment #1 is to extend the FMP through the end of fishing year 1980-1981. The following values would apply to fishing year 1980-1981: OY (Optimum Yield) = 11,000 mt (metric tons); DAH (Domestic Annual Harvest) = DAP (Domestic Annual Processing) = 7,000 mt; and TALFF (Total Allowable Level of Foreign Fishing) = 4,000 mt.

Failure to extend the FMP would mean that the FMP would lapse at the end of fishing year 1979-1980 unless extended by a Secretarial amendment. If there were no Secretarial amendment, the National Marine Fisheries Service (NMFS) would be required to prepare a Preliminary Fishery Management Plan (PMP) for this fishery. A PMP would annually set OY and estimate US capacity and, thus, TALFF. A PMP, however, regulates foreign, but not domestic, harvesting. Given the rapidly developing US butterfish fishery, this alternative might benefit US interests in the short-term by allowing free growth of this industry. Within the next few years, however, the US fishery will probably grow, if unrestricted, to annual levels in excess of the estimated MSY (Maximum Sustainable Yield). This could have an adverse impact on US interests in the long-term.

Alternatives

Alternatives for Amendment #1, other than the recommended action are: take no action or increase/decrease Optimum Yield, Domestic Annual Harvest, Domestic Annual Processing, and/or Total Allowable Level of Foreign Fishing. The no action alternative would mean that the FMP would lapse at the end of fishing year 1979-1980, unless extended by a Secretarial amendment. The NMFS could be required to prepare a Preliminary Management Plan (PMP) to regulate the foreign fishery. The latest stock assessment (NMFS, Northeast Fisheries Center, Woods Hole Lab. Ref. No. 79-33) indicates that changes to OY are not necessary from a biological standpoint (see Section V of Amendment #1). The estimates of DAH and DAP are reasonable for fishing year 1980-1981, and it would be premature to change the management regime so soon after the implementation of the basic FMP. These alternatives are discussed and evaluated in Section XII of Amendment #1.

Environmental Impacts

The environmental impacts of the management regime instituted by the original FMP are detailed in the Environmental Impact Statement accompanying the FMP. That analysis included potential impacts resulting from the OY and other management measures. The environmental impacts of the proposed action should be the same as the impacts of the current FMP since no change to the management regime is proposed and because the latest stock assessment (Appendix I to Amendment #1) indicates that there is no need to adjust the Optimum Yield of 11,000 mt. The only alternative that could have a negative effect on the natural environment would be 'no action'. No control could lead to overfishing if the FMP were permitted to lapse and management were through a PMP which could not regulate domestic fishermen.