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MARFIN

ANNUAL REPORT

FISCAL YEAR 1991

4/6/92

MARFIN ANNUAL REPORT

FISCAL YEAR 1991

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I. INTRODUCTION

A. Background

The Marine Fisheries Initiative (MARFIN) Program received its initial impetus from a discussion paper by Dr. Thomas D. McIlwain of the Gulf Coast Research Laboratory in 1983 while he was in the office of Rep. Trent Lott: Research Needs For Information Leading To Full And Wise Use Of Fishery Resources In The Gulf Of Mexico[1]. This paper, sometimes referred to as the Lott-McIlwain paper, proposed an additional investment in fisheries research and development in the Gulf of Mexico to increase the economic contribution of underutilized and unutilized species, develop more valuable products from existing fisheries, develop export markets, to forecast variation in yields, and conserve and maintain presently exploited resources.

The next step in the evolution of MARFIN was the preparation and publication of the Marine Fisheries Initiative - Gulf Of Mexico Phase[2]. This publication, developed by a joint industry, federal, state, and academic task force, detailed the research and development efforts necessary to enhance, restore and maintain fisheries in the Gulf of Mexico. Priority in program emphasis was placed upon funding projects which had the greatest probability of maintenance and improvement of existing fisheries, generating increased revenue for the domestic industry, generating increased yields from fisheries, and generating increased recreational opportunity and harvest potential. Projects were evaluated as to the likelihood of achieving these benefits through both short-term and long-term research projects with consideration of the magnitude of the eventual benefit that might be realized. Both short-term projects yielding immediate benefits and long-term projects were to receive high-priority emphasis. Planning emphasis was placed upon attaining priority goals either through a single project or a series of projects necessary to attain that goal.

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[1]Office of Representative Trent Lott, Washington, DC; Dr. Thomas D. McIlwain; May 1983

[2]Gulf States Marine Fisheries Commission, P. O. Box 426, Ocean Springs, MS 39564; J. Y. Christmas, D. J. Etzold, T. D. McIlwain, L. B. Simpson, Eds. January 1985

The Lott-McIlwain paper and the Marine Fisheries Initiative publication were instrumental in gaining public support for the MARFIN program. On December 4, 1985 the conference report of the House and Senate, appropriating funds for the Departments of Commerce, Justice, and State; the judiciary, and related agencies for the fiscal year (FY) ending September 30, 1986, allocated $2,850,000 for the MARFIN Program. The FY 1987 and FY 1988 funding was increased to $3,500,000. In FYs 1989, 1990, and 1991, funding was $3,000,000, $3,000,000, and $2,986,000, respectively.

B. Purpose

MARFIN promotes and endorses programs which seek to optimize economic and social benefits from marine fishery resources through cooperative efforts which coordinate and evoke the best research and management talents of the Southeast Region. Preference is given to cooperative planning efforts with 3- to 5-year time horizons. The intent is to focus projects funded by MARFIN in such a way, and within an appropriate time frame, that clear answers to fishery questions covered by the NMFS Strategic Plan[1], particularly goals 1, and 2, and 4 are forthcoming. For example, a geographically restricted age and growth study of a local fishery resource is of limited value unless it is coordinated with, or verified by, similar studies which span the range of the resource. Furthermore, the value of such studies is also relatively limited unless the results can be combined with results from other studies to provide a regional assessment of the resource. MARFIN provides this programmatic integration. MARFIN is designed mainly to supplement and enhance existing research and management efforts in the region. Many high-priority issues are already being addressed in one way or another by state, federal, university, and/or industry efforts. MARFIN recognizes that these efforts can have limited effectiveness, however, because of funding constraints which limit scope, precision, and accuracy of sampling and analytical efforts.

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[1]NMFS Strategic Plan Goals
1. Rebuild overfished marine fisheries.
2. Maintain currently productive fisheries.
3. Advance fishery forecasts and ecosystem models.
4. Integrate conservation of protected species and fisheries management.
5. Improve seafood safety.
6. Protect living marine resource habitat.
7. Improve the effectiveness of international fisheries relationships.
8. Reduce impediments to U.S. aquaculture.

The NMFS Regional Director is responsible for administering the program, with reliance primarily upon the MARFIN Program Management Board for guidance on program development and on the selection of appropriate research projects. The Board is comprised of eight members, one representative each from: 1) the Gulf States Marine Fisheries Commission; 2) the Gulf and South Atlantic Fisheries Development Foundation Inc.; 3) the Gulf of Mexico Fishery Management Council; 4) the National Marine Fisheries Service; 5) the five Gulf states; 6) four Sea Grant programs; 7) the recreational fishery organizations; and 8) the commercial fishery organizations. The MARFIN Program Coordinator is located in the Southeast Regional Office of NMFS. During FY 1990 the members and staff were:

CURRENT BOARD MEMBERS

NMFS

Dr. Scott Nichols
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Chief, Grant Operations Branch
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GULF OF MEXICO

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL (GMFMC)

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Executive Director
Gulf of Mexico Fishery Management Council
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DESIGNEE: Terry Leary
(Same address and phone number)

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DESIGNEE: Dr. Jack Van Lopik
Director, Sea Grant Program
Coastal Studies Building
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GULF STATES MARINE FISHERIES COMMISSION (GSMFC)

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Executive Director
Gulf States Marine Fisheries Commission
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President, Bon Secour Fisheries Inc.
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RECREATIONAL REPRESENTATIVE

Dr. Robert L. Shipp
Professor of Biology
University of South Alabama
Life Sciences Bldg., Rm 124
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(205) 460-6331

DESIGNEE: Dr. Robert B. Ditton
Department of Wildlife and Fisheries Sciences
Texas A&M University
College Station, TX 77843-2258
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COMMERCIAL REPRESENTATIVE

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DESIGNEE: Lucy Gibbs
Executive Director
Gulf Shrimp Research & Development Foundation
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Administrator, Seafood Division
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GULF AND SOUTH ATLANTIC FISHERIES
DEVELOPMENT FOUNDATION INC. G&SAFDFI

Ms Judy Jamison
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ALTERNATE: Mr. Mike Voisin
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MARFIN STAFF

PROGRAM MANAGEMENT

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Ellie F. Roche
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MARFIN BOARD SUPPORT

Gulf States Marine Fisheries Commission
P. O. Box 726
Ocean Springs, MS 39564
(601) 875-5912

ORGANIZATION/INDIVIDUAL	88	89	90	91	92	93	94	95
NMFS								
Dr. Scott Nichols			X	→	→	→	→	→
STATE (GULF)								
Mr. William Perret			X	→	→	→	→	→
Alternate								
Mr. Walter Tatum								
SEA GRANT								
Dr. James Cato			X	→	→	→	→	→
Alternate			**					
Dr. Jack Van Lopik								
GSMFC								
Mr. Larry Simpson			X	→	→	→	→	→
Alternate								
Mr. John Nelson								
INDUSTRY								
Mr. Robert Jones			X	→	→	→	→	→
Alternate								
Ms. Lucy Gibbs								
GOM FMC								
Mr. Wayne Swingle			X	→	→	→	→	→
Alternate								
Mr. Terry Leary								
REC								
Dr. Robert Shipp			X *	→	→	→	→	→
Alternate								
Dr. Robert Ditton								
G&SAFDFI								
Ms. Judy Jamison			X	→	→	→	→	→
Alternate								
Mr. Mike Voisin								

X = Reaffirmed;
*=Tenure as Chairman reaffirmed;
**=Elected Vice Chairman

II. BOARD MEETINGS

Three board meetings were held in FY 1991, on November 2, 1990, May 29-30, 1991, and September 12 1991. A conference call was conducted among Board members and NMFS staff on June 19, 1991. The minutes of these meetings may be found in Appendix C.

The majority of the meeting time was spent selecting priority study areas, and choosing NMFS and non-NOAA financial assistance proposals for recommendation to the Regional Director for funding.

III. MARFIN CONFERENCE

The fourth annual MARFIN conference was held in San Antonio, Texas on September 10-11, 1991. Abstracts of this conference are contained in the conference report (see also V. ACCOMPLISHMENTS).

IV. FINANCIAL ASSISTANCE ACTIVITIES

All necessary clearances for the Federal Register notice for financial assistance were received in January. The notice was published in the Federal Register on January 28, 1991 (Appendix A). Fifty-eight applications were received by March 14, 1991. All of these applications were formally reviewed by SEFC, SERO, and non-NMFS scientists prior to the Board meeting on May 29-30. This review consisted of a peer critique by three or more scientists from NMFS and non-NOAA institutions. These critiques were then summarized by a group of NMFS scientists, who in turn rated the applications as highly recommended, recommended, or not recommended. MARFIN Board members further reviewed all of the previous summary and critique information. They recommended 18 applications for funding plus 6 alternates.

The Regional Director combined two projects from the recommended 18, eliminated two (duplicative research and poor scores), and added one from the alternate list. These 16 final selections were approved by the NOAA Assistant Administrator for Fisheries and then forwarded to the NOAA Grants Management Division in Washington D.C. for processing. The final 16 financial assistance applications, the 9 multi-year awards (carried over from previous years), and the 10 NMFS studies are listed in Tables I, II, and III. Summaries of these applications and awards, plus the studies conducted by NMFS, are given in Appendix B. Table IV lists the distribution of funds among states, Sea Grant universities, industry and the NMFS.

Universities (including non-profit organizations associated with universities) remain the major recipients of MARFIN funds at 44.2%. The NMFS Southeast Region remains second at 39.5%. The fishing industry and the Gulf States use only 12.8% and 3.5% respectively.

TABLE I

1991 NMFS SOUTHEAST REGION FINANCIAL ASSISTANCE PROJECTS

DATE: 02/24/92

(NEW PROJECTS)

GRANT # / PROJECT #	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT NAME	YR/TYRS	START DATE	END DATE	TECHNICAL MONITOR	PHONE NUMBER	$AWARDED	YEAR 1	YEAR 2	YEAR 3	TOTAL $
NA17FF0263-01 91MF01.A.1.04	LSU	BALTZ, DONALD DR.	PATTERNS IN DIST & ABUNDANCE OF FISHES AND MACROINVERTEBRATES IN LA	1/1	10/01/91	09/30/92	CIAPLA, THOMAS E. DR. - F/SES7	409-766-3506/8-527-6506	$32,162.00	$32,162.00			$32,162.00
NA17FF0374-01 91MF01.A.4.01	GULF SHRIMP RES & DEV FOUND	GIBBS, LUCY	FINFISH EXCLUDING GEAR IN SHRIMP TRAWLS IN WGOM STUDY-BYCATCH	1/1	10/01/91	09/30/92	SEIDEL, WILBER - F/SES5	601-762-4591	$95,000.00	$95,000.00			$95,000.00
NA17FF0375-01 91MF01.A.4.03	LSU	ROGERS, BARTON	EVAL. OF SHRIMP TRAWLS DESIGNED TO REDUCE BYCATCH IN INSHORE WTRS LA	1/2	11/01/91	10/31/92	WATSON, JOHN W. - F/SES5	601-762-4591	$46,917.00	$46,917.00	$47,150.00		$94,067.00
NA17FF0376-01 91MF01.B.01	LSU	KEITHLY, WALTER DR.	SHRIMP CLOSURES & THEIR IMPACT ON GULF REGION PROCESSG & WHOLESALEG	1/2	10/01/91	09/30/92	WARD, JOHN - F/SE03	813-893-3830/8-826-3830	$64,838.00	$64,838.00	$41,360.00		$106,198.00
NA17FF0377-01 91MF02.A.3.01	UNIV OF FL	THUNBERG, ERIC DR.	ECON ANALYSIS OF US DEMAND FOR SWORDFISH & EFFECT REDUCTION MEASURES	1/1	10/01/91	09/30/92	VONDRUSKA, JOHN DR. - F/SE03	813-893-3830/8-826-3830	$43,287.00	$43,287.00	$0.00		$43,287.00
NA17FF0378-01 91MF02.B.1.02	MOTE MARINE LAB	HUETER, ROBERT DR.	BYCATCH & CATCH-REL MORTALITY OF SHARKS IN GULF COAST NURSERY OFF FL	1/2	10/01/91	09/30/92	CASTRO, JOSE I. DR. - F/SES4	305-361-4494/8-350-1494	$32,143.00	$32,143.00	$30,366.00		$62,509.00
NA17FF0379-01 91MF03.B.03	UNIV OF W FL	BORTONE, STEPHEN DR.	IDENT. OF STOCK STRUCTURE & RECRUITMT PATTERNS FOR RED SNAPPER IN GOM	1/3	10/01/91	09/30/92	WOODLEY-MILLER,SHERYL DR.-SES8	803-762-1200	$89,918.00	$89,918.00	$94,415.00	95,827.00	$280,160.00
NA17FF0380-01 91MF03.C.01	CONTINENTAL SHELF ASSOCIATES, INC.	THOMPSON, JOHN	COMPILATION OF EXISTG DATA ON LOCATION & AREAL EXTENT OF REEF FISH HABITAT ON MS/AL/FL CONTINENTAL SHELF - EGOM	6MO	10/01/91	03/31/92	RUSSELL, MICHAEL - F/SES5	601-762-4591	$20,924.00	$20,924.00			$20,924.00
NA17FF0381-01 91MF03.F.02	AL DEPT CONS & NAT RES	TATUM, WALTER ET.AL	ANALYSIS OF RED SNAPPER CATCHES FROM AL CHARTER BOAT FLEET	1/2	10/01/91	09/30/92	BRUSHER, HAROLD A. DR.- F/SES6	904-234-6541	$30,000.00	$30,000.00	$30,000.00		$30,000.00
NA17FF0382-01 91MF03.F.05	GCRL	LYCZKOWSKI-SHULTZ, J. DR.	SPAWNG & EARLY LIFE HISTORY OF SNAPPERS IN NORTHCENTRAL GOM	1/1	02/01/92	01/31/93	GRIMES, CHURCHILL - F/SES6	904-234-6541	$96,140.00	$96,140.00	$0.00	$0.00	$96,140.00

GRANT # / PROJECT #	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT NAME	YR/TYRS	START DATE	END DATE	TECHNICAL MONITOR	PHONE NUMBER	$AWARDED	YEAR 1	YEAR 2	YEAR 3	TOTAL $
NA17FF0383-01 91MF03.F.07	LSU	WILSON, CHARLES DR.	LIFE HISTORY GAPS IN REDSNAPPER, SWORDFISH, RED DRUM IN NGOM	1/2	10/01/91	09/30/92	PRINCE, ERIC D. - F/SES4	305-361-4248/8-350-1248	$40,000.00	$40,000.00	$40,000.00		$80,000.00
NA17FF0384-01 91MF05.A.01	UNIV OF MIAMI	EHRHARDT, NELSON DR.	BIOLOGICAL DATA FROM COM LANDINGS OF SPANISH MACKEREL IN SW FL FISHERY	1/3	12/01/91	11/30/92	THOMPSON, NANCY B. DR.-F/SES4	305-361-4487/8-350-1487	$68,545.00	$68,545.00	$58,115.00	61,365.00	$188,025.00
NA17FF0385-01 91MF05.B.01	TX A&M RES FOUND	GOLD, JOHN DR.	POP GENETIC STUDIES OF KING MACKEREL IN GOM	1/2	01/01/92	12/31/93	WOODLEY-MILLER,SHERYL DR.-SES8	803-762-1200	$59,703.00	$59,703.00	$62,837.00		$122,540.00
NA17FF0386-01 91MF05.B.02	MOTE MARINE LAB	BURNS, KAREN	KING & SPANISH MACKEREL, RED GROUPER & RED SNAPPER STOCK ASSMT SGOM	1/1	10/01/91	12/31/92	NAKAMURA, EUGENE - F/SES6	904-234-6541	$103,000.00	$103,000.00			$103,000.00
NA17FF0387-01 91MF06.A.01	USF	WILSON, RAYMOND DR.	IN-SITU & LAB STUDIES OF SURVIVORSHIP OF BYCATCH IN RED GROUPER FISHERY	1/1	01/01/92	12/31/92	PARKER, RICHARD DR. - F/SES9	919-728-8717/8-670-9717	$71,157.00	$71,157.00			$71,157.00
NA17FF0388-01 91MF06.C.01	LSU	ROBERTS, KENNETH DR.	FINFISH PROCESSG SECTOR CHANGES IN GOM FISHERIES UNDER MNGMT/REGULATIO	1/1	10/01/91	09/30/92	WATERS, JAMES R. DR. - F/SE03	919-728-8710/8-670-9710	$51,484.00	$51,484.00			$51,484.00
							TOTALS:		$945,218.00	$945,218.00	404,243.00	157,192.00	1,476,653.00

TABLE II

1991 NMFS SOUTHEAST REGION FINANCIAL ASSISTANCE PROJECTS

DATE: 02/24/92

(MULTI-YEAR PROJECTS)

GRANT # / PROJECT #	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT NAME	YR/TYRS	START DATE	END DATE	TECHNICAL MONITOR	PHONE NUMBER	$AWARDED	YEAR 1	YEAR 2	YEAR 3	TOTAL $
0I2NA90AAHMF745 90MF01.A.02	SE FISHERIES ASSOC INC	JONES, ROBERT	CONF ON REDUCTION OF BYCATCH SHRIMP TRAWLG OPERATIONS & ALTER HARVTG	2/2	11/01/91	11/01/92	KLIMA, EDWARD DR. - F/SES7	409-766-3500/8 -527-6500	$99,650.00	$31,650.00	$99,650.00		$131,300.00
0I2NA90AAHMF748 90MF04.B.01	CARIBBEAN MARINE RES CENTER (CMRC)	COLIN, PATRICK DR. ET.AL.	SPAWNG BIOLOGY OF SHALLOW-WATER GOM GROUPERS	2/2	10/01/91	09/30/92	BOHNSACK, JAMES DR. - F/SES4	305-361-4252/8 -350-1252	$83,539.00	$76,350.00	$83,539.00		$159,889.00
0I2NA90AAHMF761 90MF09.C.02	MARINE ENVIRONMENTAL SCIENCE CONSORTIUM	HECK, KENNETH DR., ET.AL.	RECRUITMT & HABITAT UTIL BY BLUE CRAB: IMPORTANCE OF JUV NURSERY HABITAT	2/2	10/01/91	09/30/92	NINELLO, THOMAS DR. - F/SES7	409-766-3506/8 -527-6506	$59,861.00	$58,287.00	$59,861.00		$118,148.00
0I2NA90AAHMF762 90MF04.H.02	LSU	RENDER, JEFFREY DR. ET.AL.	MORTALITY RATES & MOVEMENT OF HOOK&LINE CAUGHT & RELEASED RED SNAPPER	2/2	10/01/91	09/30/92	GITSCHLAG, GREGG - F/SES7	409-766-3505/8 -527-6505	$47,655.00	$30,568.00	$47,655.00		$78,223.00
9I3NA90AAHMF724 89MAR11.A.02	LSU	WILSON, CHARLES DR., ET.AL.	VAR OF YR-CLASS STRENGTH & ANNUAL REPROD OUTPUT OF RED&BLACK DRUM NGOM	3/3	10/01/91	09/30/92	NICHOLS, SCOTT DR. - F/SES5	601-762-4591	$84,200.00	$84,200.00	$84,200.00	84,200.00	$252,600.00
9I3NA90AAHMF725 89MAR06.D.01	LA DEPT OF WLF	SHEPARD, JOSEPH A.	BIOL & CATCH/EFFORT SAMPLG FROM TUNA & SHARK FISHERIES IN NGOM	3/3	10/01/91	09/30/92	TURNER, STEPHEN DR. - F/SES4	305-361-4482/8 -350-1482	$87,700.00	$87,700.00	$87,700.00	87,700.00	$263,100.00
9I3NA90AAHMF727 89MAR11.D.02	LSU	SHAW, RICHARD DR., ET.AL.	UTILIZATION OF FISHERIES-INDEPDENT DATA: FUTURE MANGMT IMPLICATIONS	3/3	02/01/92	01/31/93	NICHOLS, SCOTT DR. - F/SES5	601-762-4591	$79,600.00	$79,600.00	$79,600.00	79,600.00	$238,800.00
9I3NA90AAHMF728 89MAR04.0.02	LSU	RUSSELL, SANDRA	MACKEREL & REEF FISH BIOPROFILE & CATCH/EFFORT DATA COL FROM NGOM	3/3	10/01/91	09/30/92	KUMPF, HERMAN DR. - F/SES6	904-234-6541	$38,730.00	$38,730.00	$38,730.00	38,730.00	$116,190.00
9I3NA90AAHMF734 11.A.04	FL DNR	MURPHY, MICHAEL, ET.AL.	AGE VALIDATION OF ADULT BLACK DRUM IN FL	3/3	02/01/92	01/31/93	GOODYEAR, PHILLIP DR.- F/SES4	305-361-4295/8 -350-1295	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$12,000.00
							TOTALS:		$584,935.00	$491,085.00	584,935.00	294,230.00	1,370,250.00

TABLE III

IN-HOUSE 1991 MARFIN PROPOSALS

PROJ#	APPNAME	PROJNAME	PI	STARTDAT	ENDDATE	$
91NMFS01	SOUTHEAST REGIONAL OFFICE	MARFIN PROGRAM MANAGEMENT	EKBERG, DONALD	10/01/90	09/30/91	$75,000.00
91NMFS02	SOUTHEAST REGIONAL OFFICE	EDUCATIONAL TOOLS FOR MARINE RECREATIONAL FISHERMEN IN THE GOM	SCHMIED, RONALD	10/01/90	09/30/91	$29,000.00
91NMFS03	SOUTHEAST REGIONAL OFFICE	ECONOMIC ASSESSMENT OF THE GOM COMMERCIAL REEF FISH FISHERY	WATERS, JAMES	10/01/90	09/30/91	$65,160.00
91NMFS04	SOUTHEAST REGIONAL OFFICE	ECONOMIC ANALYSIS OF FINFISH BYCATCH IN THE GOM SHRIMP FISHERY	WARD, JOHN	10/01/90	09/30/91	$22,000.00
91NMFS05	GALVESTON LABORATORY	EVALUATION OF THE IMPACTS OF BYCATCH EXCLUDER DEVICES (BEDs) ON FINFISH AND SHRIMP CATCH RATES IN THE GOM	KLIMA, EDWARD	10/01/90	09/30/91	$115,000.00
91NMFS06	PANAMA CITY LABORATORY	REPRODUCTIVE BIOLOGY OF REEFFISH	NAKAMURA, EUGENE	10/01/90	09/30/91	$75,000.00
91NMFS07	MIAMI LABORATORY	DATA COLLECTION FOR SHARKS	CASTRO, JOSE	10/01/90	09/30/91	$55,000.00
91NMFS08	PASCAGOULA LABORATORY	SMALL PELAGICS RESOURCE SURVEYS	NICHOLS, SCOTT	10/01/90	09/30/91	$460,000.00
91NMFS09	PASCAGOULA LABORATORY	GEAR DEVELOPMENT FOR BYCATCH REDUCTION	NICHOLS, SCOTT	10/01/90	09/30/91	$357,000.00
91NMFS10	PASCAGOULA LABORATORY	TED TECHNOLOGY TRANSFER	NICHOLS, SCOTT	10/01/90	09/30/91	$50,000.00

TOTAL $1,303,160.00

TABLE IV
MARFIN FUNDING FOR FY 1991
IN K$

ORGANIZATION / USE	STATES						SEA GRANT/UNIVERSITIES/ NON-PROFIT LABS.					FISHING INDUSTRY	NMFS	TOTALS
	FL	AL	MS	LA	TX	GSMFC	FL	AL-MS	LA	TX	LABS/OTHER UNIV.			
RECEIVE	4.00	30.00	0.0	87.70	0.0	61.81	272.91	96.14	485.59	59.70	299.46	194.65	1,305.16	2,897.12
USE DIRECTLY	1.10	30.00	0.0	0.0	0.0	61.81	230.91	96.14	465.59	59.70	299.46	187.15	1,143.66	2,575.52
SUBCON-OUT	2.90	0.0	0.0	87.70	0.0	0.0	42.00	0.0	20.00	0.0	0.0	7.50	161.50	321.60
SUBCON-IN	0.0	0.0	0.0	0.0	7.50	0.0	0.0	0.0	87.70	0.0	42.00	184.4	0.0	321.60
TOTAL	1.10	30.0	0.0	0.0	7.50	61.81	230.91	96.14	553.29	59.70	341.46	371.55	1,143.66	2,897.12
GRAND TOTAL			100.41						1,281.49			371.55	1,143.66	2,897.12
PERCENT			3.5						44.2			12.8	39.5	100

V. ACCOMPLISHMENTS

The fourth annual MARFIN conference proceedings are available from the MARFIN Program Office. A summary of this symposium is given below:

Shrimp Fisheries

Shrimp trawl bycatch is now recognized as the major problem facing the shrimping industry in the Southeast. Consequently considerable research is now directed to solving this problem.

More than 50 finfish excluder combinations were evaluated by divers. Seven design combinations underwent comparative fishing tests. Catch results from the comparative tests showed combined day and night finfish reduction rates of 20 to 58 percent (Table V). The best reduction rates were achieved with a mini-super shooter TED, a Florida fish excluder equipped with a cone webbing water deflector and a hummer wire deflector. A mini-super shooter TED with a large mesh excluder section, a Florida fish excluder with a cone webbing water deflector and a hummer wire deflector combination exhibited the best snapper exclusion with a reduction rate of approximately 52 percent. Shrimp loss was apparent with the excluder designs incorporating a Florida fish excluder with a water deflector (cone and double webbing).

Several juvenile red snapper were encountered and appeared to be undisturbed as the divers and the ROV conducted their transects. Most of the snapper were in close association with a structure or with a hole in the bottom. A few were observed over bare bottom with no apparent structure. All of the snapper were within a few inches to a foot of the bottom. From the trawl, divers observed that young snapper did little to escape as they were overtaken by the trawl. Only a small number of snapper were observed passing under the trawl footrope which rode 8 to 10 inches off bottom. The rest fell back into the net with their heads oriented to the front of the trawl. In the body of the trawl, the snapper swam just enough to avoid contact with the trawl webbing, but as the trawl narrowed, they increased their swimming speed. When they passed through the TED funnel and into the section containing the finfish excluder, most of the snapper were turned by the fish deflector into the direction of the finfish excluder openings. The snapper were able to swim into the water flow and maintain a position near the openings, but only a few were observed exiting during the tow. The video camera showed that most of the snapper that escaped did it when the trawl was being hauled back. Even after the snapper exited the trawl, they were reluctant to leave it, and some were even observed swimming back into the trawl through the excluder openings.

V. ACCOMPLISHMENTS

The fourth annual MARFIN conference proceedings are available from the MARFIN Program Office. A summary of this symposium is given below:

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Although no longer the major problem, TED technology transfer continues to receive attention. TED technology transfer activities in FY 1991 have included: direct assistance to shrimp fishermen in choosing and installing TEDs, assistance to law enforcement, TED manufacturers, and Sea Grant agents, in determining legal requirements and definitions of TEDs, technical assistance to fishermen, net shops, and TED manufacturers in determining if various TED designs meet legal requirements, assistance in construction and installation techniques, assistance to TED designers in developing new TED designs, providing certification tests for new TED designs, and dissemination of TED informational literature and videos. Twelve TED workshops have been held to date, including three in North Carolina, three in Louisiana, two in Georgia, and one each in Florida, Alabama, Mississippi, and Texas. Technical assistance was provided to the North Carolina Division of Marine Fisheries in providing and testing modified TED designs for use in the winter flounder trawl fishery in North Carolina.

Turtle excluder device (TED) construction and operation workshops were held in Mexico, Panama, and Honduras in FY91. The objective of the workshops was to provide the necessary training in TED technology to countries affected by U.S. legislation which provides that shrimp harvested with gear that may adversely affect certain sea turtle species may not be imported into the United States after May 1, 1991. The workshops funded by AID consisted of extensive instruction in the construction and installation of grid type and soft TED designs and at sea operation and problem solving demonstrations.

TABLE V

Table V. Reduction rates for finfish, shrimp, and red snappers in seven TED equipped trawls with finfish excluder designs as compared to the standard equipped TED trawl.

Description	Percent Reduction		
	Finfish (wt.)	Shrimp (wt.)	Snapper (no.)
Super shooter TED w/Florida Excluder (double webbing water deflector, and lead panel) and hummer wire deflector.	54	22	48
Super shooter TED w/Florida Excluder (double webbing water deflector) and hummer wire deflector.	50	15ns	15
Mini-super shooter TED w/large mesh excluder (A) and Florida excluder (cone webbing water deflector) and hummer wire deflector.	54	8	52
Mini-super shooter TED w/Florida excluder (cone webbing water deflector) and hummer wire deflector.	58	50	46
Mini-super shooter TED w/extended funnel excluder and hummer wire deflector.	44	0	22
Mini-super shooter TED w/extended funnel excluder and chain deflector.	22ns	0	20ns
Mini-super shooter TED w/Florida excluder and hummer wire deflector.	20ns	0	+10ns

ns - Not statistically significant.

In view of the bycatch and TED problems coupled with persisting overcapitalization, it is apparent that no major improvement in this fishery is likely unless fishing effort is significantly reduced. Imports and the business decisions of foreign aquaculturists may determine future management strategy. Habitat degradation in coastal marshes, regardless of management actions, will continue to adversely shrimp production.

Small Pelagics

In response to the recognized potential of the small pelagic resource, NMFS initiated a Latent Resources Research Program in 1983. Emphasis was on developing management and development information ranging from refined biomass and seasonal availability estimates, through predator-prey relationships, to defining environmental relationships with remote sensing techniques, to product handling and processing protocols, to international and national market development, and to technology transfer to the industry. Activities conducted during the past year center on coastal herrings, and have been oriented at improving assessment methodology, standardizing assessment gears, determining the feasibility of applying advance bioacoustics to survey activities, and to implementation of the experimental seafood processing plant in Pascagoula.

Species of small pelagics are distributed according to different bathymetric provinces and their depth - related occurrences vary seasonally. These seasonal changes are related to temperature, food and reproductive cycle. Research trawl surveys conducted on the West Florida Shelf and Slope by the NMFS since 1986 have provided information on distribution from which general provinces for the species can be described. The following array shows the general distribution of the species off Florida.

		BAYS AND SOUNDS	SCALED SARDINE
			THREAD HERRING
		COASTAL WATERS	SPANISH SARDINE
			CHUB MACKEREL
	CONTINENTAL SHELF		ROUND SCAD
			ROUND HERRING
			ROUGH SCAD
CONTINENTAL SLOPE			SILVER DRIFTFISH
			BROWN DRIFTFISH
			SHORTFIN SQUID
			LONGFIN SQUID

The reproductive phase shifts farther offshore into the open Gulf from nearshore to offshore and beyond the outer continental shelf. The array during the reproductive phase holds the same relative order.

Gear research completed development of a standardized midwater trawl for sampling during surveys. A reduced size, 90-ft high opening bottom trawl was developed and tested. The new trawl is a scaled-down version of the 123-ft Shuman bottom trawl that has been used in the past. Gear comparison experiments were conducted during two cruises of the NOAA Ship CHAPMAN to determine the new trawl's ability to capture small pelagic species and to develop catch conversion factors between the new trawl and the 123-ft Shuman trawl.

Landings of the industrial trawl fishery were sampled for biological data on the small pelagics used in pet food. A stock assessment of gulf butterfish was completed and the bycatch data collected during observer trips on butterfish vessels from 1986-1989 was updated. Gulf butterfish catch is less than the estimated MSY of 26,500 metric tons, with the majority of the catch taken by the shrimp fleet as bycatch.

A satellite receiving station was acquired. The receiver will support MARFIN activities involving remote sensing data. Satellite imagery was collected and processed into sea surface temperature and water turbidity data to detect and delineate the Mississippi River Plume. Satellite imagery is periodically processed throughout the year for use in Panama City Laboratory MARFIN and other projects. An upgrade of the underwater Remote Operating Vehicle (ROV) was completed. This upgrade allows precise navigation of the vehicle for trawl evaluation work.

The Experimental Seafood Processing Laboratory (ESPL) in Pascagoula was completed and is fully functional. The seafood laboratory is a cooperative effort between the Agriculture and Forestry Experiment Station, the Cooperative Extension Service of Mississippi State University, and the National Marine Fisheries Service. Processing equipment has been installed and is fully operational. Laboratory personnel have initiated preliminary studies focusing on obtaining information on composition, uses, handling methods, processing requirements, yields and quality retention of Gulf of Mexico species. Several samples of butterfish, rough scad, round herring, Spanish sardines, and chub mackerel were collected for fatty acid and proximate composition studies. Preliminary evaluations on the sensory characteristics of chub mackerel held in ice or refrigerated seawater have also been completed.

Estuarine Fish

Most of the inshore research has been directed at red drum and mullet. In the short history of MARFIN red drum has received more attention than any other fishery.Reports given at the annual conference in San Antonio covered aspects of red drum-habitat relationships, dynamics of estuarine and offshore stocks,age structure and reproductive potential, and population genetics. Red drum grown in vegetated showed no size difference in comparison with fish raised in unvegetated habitats. These results suggest that food may play a lesser role than protection from predators. In contrast to red drum, juvenile seatrout growth was significantly higher in seagrass than over unvegetated areas. In some species the ratio of strontium to calcium in otoliths is inversely correlated with water temperature. This relationship does not occur with red drum. Thus, attempts to use otolith microgeochemistry to reconstruct the chronology of migrations between estuarine and offshore sites were unproductive. Attempts to shed light on the "missing" red drum population yielded some interesting results. Ninety-three percent of red drum specimens collected from 60 to 150 feet were three years old or less. The age frequency distribution of these fish was very similar to "young" schools of fish captured by purse seine and significantly different from the age structure of "old schools". The true value of this "missing" component awaits conformation based on estimates of the magnitude of this population.

The nuclear and mtDNA data obtained to date indicate that red drum are genetically subdivided, with distinct subpopulations or stocks occurring in the northern Gulf of Mexico and along the southeastern Atlantic Coast. This suggests that a biological or geographical barrier separates, or perhaps historically separated red drum in the gulf from those in the Atlantic. The relative magnitude of genetic differentiation between gulf and Atlantic red drum, however, is not large, and there is evidence that considerable gene flow (migration) occurs between the two subpopulations. Red drum in the northern Gulf of Mexico do not appear to be genetically subdivided either spatially or temporally. This suggests that (1) gene flow among gulf red drum is extensive, and (2) the effective size of the rd drum subpopulation in the northern gulf is very likely large. Levels of genetic variability in the gulf red drum are comparatively high, suggesting that the perceived decline in the gulf red drum abundance has not affected the genetic variability base of the gulf subpopulation.

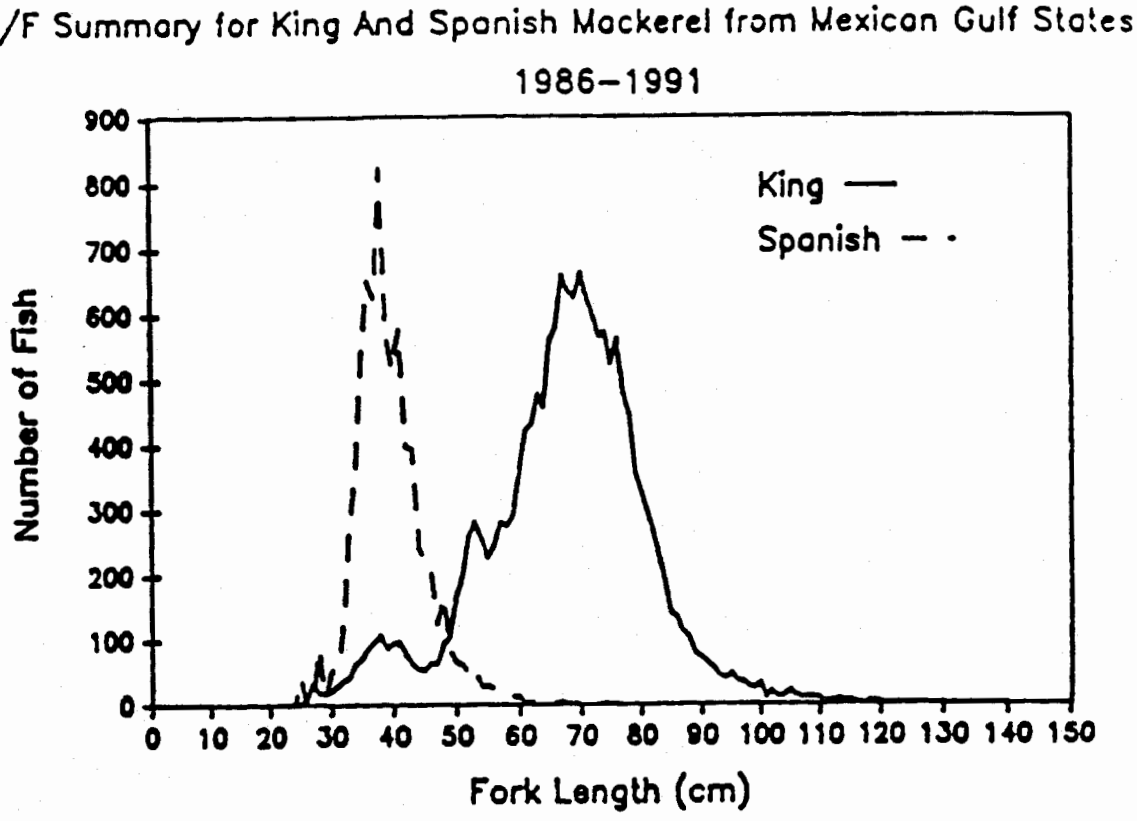
Coastal Pelagics

Studies to fill in some of the gaps in the early life histories of commercially and recreationally important fishes revealed that Cobia eggs hatch in about 24 hours at 29 degrees C. Eggs are usually collected in the upper meter of water and larvae in surface-towed nets. Larvae hatch at about 2.5 mm SL and are recognized by the large supraorbital ridge with a single spine, 'swollen' pterotics, heavy body pigmentation, minute epithelial prickles, and pair of moderate to large, simple spines at the angle of the posterior margin of the preopercle. Fewer than 50 larvae <20 mm SL have been collected in the Gulf of Mexico (GOMEX) and most occurred between June and September. Evidence suggests that cobia spawn in both estuarine and shelf waters during the day. Most larval cobia in the GOMEX have been collected at surface water temperatures of 25 degrees C or greater and salinities >27 ppt.

Bluefish were collected at salinities of 26.7-36.3 ppt and water temperatures from 22.4-26.9 degrees during April and October - November. Spawning may be associated with riverine/oceanic frontal areas and probably occurs over the middle and outer continental shelf. Bluefish eggs hatch in about 30-36 hours at ambient surface water temperatures (X=25 degrees C) during months of peak spawning and based on the size of early larvae, spawning occurred in the vicinity of the collections.

Migration and stock assessment research with king and Spanish mackerel in the southern Gulf of Mexico is now in its sixth consecutive year. A summary of length frequency studies is shown in Figure 1. Figure 2 A-G depicts tagging and tag return areas.

FIGURE 1



Reef Fish

Gaps in the reef fish information base are starting to be filled. Red and vermillion snapper larvae now have been described. Daily deposition of growth rings on the otoliths have proved useful in aging these larvae.

Life history parameters of lane and gray snapper, gray triggerfish, gag grouper, and red snapper have been recorded in fish from the north central Gulf of Mexico using otolith and length frequency data.

Genetic studies with snappers, groupers, and jacks suggest that red snapper may not be genetically subdivided in the northern Gulf of Mexico; red grouper mitochondrial DNA research with 12 haplotypes showed a low nucleon diversity, which indicated that all 12 haplotypes were derived fairly recently from one another; and preliminary heterogeneity tests of mtDNA haplotype frequencies suggest that the two samples of the greater amberjack from Florida are not differentiated genetically.

FIGURE 2

Figure 2.A. Number of mackerel tagged off Mexican Gulf Coast States (1986-1991).
Figure 2.B. Significant long distance tag returns between the U.S. and Mexico (1986-1991).
Figure 2.C. Significant tag returns within Mexico and from Veracruz, Mexico, to the U.S. (1986-1991).
Figure 2.D. Important tag returns from Texas to Mexico (1986-1991).

Fig. 2.A.

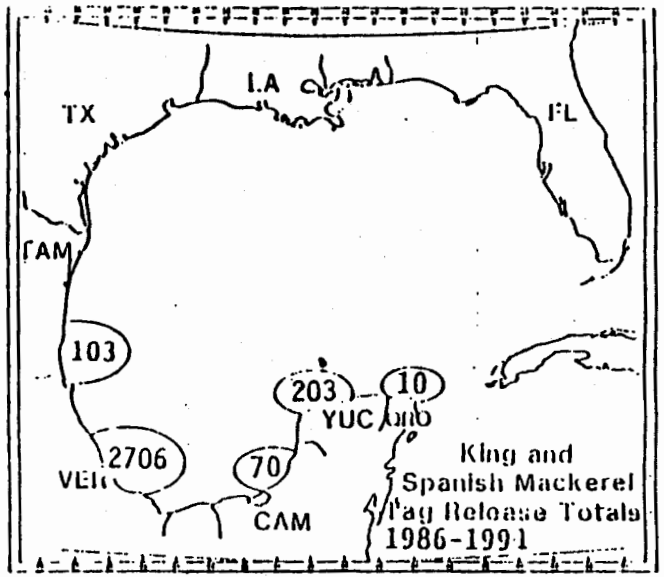


Fig2.B.

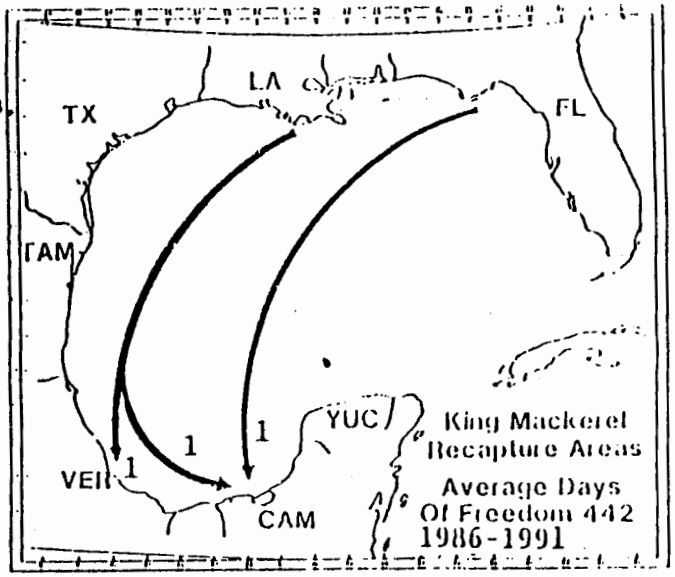


Fig. 2.C

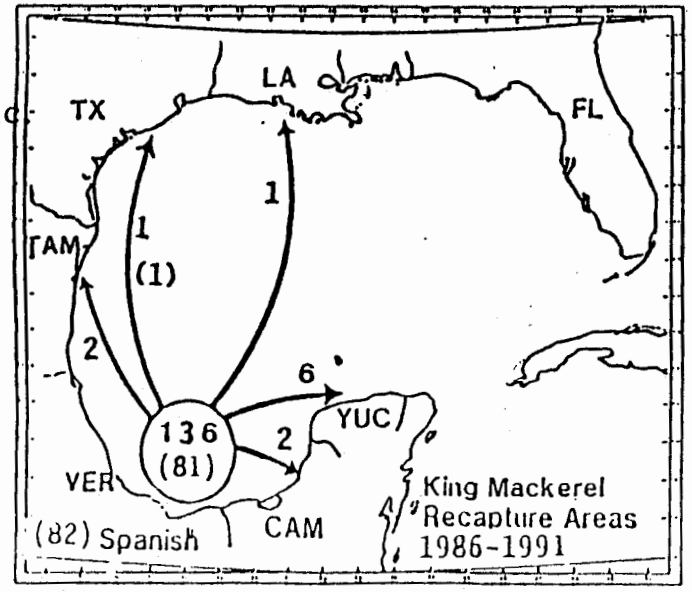


Fig-2.D

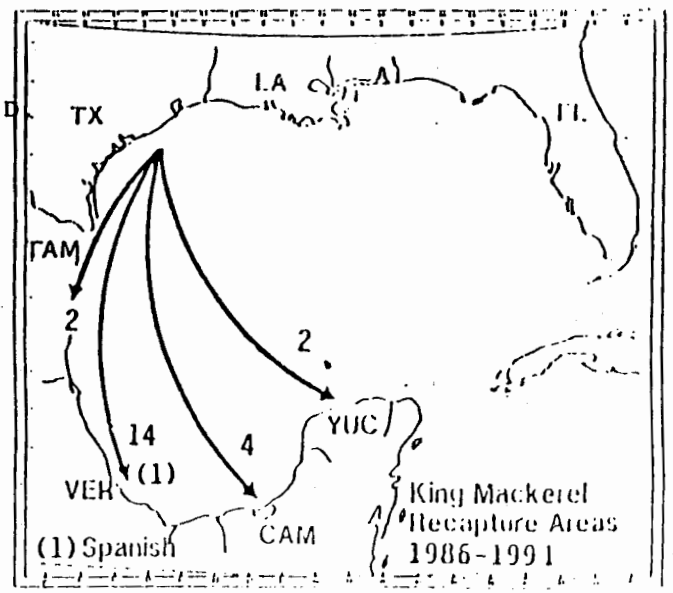


FIGURE 2 (Con't)

Figure 2.E. Significant tag returns from Tamaulipas to other Mexican states (1986-1991)
Figure 2.F. Significant long distance tag returns from Campeche to other Mexican states (1986-1991).
Figure 2.G. Important long distance tag returns from Yucatán to Veracruz (1986-1991).

Fig.2.E.

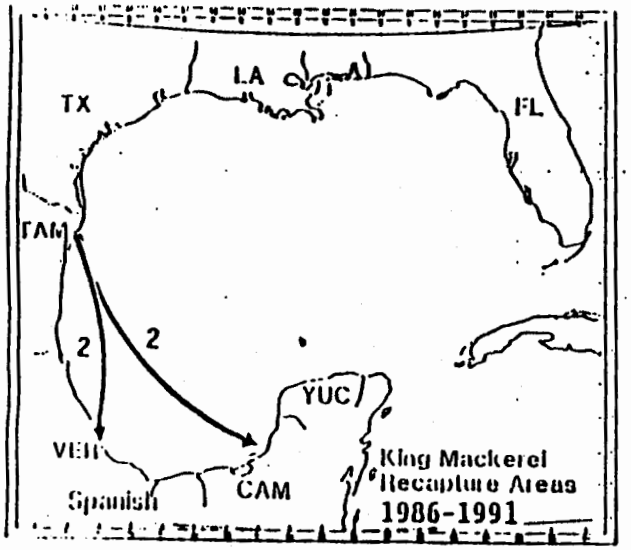


Fig.2.F.

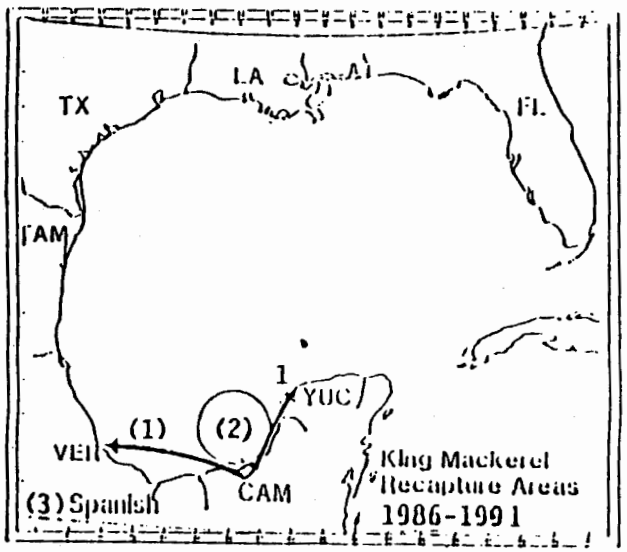
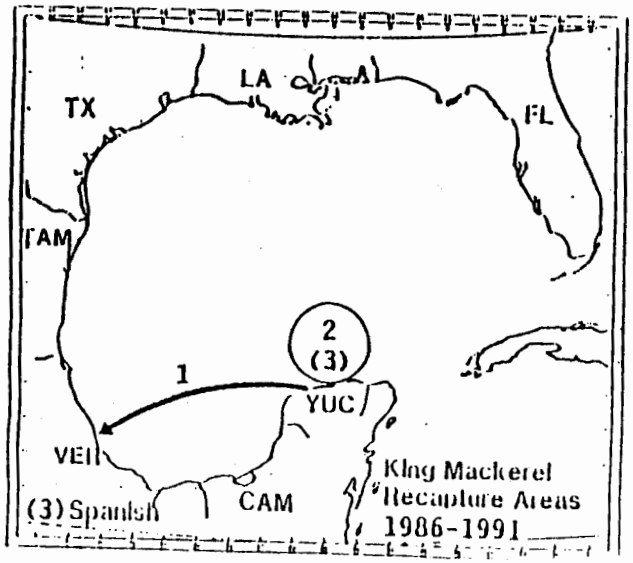


Fig. 2.G.



Age and growth studies of 715 cobia and 822 greater amberjack have enhanced population assessment research of these species. Peak spawning of these fish takes place during May and June off the Louisiana coast. Differentiation of amberjack species remains a problem among fishermen, but research comparing lesser and greater amberjack showed a yellow second dorsal fin in the lesser amberjack that differed from a gray colored second dorsal fin in the greater amberjack.

Fecundity research to determine the spawning potential ratio (SPR) was conducted with 13 species of reef fish. Most of the samples were obtained from three species of grouper (gag,red, and scamp) and two species of snapper (red and vermillion).

Recreation reef fish anglers rated nonconsumptive aspects of their fishing trips as more important than either catching or keeping fish. These fishermen spent an average of $102 per trip and averaged 22 trips per year.

Sharks

Eighteen shark tournaments were identified during 1990 in the Gulf of Mexico; nine tournaments were sampled, and seven hundred shark anglers were selected for the mail survey. Most of the sample resided in Florida (84%) and Texas (8%). Three hundred and forty-two anglers responded for an effective response rate of 58% (excluding non-deliverables). Tournament shark anglers had an average of 20 years of saltwater fishing experience, but only 10 years of shark fishing. In total, these shark anglers reported spending an average of 57 days fishing in the previous twelve months. Shark was the species most preferred (first choice) by 26% of the respondents, followed by grouper (20%) and snook (15%). Respondents usually fish for shark in the gulf, 10 miles or less from the shore, with an average expenditure of $199 per trip. Consumers surplus was $120 per shark fishing trip. Acceptable substitutes for shark were king mackerel, snapper, grouper, tarpon, and bonefish, pompano, sea trout and red drum were not acceptable substitutes for the majority of respondents.

Clams

Quahog research in inshore Alabama and northwest Florida revealed: (1) habitat (sand or seagrass) and season significantly influences growth rates, with clams in sand growing fastest in cooler months and clams in seagrass growing at relatively greater rates in summer months; (2) location within the grass bed significantly influences growth rate, with difference locations in the bed changing ranks by season, but with overall annual growth rates higher near the edge and lower in the interior of the bed; and (3) simulated siphon nipping can significantly reduce growth rates of clams.

APPENDIX A

FEDERAL REGISTER NOTICE

[Docket No. 901230-0339]

Financial Assistance for Research and Development Projects To Provide Information for the Full and Wise Use and Enhancement of Fishery Resources in the Gulf of Mexico

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Notice of availability of financial assistance.

SUMMARY: For fiscal year (FY) 1991, Marine Fisheries Initiative (MARFIN) funds are available to assist persons in carrying out research and development projects that optimize the use of U.S. Gulf of Mexico fisheries involving the U.S. fishing industry (recreational and commercial), including, but not limited to, harvesting methods, economic analyses, processing, fish stock assessment, and fish stock enhancement. NMFS issues this notice describing the conditions under which applications will be accepted and how NMFS will determine which applications will be funded.

DATES: Applications for funding under this program will be accepted between January 28, 1991 and 6 p.m. e.s.t. on March 14, 1991. Applications received after that time will not be considered for funding.

Applications may be inspected at the NMFS Southeaste Regional Office (see **ADDRESSES**) from March 29, 1991 to March 21, 1991.

Selection of successful applications generally will be provided by March 29, 1991.

ADDRESSES: Send applications to: Regional Director, Attn: D. Ekberg, Southeast Regional Office, National Marine Fisheries Service, 9450 Koger Boulevard, St. Petersburg, FL 33702.

Questions of an administrative nature should be referred to: Grants Management Division, Attn: Jean West, Chief, Grants Operations Branch, NOAA, SSMC2, OA322, 1325 East-West Highway, Silver Spring, MD 20910, telephone 301-427-2022.

Send comments on the collection of information to the office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: Dr. Donald R. Ekberg, 813-893-3720.

SUPPLEMENTARY INFORMATION:

I. Introduction

The Fish and Wildlife Act of 1956, at 16 U.S.C. 753a, and section 304(e) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1854(e)) authorize the Secretary of Commerce (Secretary) to conduct research to enhance U.S. fisheries. The Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriation Act of 1991 makes funds available to the Secretary for FY 1991. This solicitation makes available approximately $2.6 million (including $585 thousand for continuing projects) for financial assistance under the MARFIN program to manage and enhance the use of fishery resources in the Gulf of Mexico. There is no guarantee that sufficient funds will be available to make awards for all approved projects. U.S. fisheries [1] include any fishery that is or may be engaged in by U.S. citizens. The phrase "fishing industry" includes both the commercial and recreational sectors of U.S. fisheries. The "MARFIN Board" consists of individuals from (1) NMFS, (2) Gulf of Mexico Fishery Management Council, (3) Gulf and South Atlantic Fisheries Development Foundation, (4) Southeast Sea Grant Universities, (5) Gulf States Marine Fisheries Commission, (6) recreational fisheries, (7) commercial fisheries, and (8) the Gulf States. This program is described in the Catalog of Federal Domestic Assistance under program number 11.433 Marine Fisheries Initiative.

II. Funding Priorities

A. Proposals for FY 1991 should exhibit familiarity with related work that is completed or ongoing. Where appropriate, proposals should be multidisciplinary. Coordinated efforts involving multiple institutions or persons are encouraged. While the areas for priority consideration are listed below, proposals in other areas will be considered on a funds available basis.

[1] For purposes of this notice, a fishery is defined as one or more stocks of fish, including tuna, and shellfish, which are identified on a unit basis on geographic, scientific, technical, recreational and economic characteristics, and any and all phases of fishing for such stocks. Examples of a fishery are Gulf of Mexico shrimp, groundfish, menhaden, etc.

1. Shrimp

a. Shrimp Trawler Bycatch (Very high priority)

(1) These studies should include collection and analyses of new data using a multi-species approach with emphasis on species under Federal or state management.

(2) Quantification and further analysis of existing biological data obtained from observers, fishery independent surveys and other sources.

(3) Data collection and analyses related to the economic and social consequences of bycatch and various bycatch alternatives in the shrimp fisheries, including impact of management options. Capital/labor mobility and effort changes related to costs, management and/or increased fish abundance should be considered. Sociological studies should describe the demographic, social, and cultural characteristics of the fishermen as they may affect vocational and geographic mobility in response to changing fishery regulations. Direct and indirect economic and social consequences should be considered.

(4) Development and evaluation of gear and fishing tactics to reduce inshore and offshore bycatch. Biological, economic, and social implications should be considered.

b. Controlled-Access Management (Very high priority)

Proposals should concentrate on the development and assessment of models that predict economic changes in total fishing value, distributional effects and costs of fishery management, including enforcement and data costs. Sociological studies should describe the demographic, social, and cultural characteristics of the fishermen as they may affect vocational and geographic mobility in response to changing fishery regulations.

2. Oceanic Pelagics

a. Longline Fishery, Including Bycatch

(1) Quantification and analysis of existing data with special emphasis on existing logbook data.

(2) Collection and analyses of new data using a multi-species approach.

(3) Development and evaluation of gear and fishing tactics to reduce bycatch. Biological, economic, and social factors should be considered.

b. Sharks (Very high priority)

(1) Characterization of the directed commercial, commercial bycatch, bycatch from other fisheries, and recreational fisheries, by species and

gear type, through analysis of new and existing data.

(2) Determination of baseline cost and returns for longline fisheries that target or retain sharks, and estimation of demand curves for shark products and recreational shark fisheries.

(3) Development of stock assessment and species profiles for target species.

3. Reef Fish (High priority)

a. Determination of recruitment processes for shallow and deep-water reef fish.

b. Identification of reef fish stock structure.

c. Complication of existing data on location and areal extent of reef fish habitats.

d. Collection and analysis of life history and catch and effort data for stock assessment, with special emphasis on shallow and deep-water grouper, amberjack, and grey triggerfish, including longline fishery data.

3. Description of the demographic, social and cultural characteristics of fishermen. Economics proposals should concentrate on the development of models that are capable of determining the economic effects of reef fish management, including bag limits, size limts, quotas, seasonal/area closures, gear restrictions and limited entry. Proposals should incorporate biological considerations either endogenously or exogenously. Emphasis should be placed on the development of model structures. These models may be tested using hypothetical data if sufficient empirical data are unavailable.

f. Studies contributing to the early life history of red snapper, specially related to larval survival.

4. Coastal Herrings & Butterfish

a. Collection of fishery independent data using resource surveys.

b. Description of predator-prey relationships.

c. Development of species profiles of coastal herrings and associated species.

5. Coastal Pelagics

a. Determination of recruitment indices for king and Spanish mackerel, cobia, and dolphin.

b. Collection and analysis of king and Spanish mackerel data from the entire Gulf of Mexico.

6 General

a. Determination of hook/release mortality for king and Spanish mackerel, reef fish, amberjack, and dolphin as a function of capture depth, handling, tackle, water temperature and other related factors.

b. Development of educational materials that can be used at sea by recreational and commercial fishermen to identify fish. Special emphasis should be given to sharks and reef fish.

c. Assessment of the changes in recreational and commercial values that have resulted from the implementation of bag limits, size limits, quotas or other management rules for red drum, mackerels, spotted sea trout, and reef fish.

d. Determination of sources and extent of unreported recreational and commercial catches of major Gulf of Mexico fisheries.

e. Studies that contribute to the economic and biological improvement of the estuarine fish, marine mollusks, and crab fisheries.

B. MARFIN financial assistance for projects started in FY 1986. For fiscal years 1986, 1987, 1988, 1989, and 1990, awards totaled $9.082 million. Funding, by fishery, was as follows:

	$ thousand	Percent of total
1. Shrimp (includes TED technology transfer)	1,525.8	16.8
2. Menhaden	70.9	0.8
3. Coastal pelagics	1,228.2	13.5
4. Reef fish	608.9	6.7
5. Coastal herrings	577.8	6.4
6. Ocean pelagics	455.3	5.0
7. Marine mollusks	387.2	4.3
8. Crabs and lobsters	564.4	6.2
9. Bottomfish	89.1	1.0
10. Marine Mammals and endangered species	288.2	3.2
11. Estuarine fish	3,200.5	35.2
12. General	85.9	0.9

C. Priority in program emphasis will be placed upon funding projects that have the greatest probability of recovering, maintaining, improving, or developing fisheries, improving our understanding of factors affecting recruitment success, generating increased values from fisheries, and generating increased recreational opportunity and harvest potential. Projects will be evaluated as to the likelihood of achieving these benefits through both short-term and long-term research projects with consideration of the magnitude of the eventual economic benefit that may be realized. Both short-term projects that may yield more immediate benefits and long-term projects yielding greater benefits will receive equal emphasis.

D. Further information on current programs that address the above listed priorities may be obtained from the NMFS Southeast Regional Office (see **ADDRESSES**).

III. How to Apply

A. Eligible Applicants

1. Applications for grants or cooperative agreements for MARFIN projects may be made, in accordance with the procedures set forth in this notice, by:

a. Any individual who is a citizen or national of the United States;

b. Any corporation, partnership, or other entity, non-profit or otherwise, if such entity is a citizen of the United States within the meaning of section 2 of the Shipping Act, 1916, as amended (46 U.S.C. 802).[8]

2. NOAA reserves the right to withhold the awarding of a grant or cooperative agreement to any individual or organization who is delinquent on a debt to the Federal Government until payment is made or satisfactory arrangement are made with the agency to whom the debt is owed. Any first time applicant for Federal grant funds is subject to a preaward accounting survey prior to execution of the award. Women and minority individuals and groups are encouraged to submit applications. NOAA employees, including full-time, part-time, and intermittent personnel (or their immediate families), and NOAA offices or centers are not eligible to submit an application under this solicitation, or aid in the preparation of

[8] To qualify as a citizen of the United States within the meaning of this statute, citizens or nationals of the United States or citizens of the Northern Mariana Islands (NMI) must own not less than 75 percent of the interest in the entity or, in the case of a non-profit entity, exercise control of the entity that is determined by the Secretary to be equivalent to such ownership; and in the case of a corporation, the president or other chief executive officer and the chairman of the board of directors must be citizens of the United States. No more of its board of directors than a minority of the number necessary to constitute a quorum may be non-citizens; and the corporation itself must be organized under the laws of the United States, or of a State, including the District of Columbia, Commonwealth of Puerto Rico, American Samoa, the Virgin Islands of the United States, Guam, the NMI or any other Commonwealth, territory, or possession of the United States. Seventy-five percent of the interest in a corporation shall not be deemed to be owned by citizens of the NMI, if: (1) The title to 75 percent of its stock is not vested in such citizens of nationals of the United States or citizens of the NMI free from any trust or fiduciary obligation in favor of any person not a citizen or national of the United States or citizens of the NMI (2) 75 percent of the voting power in such corporation is not vested in citizens or nationals of the United States or citizens of the NMI; (3) through any contract or understanding it is arranged that more than 25 percent of the voting power in such corporation may be exercised, directly or indirectly, in behalf of any person who is not a citizen or national of the United States or a citizen of the NMI, or (4) by any means whatsoever, control of any interest in the corporation is conferred upon or permitted to be exercised by any person who is not a citizen or national of the United States.

an application, except to provide information about the MARFIN program and the priorities and procedures included in this solicitation. However, NOAA employees are permitted to provide information about ongoing and planned NOAA programs and activities that may have implication for an application. Potential applicants are encouraged to contact NOAA organizations engaged in fisheries research in the Gulf of Mexico, or Dr. Donald R. Ekberg at the NMFS Southeast Regional Office (see **ADDRESSES**) for information on NOAA programs.

B. Amount and Duration of Funds

Under this solicitation for FY 1991, an estimated $2.0 million will be available to fund fishery research and development projects ($1.41 million for new projects and $585 thousand for continuing projects). Grants or cooperative agreements may be awarded for a period of up to 3 years. Once awarded, multi-year projects will not compete for funding in subsequent years. Funding for multi-year projects beyond the first year is contingent upon the availability of program funds in subsequent fiscal years, and the extent to which project objectives and reporting requirements are met during the prior year. Publication of this announcement does not obligate NMFS to award any specific grant or to obligate all of any part of the available funds. Awards generally will be made no later than 90 days after the funding selection is determined and negotiations are completed. Under no circumstances should a successful applicant proceed with the proposed project until such time that he/she has received a signed notice of award from the Grants Officer.

C. Cost-Sharing Requirements

Applications must reflect the total budget necessary to accomplish the project, including contributions and/or donations. Cost-sharing is not required for the MARFIN program. However, cost-sharing is encouraged, and in case of a tie in considering proposals for funding, cost-sharing may affect the final decision. The appropriateness of all cost-sharing will be determined on the basis of guidance provided in OMB circulars. Appropriate documentation must exist to support in-kind services or property used to fulfill cost-sharing requirements.

D. Format

1. Applications for project funding must be complete. They must identify the principal participants and include copies of any agreements describing the specific tasks to be performed by participants. Project applications should give a clear presentation of the proposed work, the methods for carrying out the project, its relevance to managing and enhancing the use of Gulf of Mexico fishery resources, and cost estimates as they relate to specific aspects of the project. Budgets will include a detailed breakdown by category of expenditure with appropriate justification for both the Federal and non-Federal share. Applicants may submit up to three related projects under one proposal, but must identify project costs, including administrative costs, separately for each individual project. Applicants should not assume prior knowledge on the part of NMFS as to the relative merits of the project described in the application.

2. Applications must be submitted in the following format:

a. *Cover Sheet:* An applicant must use OMB Standard Form 424 (revised 4/88) as the cover sheet for each project or group of consolidated projects. Applicants may obtain copies of the form from the NMFS Southeast Regional Office, or Department of Commerce's Grants Management Division (see **ADDRESSES**).

b. *Project Summary:* Each project must contain a summary of not more than one page that provides the following information:

(1) Project title.

(2) Project status (new or continuing). If continuing, show previous financial assistance award number and beginning/ending date.

(3) Project duration (beginning and ending dates).

(4) Name, address, and telephone number of applicant.

(5) Principal Investigator(s).

(6) Project objectives.

(7) Summary of work to be performed. For continuing projects, the applicant must briefly describe progress to date, in addition to any changes to the statement of work previously submitted.

(8) Total Federal funds requested (for multi-year projects, identify each year's requested funding).

(9) Cost-sharing to be provided from non-Federal sources (for multi-year projects, identify each year's cost-sharing). Specify whether contributions are project related cash or in-kind.

(10) Total project cost.

c. *Project Description:* Each project must be completely and accurately described. Each project description may be up to 15 pages in length. NMFS will make all portions of the project description available to the public and members of the fishing industry for review and comment; therefore, NMFS cannot guarantee the confidentiality of any information submitted as part of any project, nor will NMFS accept for consideration any project requesting confidentiality of any part of the project.

Each project must be described as follows:

(1) *Identification of Problem(s):* Describe how existing conditions prevent the full use of Gulf of Mexico fishery resources. In this description, identify:

(a) The fisheries involved;

(b) The specific problem(s) that the fishing industry has encountered;

(c) The sectors of the fishing industry that are affected; and

(d) How the problem(s) prevent the fishing industry from using the fishery resources.

(2) *Project Goals and Objectives:* State what the proposed project will accomplish and describe how this will eliminate or reduce the problem(s) described above. For multi-year projects, describe the ultimate objective of the project and how the individual tasks contribute to reaching the objective. Describe the timeframe in which tasks would be conducted.

(3) *Need for Government Financing Assistance:* Explain why other fund sources cannot fund all the proposed work. List all other sources of funding that are, or have been, sought for the project.

(4) *Participation by Persons or Groups Other Than the Applicant:* Describe the level of participation required in the project(s) by NOAA or other government and non-government entities. Specific NOAA employees should not be named in the proposal, even though the applicant may wish to acknowledge government expertise in an allied areas.

(5) *Federal, State, and Local Government Activities:* List any programs (Federal, State, or local government or activities, including State Coastal Zone Management Programs, Sea Grant, Southeast Area Monitoring and Assessment Program, Pub.L. 99–659 and Cooperative Statistics) this project would affect and describe the relationship between the project and those plans or activities.

(6) *Project Outline:* Describe the work to be performed during the project, starting with the first month's work and continuing to the last month. Identify specific milestones that can be used to track project progress. For multi-year projects, major project tasks and milestones for future years must also be identified. If the work described in this section does not contain sufficient detail to allow for proper technical evaluation,

NMFS will not consider the application for funding and will return it to the applicant.

(7) *Project Management:* Describe how the project will be organized and managed. Include resumes of principal investigators. List all persons directly employed by the applicant who will be involved in the project, their qualifications, and their level of involvement in the project.

(8) *Monitoring of Project Performance:* Identify who will participate in monitoring the project.

(9) *Project Impacts:* Describe the impact of the project in terms of anticipated increased landings, production, sales, exports, product quality, safety, or any other measurable factors. Describe the specific products or services that will be produced by this project. Describe how these products or services will be made available to the fishing industry.

(10) *Evaluation of Project:* The applicant is required to provide an evaluation of project accomplishments in the final report. The application must describe the methodology or procedures to be followed to determine technical or economic feasibility, to evaluate consumer acceptability, or to quantify the results of the project in promoting increased landings, production, sales, exports, product quality, safety, or other measurable factors.

(11) *Total Project Costs:* Total project costs is the amount of funds required to accomplish the proposed statement of work (SOW), and includes contributions and donations. All costs must be shown in a detailed budget. Cost-sharing shall not come from another Federal source. Costs must be allocated to the Federal share and non-Federal share provided by the applicant or other sources. Non-Federal costs are to be divided into cash and in-kind contributions. A standard budget form (ED-357 NG; Rev. 3-80) is available from the offices listed (see **ADDRESSES**). A separate budget must be submitted for each project. An applicant submitting a multi-year project must submit two budgets—one covering total project costs (including individual costs per year) and one covering the initial funding request for the project. The initial funding request must cover funds required during the first 12-month period. NMFS will not consider fees or profits as allowable costs for grantees. To support its budget, the applicant must describe briefly the basis for estimating the value of the non-Federal funds derived from in-kind contributions. Costs for the following categories must be detailed in the budget as follows:

(i) *Personnel.*

(a) *Salaries:* Identify salaries by position and percentage of time and annual/hourly salary of each individual dedicated to the project.

(b) *Fringe Benefits:* Indicate benefits associated with personnel working on the project. This entry should be the proportionate cost of fringe benefits paid for the amount of time spent in the project. For example, if an employee spends 20 percent of his/her time on the project, 20 percent of his/her fringe benefits should be charged to the project.

(ii) *Consultants and Contract Services:* Identify all consultant and/or contractual service costs by specific task in relation to the project. If a commitment has been made prior to application to contract with a particular organization, explain how the organization was selected. Describe the type of contract, budget, deliverables expected, and timeframe. A detailed budget must be submitted (with supporting documentation) for the total amount of funding requested for a subcontractor/consultant. All contracts must meet the standards established in OMB circulars.

(iii) *Travel and Transportation:* Identify number of trips to be taken, purpose, and number of people to travel. Itemize estimated costs to include approximate cost of transportation, *per diem*, and miscellaneous expenses.

(iv) *Equipment, Space or Rental Costs:* Identify equipment purchases or rental costs with the intended use. Equipment purchases greater than $500 are discouraged, since experienced investigators are expected to have sufficient capital equipment on hand. Use of lease to purchase (LTOP) or similar leases are prohibited. Identify space or rental costs with specific uses.

(v) *Other Costs.*

(a) *Supplies:* Identify specific supplies necessary for the accomplishment of the project. Consumable office supplies must be included under Indirect Costs unless purchased in a large quantity to be used specifically for the project.

(b) *Postage and Shipping:* Include postage for correspondence and other project related material, as well as air freight, truck or rail shipping of bulk materials.

(c) *Printing Costs.* Include costs associated with producing materials in conjunction with the project.

(d) *Long Distance Telephone and Telegraph:* Identify estimated monthly bills.

(e) *Utilities:* These costs should be included under Indirect Costs unless purchased in a large quantity to be specifically identified to the project. Identify costs of utilities and percentage of use in conjunction with performance of project.

(f) *Indirect Costs:* This entry should be based on the applicant's established indirect cost agreement rate with the Federal Government. A copy of the current approved negotiated Indirect Cost Agreement must be included. It is the policy of the Department of Commerce that indirect cost shall not exceed direct costs.

(g) *Additional Costs:* Indicate any additional costs associated with the project that are allowable under OMB Circulars A-21, A-87, and A-122.

(d.) *Supporting Documentation:* This section should include any required documents and any additional information necessary or useful to the description of the project. The amount of information given in the section will depend on the type of project proposed. The applicant should present any information that would emphasize the value of the project in terms of the significance of the problems addressed. Without such information, the merits of the project may not be fully understood, or the value of the project to fisheries use may be underestimated. The absence of adequate supporting documentation may cause reviewers to question assertions made in describing the project and may result in a lower ranking of the project. Information presented in this section should be clearly referenced in the project description.

E. Application Submission and Deadline.

1. *Deadline:* (see **dates**)

2. *Submission of Applications to NMFS:* Applications are not to be found in any manner and should be one-sided. All incomplete applications will be returned to the applicant. Applicants must submit one signed original and two (2) copies of the complete application to the NMFS Southeast Regional Office (see **ADDRESSES**). Questions of an administrative nature should be referred to the Grants Management Division, OA321 (see **ADDRESSES**).

IV. Review Process and Criteria

A. Evaluation and Ranking of Proposed Projects

1. For applications meeting the requirements of this solicitation, NMFS will conduct a technical evaluation of each project prior to any other review. This review normally will involve experts from non-NOAA organizations. If an application contains two or more projects, NMFS will evaluate the projects separately. All comments

submitted to NMFS will be taken into consideration in the technical evaluation of projects. NMFS will provide point scores on proposals based on the following evaluation criteria:

a. Adequacy of research/development/demonstration for managing or enhancing Gulf of Mexico marine fishery resources, addressing especially the possibilities of securing productive results (30 points).

b. Soundness of design/technical approach for enhancing or managing the use of Gulf of Mexico marine fishery resources (25 points).

c. Organization and management of the project, including qualifications and previous related experience of the applicant's management team and other project personnel involved (20 points).

d. Effectiveness of proposed methods for monitoring and evaluating the project (15 points).

e. Justification and allocation of the budget in terms of the work to be performed (10 points).

2. Applications will be ranked by NMFS into three groups: (a) Highly recommended, (b) recommended, and (c) not recommended; for presentation to MARFIN Board members. The Board members individually will consider the significance of the problem addressed in the project, along with the technical evaluation and need for funding. The Board members' individual evaluations will aid NMFS in determining the appropriate level of recommended funding for each project.

B. Consultation with Others

NMFS will make project descriptions available for review as follows:

1. *Public Review and Comment:* Applications may be inspected at the NMFS Southeast Regional Office (see ADDRESSES and DATES).

2. *Consultation with Members of the Fishing Industry:* NMFS shall, at its discretion, request comments from members of the fishing and associated industries who have knowledge in the subject matter of a project or who would be affected by a project.

3. *Consultation with Government Agencies:* Applications will be reviewed in consultation with the NMFS Southeast Science and Research Director and appropriate laboratory personnel, NOAA Grants Officer and, as appropriate, Department of Commerce bureaus and other Federal agencies, for elimination of duplicate funding. The Regional Fishery Management Councils (Councils) may be asked to review projects and advise of any real or potential conflicts with Council activities.

C. Funding Decision

After projects have been evaluated, MARFIN Board members individually will submit funding recommendations to the Director of the NMFS Southeast Regional Office (Regional Director). The Regional Director, in consultation with the NOAA Assistant Administrator for Fisheries, will ascertain that the projects do not substantially duplicate other projects that are currently funded by NOAA/NMFS or are approved for funding by other Federal offices, determine the projects to be funded, and determine the amount of funds available for the program. The exact amount of funds awarded to each project will be determined in preaward negotiations between the applicant, the Grants Office, and the NMFS program staff. The Department of Commerce wil review all projects recommended for funding before an award is executed by the Grants Officer. The funding instrument will be determined by the Grants Officer. Projects shall not be initiated by a recipient until a notice of award is received from the Grants Officer. For multiyear projects, funds will be provided when specified tasks are satisfactorily completed and after NMFS has received MARFIN funds for subsequent fiscal years.

V. Administrative Requirements

A. Obligations of the Applicant

An applicant must:

1. Meet all application requirements and provide all information necessary for the evaluation of the project.

2. Be available, upon request, in person or by designated representative, to respond to questions during the review and evaluation of the project(s).

3. If a project is awarded, manage the day-to-day operations of the project, be responsible for the performance of all activities for which funds are awarded, and be responsible for the satisfactory completion of all administrative and managerial conditions required by the award. This includes adherence to procurement standards set forth in the award and referenced OMB Circulars and Department of Commerce regulations.

4. If a project is awarded, keep records sufficient to document any costs incurred under the award, and allow access to records for audit and examination by the Secretary, the Comptroller of the United States, or their authorized representatives.

5. Fishery data collected during the course of a project that could be pertinent to fishery management needs must be available to NMFS on request, subject to pertinent confidentiality requirements.

6. If a project is awarded, quarterly project status reports on the use of funds, and progress of the project must be submitted to NMFS within 30 days after the end of each calendar quarter. The content of these reports will include, at a minimum:

a. A summary of work conducted, which includes a description of specific accomplishments and milestones achieved;

b. The degree to which goals or objectives were achieved as originally projected;

c. Where necessary, the reasons why goals or objectives are not being met; and

d. Any proposed changes in plans or redirection of resources or activities and the reason therefore.

7. If a project is funded, submit an original and two copies of a final report to NMFS within 90 days after completion of each project. The report must describe the accomplishments of the project and include an evaluation of the work performed and the results and benefits of the work in sufficient detail to enable NMFS to assess the success of the completed project. Results must be described in relation to the project objectives of resolving specific impediments to managing or enhancing fisheries, and be quantified to the extent possible. Potential uses of project results by private industry or fishery management agencies should be specified. Any conditions or requirements necessary to make productive use of project results should be identified.

8. Present completed project results at the annual MARFIN conference and submit an abstract 15 days prior to the conference (September 1991). Travel funds for the Principal Investigator to attend this meeting will be provided by NMFS.

9. Each recipient of MARFIN funding must comply with applicable OMB circulars, Department of Commerce policies and regulations, and NOAA policies and guidelines. The Drug-Free Workplace Act of 1988 requires that all grantees receiving Federal financial assistance must maintain a drug-free workplace. Each award contains DOC standard terms and conditions and NOAA special award conditions that must be met by the recipient.

10. For each project funded, three copies of all publications or reports printed with grant funds must be submitted to the Program Officer. Any publication printed with grant funds must identify the NOAA MARFIN

program as the funding source along with the grant award number. Grant recipients are also requested to submit to the Program Officer three copies of all publications resulting wholly or in part from MARFIN funded projects, to indicate in such publications the role of the MARFIN program in accomplishing the research and, where another Federally funded program provides data sources used in the research, to so indicate.

B. Obligations of the National Marine Fisheries Service

The NMFS Southeast Region will:

1. Provide programmatic information necessary for the proper submission of applications.

2. Provide advice to inform applicants of NMFS fishery management and development policies and goals.

3. Monitor all projects after award to ascertain their effectiveness in achieving project objectives and in producing measurable results. Actual accomplishments of a project will be compared with stated objectives.

4. Refer questions regarding grant management policy and administration from applicants/recipients to the Grants Officer.

C. NOAA Grants Management Officer Responsibility

The NOAA Grants Management Officer is responsible for the execution of NOAA Federal Assistance Awards. The Grants Officer is responsible for the business management aspects of the awards, and serves as the counterpart to the Business Officer of the recipient. The Grants Officer works closely with the Program Officer, who is responsible for the scientific, technical, and programmatic aspects of the project. The official grant file will be maintained by the Grants Officer.

D. Legal Requirements

The applicant will be required to satisfy the requirements of applicable local, state, and Federal laws.

Recipients are subject to the provisions of 31 U.S.C. 1352 entitled "Limitations on use of appropriated funds on certain Federal contracting and financial transaction," more commonly known as the "lobbying disclosure" rule.

Section 319 of Public Law 101–121 generally prohibits recipients of Federal contracts, grants, and loans from using appropriated funds for lobbying the Executive or Legislative branches of the Federal Government in connection with a specific contract, grant, or loan. A "Certification for Contracts, Grants, Loans, and Cooperative Agreements" and the SF–LLL *form*, "Disclosure of Lobbying Activities" (if applicable), are required to be submitted with the application.

Potential recipients may be required to submit an "Identification-Application for Funding Assistance" form (Form CD–346), which is used to ascertain background information on key individuals associated with the potential recipient. The CD–346 form requests information to reveal if any key individuals in the organization have been convicted of, or are presently facing, criminal charges such as fraud, theft, perjury, or other matters pertinent to management honesty or financial integrity. Potential recipients may also be subject to reviews of Dun and Bradstreet data or other similar credit checks.

A false statement on the application may be grounds for denial or termination of funds and grounds for possible punishment by a fine or imprisonment.

Grants awarded pursuant to the Magnuson Fishery Conservation and Management Act, 16 U.S.C. 1854(e), shall be in accordance with the Fisheries Research Plan (comprehensive program of fisheries research) in effect on the date of the award.

Classification

NMFS reviewed this solicitation in accordance with Executive Order (E.O.) 12291 and the Department of Commerce guidelines implementing that Order. This solicitation is not "major" because it is not likely to result in (1) an annual effect on the economy of $100 million or more; (2) a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or (3) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of U.S.-based enterprises to compete with foreign-based enterprises in domestic or export markets. This notice does not contain policies with sufficient federalism implications to warrant preparation of a federalism assessment under E.O. 12612. Prior notice and an opportunity for public comments are not required by the Administrative Procedure Act or any other law for this notice concerning grants, benefits, and contracts. Therefore, a regulatory flexibility analysis is not required for purposes of the Regulatory Flexibility Act.

Information collection requirements contained in this notice have been approved by the Office of Management and Budget (OMB Clearance No. 0648–0178) under the provisions of the Paperwork Reduction Act. Public reporting burden for Agency-specific collection of information elements, exclusive of requirements specified under applicable OMB circulars, is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Regional Director and to OMB (see ADDRESSES).

This program is subject to the provisions of E.O. 12372.

Authority: 16 U.S.C. 753a and 16 U.S.C. 1854(e)

Dated: January 18, 1991.

William W. Fox, Jr.,

Assistant Administrator for Fisheries, National Marine Fisheries Service.

[FR Doc. 91–1834 Filed 1–25–91; 8:45 am]

BILLING CODE 3510–22–M

APPENDIX B

APPROVED 1991 APPLICATION SUMMARIES

MULTI-YEAR PROJECTS

MARFIN PROJECT SUMMARY

3Y2 NA90AAHMF745

Project Title: An international conference on the reduction of bycatch in shrimp trawling operations and alternative harvesting methods for the shrimp fishery.

Project Status/: New ____ Con't X Start 11/1/91 End 11/1/92
Duration Continuation of 24-month project. Date Date

Name, Address, and Telephone Number of Applicant:

Mr. Robert P. Jones
312 E. Georgia St.
Tallahassee, FL 32301 Tel. #: (904) 224-0612

Principal Investigator(s) and "Brief" Statement of Qualification:

Mr. Robert P. Jones, Executive Director
Southeastern Fisheries Association
Tallahassee, FL

Project Objective: 1. To summarize pertinent information on alternate methods of shrimp harvesting and methods to reduce bycatch. 2. Identify future research necessary to reduce bycatch in U.S. shrimp fisheries. 3. Edit and publish invited papers, conference proceedings and management recommendations.

Summary of Work: (For continuing projects, include, briefly, progress t date) Organize and sponsor and international conference of fishery scientists, managers and fishermen to address the problem of bycatch in shrimp trawls and examine alternate harvesting strategies. Additional goals of the conference are to provide recommendations for future research needs and management policies. The conference is scheduled for May, 1992, in Orlando, Florida. Proceedings of the conference will be edited and published for dissemination of pertinent information.

To date project coordinating committee has been established, conference participants have been invited and planning for the conference is moving along.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	$_____	$ 99,650	$_____	$ 131,300
Matching	$_____	$ 17,300	$_____	$ 26,050
Total	$_____	$ 116,950	$_____	$ 157,350

MARFIN PROJECT SUMMARY

Project Title: Spawning biology of shallow-water Gulf of Mexico groupers

Project Status/: Con't Project (2nd year), Start: 1 Oct 1991, End: 30 Sept 1992
Duration

Name, Address and Telephone Number of Applicant:

Dr. Patrick L. Colin, Caribbean Marine Research Center, c/o Florida State University Marine Laboratory, Rt. 1, Box 456, Sopchoppy, FL 32358, 904-697-2340, 904-644-4740, 904-878-0300.

Principal Investigator(s) and Brief Statement of Qualifications:

Drs. Patrick L. Colin and Christopher C. Koenig. The principal investigators are fish biologists of extensive experience. They have been working with western Atlantic groupers for several years, dealing with aspects of distribution, behavior and reproduction.

Project Objctives: To define accurately the timing of (seasonal, lunar and daily), locations of and behavior during spawning by gag and red grouper.

Summary of Work: Gonads will be collected and analyzed from the catch of gag and red grouper taken by commerical and recreational fishermen during a two year period. Additional collections will be made by researchers. SCUBA diving, ROV (remote operating vehicle) and autonomous video systems will be used to document and quantify spawning activity of groupers. Results will permit consideration of alternative management options for Gulf of Mexico groupers.

Since January 1991 collections of gonads from gag and red grouper, and to a lesser extent scamp, black grouper and others, have been made and seasonal patterns are beginning to be apparent. Diving field work has identified typical habitats of northern Gulf of Mexico grouper adults and future study sites have ben eselected. The red grouper have been spawned in the laboratory, using recently captured ripe adults, and attempts to rear the larvae are presently underway.

Project Funding	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	83,539	0	159,889
Matching	16,800	0	32,200
Total	100,339	0	192,089

0X2NAFOAA4MF761

MARFIN PROJECT SUMMARY

Project Title: Recruitment and Habitat Utilization by the Blue Crab, Callinectes Sapidus: The Importance of Juvenile Nursery Habitats to the Fishery

Project Status: Con't X Start Date October 1, 1991 End Date September 30, 1992

Name, Address, Telephone No. of Applicant: Marine Environmental Sciences Consortium, Dauphin Island Sea Lab, P. O. Box 369-370, Dauphin Island, AL 36528

Principal Investigators: Steven Morgan, Kenneth L. Heck, Loren D. Coen and Richard K. Zimmer-Faust

Project Objective: We propose to evaluate and rank the relative importance of nursery habitats for blue crab populations in the north central Gulf of Mexico. This information will enable better forecasts of the size of adult blue crab populations and will permit more prudent exploitation and management of blue crab stocks.

Summary of Work to be Performed and Progress to Date: Our study compares settlement rates of blue crab postlarvae and the abundance and subsequent survival of juvenile blue crabs in marsh and submerged vegetation in Alabama coastal waters during peak recruitment for two years. We will then be able to rank the importance of the most widespread types of "nursery" habitats to the blue crab fishery. In Year I we made daily collections of postlarvae during August-November 1990 at five locations, and biweekly collections of juveniles during August-November at four study sites. In addition, we compared juvenile blue crab survival rates among major "nursery" habitats during summer-fall 1990. Sample processing has continued throughout the period with scheduled completion by July 1, 1991. Year 2 collections are scheduled to begin in July, 1991.

Total Project Cost:

Project Funding:	1991 (2nd Year)	Percentage of Total
Federal	$ 118,148	(65%)
Matching	$ 60,923	(35%)
Total	$179,071	(100%)

MARFIN PROJECT SUMMARY

Project Title: Mortality rates and movement of hook-and-line caught and released red snapper.

Project Status/: Duration New ____ Con't x **Start Date** 10/1/91 **End Date** 09/31/92

Name, Address, and Telephone Number of Applicant:

Jeffrey H. Render
Center for Wetland Resources
Louisiana State University
Baton Rouge, LA 70803

Principal Investigator(s) and "Brief" Statement of Qualification:

Jeffrey H. Render

Charles A. Wilson

Project Objective:

The objective of this project is to determine mortality rates of hook-and-line caught and released red snapper. Three treatments will be tested (control, tagging, air bladder deflation) to determine effects on mortality and survival. Long term survival will be determined thru telemet

Summary of Work: (For continuing projects, include, briefly, progress date)

To date in year 1 of the project 98 red snapper have been experimentally treated and released into specially designed holding pens (32 control, 29 tagged, 37 air bladder deflation). Some fish were not recovered that were tested early in the project due to a failure in the holding pen design. Sucessful modification of the holding pen design was achieved and no further losses occurred. Preliminary results indicate that short term (24-48 hours) mortality may be reduced through air bladder deflation. Long term effects of air bladder deflation are as yet unknown, however, long term effects will be investigated in year 2 with ultrasonic telemetry. Preliminary results also indicate little difference caused by tagging relative to control (no treatment).

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	$ 30,568	$ 47,655	$	$78,223
Matching	$ 3,633	$ 3,633	$	$ 7,266
Total	$ 34,201	$ 51,288	$	$85,489

MARFIN PROJECT SUMMARY

A: Project Title: The Variation of Year-Class Strength and Annual Reproductive Output of Red Drum, Sciaenops ocellatus, and Black Drum, Pogonias cromis, from the Northern Gulf of Mexico

B: Project Status: New __ Cont. X

C: Start: Oct. 1, 1991 End: Sep. 30, 1992

D: Name, Address, and Telephone Number of Applicant:

Louisiana State University
Coastal Fisheries Institute, Center for Wetland Resources
Baton Rouge, Louisiana 70803-7503
(504) 388-6283

E. Principal Investigators: Charles A. Wilson and Daniel W. Beckman
Dr. Wilson has conducted research on red drum life history for 5 years and has 10 years experience with age and growth of fish. Dr. Beckman recently completed his Ph.D. on age and growth of black drum and red drum. He currently directs CFI's Age and Growth Lab.

F. Project Objective: To provide age, year-class strength, and reproductive information needed for management of red drum and black drum in the northern Gulf Mexico, including: 1) Determination of age frequency distributions of populations each year for 3 years, 2) Comparison of year-class strengths and annual growth rates with environmental variables, 3) Estimation of adult mortality rates, 4) Estimation of spawning frequency and batch fecundity and identification of relationships between reproductive output and age, size, and year-class strength, 5) Collection of age, growth, and reproductive information on species caught incidentally with red and black drum.

G. Summary of Work: Red drum and black drum will be randomly sampled from purse seine landings in northern Gulf of Mexico federal waters. Red drum purse seine samples will be collected during the spawning season, and may be augmented with samples from commercial long-line catches. Black drum purse seine samples will be augmented with fish sampled at commercial seafood houses. Length, weights, and sex will be recorded and otoliths and gonads removed from fish sampled. Otoliths will be sectioned and annuli counted for age determination. Female gonads will be sectioned and stained for histological examination, and oocytes will be staged.

Population age-class structure will be compared between years and with environmental variables. Mortality estimates will be made using decline in abundance of consecutive year classes and changes in abundance of individual cohorts over time. Spawning frequency will be estimated utilizing the ratio of spawning females to total mature females. Batch fecundities will be estimated gravimetrically through hydrated oocyte counts. The relationship between batch fecundity, spawning frequency, and age will be determined.

Project Funding	1st Yr. Funds Requested	2nd Yr. Funds Requested	3rd Yr. Funds Requested	Total Funds Requested	Percentage of Total
Federal	$84,200	$84,200	$84,200	$252,600	(90% of Total)
Matching	$ 8,909	$ 8,909	$ 8,909	$ 26,726	(10% of Total)
Total	$93,109	$93,109	$93,109	$279,326	(100% of Total)

MARFIN PROJECT SUMMARY

Project Title: BIOLOGICAL AND CATCH/EFFORT SAMPLING FROM THE DOMESTIC TUNA AND SHARK FISHERIES IN THE NORTHERN GULF OF MEXICO

Project Status: Continuation (3rd year)

Project Duration: October 1, 1989 - September 30, 1992 (3 years)

Applicant: Louisiana Department of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, Louisiana 70898-9000
(504) 765-2371

Principal Investigators: Joseph A. Shepard
Louisiana Department of Wildlife & Fisheries
&
Sandra J. Russell (504) 388-6507
Coastal Fisheries Institute
Center for Wetland Resources
Louisiana State University
Baton Rouge, Louisiana 70803-7503

Project Objectives:

The goals of this project are to collect biological and catch/effort data from the domestic tuna and shark longline fisheries in the northern Gulf of Mexico, and to collect biological and catch/effort data from the inshore/nearshore shark gill-net fishery in Louisiana.

Summary of Work to be Performed and Work Performed to Date:

LSU observers go to sea aboard commercial tuna and shark longline vessels to record such otherwise unobtainable biological information as species composition, length frequencies, sex ratios, alive/dead status at capture/release, and reproductive conditions of both the catch and by-catch of each set. Also documented are catch/effort parameters for each observed set such as fishing locations and depths; gear configurations (including any variations or innovations); soak times; species and condition (alive/dead) of bait; boat length; moon phase; crew size; numbers of each species retained and discarded; and any details of hotlining if applicable.

LDWF personnel target inshore/nearshore commercial shark gill-net boats to obtain similar biological and catch/effort information.

From October 1, 1989 through April 4, 1991, LSU observers took 47 trips aboard 26 different vessels for a total of 435 sea days. They recorded data from 150 sets (16 for sharks, 12 for swordfish, 122 for tunas) which caught 1,351 yellowfin tuna, 298 swordfish, 832 sharks, 56 blue marlin, 122 white marlin, 48 sailfish, 2 leatherback turtles and 991 miscellaneous species. Negative impacts on this project generated by an inaccurate and unsolicited newspaper article in late November 1990 were overcome by early January 1991 with little loss of sea time.

Project Funding:	Total/3rd Year Funds Requested
Federal	$87,700.00
Matching	8,067.00
Total	$95,767.00

MARFIN PROJECT SUMMARY

Project Title: UTILIZATION OF FISHERIES-INDEPENDENT DATA: FUTURE MANAGEMENT IMPLICATIONS

Project Status: New Con't X Start 1 Feb. 1992 End 31 Jan. 1993

Name, Address, and Telephone Number of Applicant:
Louisiana State University
Coastal Fisheries Institute (504) 388-6734
Center for Wetland Resources
Baton Rouge, Louisiana 70803-7503

Principal Investigator(s):
R. F. Shaw, Ph.D., Associate Professor, LSU
J. G. Ditty, M.S., Research Associate IV, LSU
J. L. Lyczkowski-Shultz, Ph.D., Associate Biologist, Gulf Coast Research Lab (GCRL)
B. H. Comyns, M.S., Research Associate, GCRL
J. R. Warren, M.S., Associate Biologist, Data Analyst, GCRL

Project Objective: Year 3. Utilize fisheries-independent data on early life stages of selected species of commercial and recreational importance in the Gulf of Mexico to: (1) provide data on spawning ecology and early life history for our selected species of current or potential commercial and recreational fisheries concern, i.e., striped mullet, amberjacks, cobia, bluefish, Atlantic spadefish, and tripletail; (2) refine and continue time series of spawner biomass estimates (SBE) for red drum; (3) investigate for red drum the relationship between the abundance of offshore larvae and inshore postlarvae; (4) recommend options regarding long-term monitoring of adult populations using early life stages and data on reproductive parameters.

Summary of Work: Year 3. Continue analysis of gulfwide, SEAMAP-collected ichthyoplankton samples and supporting data for our targeted species of fisheries concern. Provide estimate of red drum spawner biomass for the 1991 season using larval abundance data from a survey of the east LA-MS-AL-west FL inner shelf planned for September 1991. Areal coverage and sampling effort will be same as in 1989 and 1990 surveys and, thus, should yield as precise an estimate of spawner biomass. Precision of the time series (1987-1990) of annual red drum SBE's will be analyzed in relation to the use of larval surveys as a means of indexing and monitoring fluctuation in adult red drum population in the northeastern Gulf. Begin analysis of compiled postlarval red drum abundance data from a daily (1987-) and twice-monthly (1973-) estuarine sampling associated with the Mississippi Fisheries Assessment and Monitoring (FAM) Program; evaluate the 1990 and 1991 daily and/or tri-weekly sampling regime for red drum; compare these data with offshore larval red drum collections; and ultimately develop an offshore larvae to inshore postlarvae recruitment index. Continue investigating linkage between offshore larvae and inshore postlarvae utilizing selected offshore and estuarine databases from Mississippi and Louisiana waters.

Project Funding	Total Funding Requested (3 yrs)	Funds Requested 92-93	Percentage of Total
Federal	$ 238,800	$ 79,600	(80% of Total)
Matching	$ 58,450*	$ 19,858**	(20% of Total)
Total	$ 297,250	$ 99,458	(100% of Total)

*Includes $42,544 of match support from GCRL.
**Includes $14,454 of match support from GCRL.

MARFIN PROJECT SUMMARY

Project Title: MACKEREL AND REEF FISH BIOPROFILE AND CATCH/EFFORT DATA COLLECTION FROM THE NORTHERN GULF OF MEXICO

Project Status: Continuation (3rd year)
Project Duration: October 1, 1991-September 30, 1992 (1 year)
Applicant: Center for Wetland Resources
Louisiana State University
Baton Rouge, Louisiana 70803-7503
(504) 388-6507
Principal Investigator: Sandra J. Russell, Research Assoc. IV
Coastal Fisheries Institute, LSU

Project Objectives:

The goal of this study is to record catch/effort and bioprofile data from the mackerel and reef fish fisheries in the northern Gulf of Mexico.

Project Summary:

The final year of this three-year project will build upon the computerized database of mackerel and reef fish effort and biological information collected by LSU since 1983. Specifically, we will continue to obtain interviews (goal of 170) from both recreational and commercial mackerel and reef fish fishermen. Their catches will be randomly sampled so that at least some fish from every trip are measured (goal of 2,000 fork lengths, each, of king mackerel and red snapper). Spanish mackerel, greater amberjack, common dolphin, tilefish, and other snapper and grouper species will also be measured when available (goal of at least 1,000 fork lengths).

Otoliths and muscle tissue/other organ samples will continue to be collected and shipped to the NMFS-Panama City Lab as per their requirements.

From October 1, 1989 through September 30, 1990, the LSU MARFIN port samplers obtained 60 interviews from commercial fishermen targeting king mackerel and reef fish, and measured 1,491 fish. They attended 4 major saltwater fishing tournaments, measured 65 fish, and obtained otolith and muscle tissue samples. A trip to Texas in July 1990 yielded valuable information about the extent of that state's mackerel and reef fish fisheries.

Political involvement and fishermen cooperation problems came to a head during the spring of 1990 and forced the termination of the main MARFIN port sampler in July. Fishermen cooperation improved substantially after this. Supplemental State/Federal monies supported a replacement port sampler until April 1991, when this MARFIN project picked him up permanently. He averages 15-30 interviews and 3,000 fish lengths per month. He also has been collecting 50 red snapper otoliths and 20 gonads per month for reproductive and age/growth studies at LSU.

Approximately 354 red snapper otoliths have been sectioned to date and age validation is in progress. The oldest fish aged so far was 32 years. Histological slides were made of 77 gonads but no hydrated eggs have been found yet. Post ovulatory follicles are easily discernible and red snapper appear to be batch spawners. In-depth analyses of all of the snapper samples collected during this project will have to await additional funds.

Project Funds:	3rd Year Funds Requested
Federal	$38,730.00
Matching	3,199.00
Total	$41,929.00

MARFIN PROJECT SUMMARY

Project Title: Age Validation of adult black drum in Florida

Project Status/Duration: ContXX New__ Start Date:2/1/92 End Date:1/31/93

Name, Address, and Telephone Number of Applicant:
Florida Department of Natural Resources
3900 Commonwealth Blvd
Tallahassee, Florida 32399
Phone: 813/896-8626 (Department's Florida Marine Research Institute)

Principal Investigator (s) & "Brief" Statement of Qualifications:
Michael D. Murphy: M.S. Wildlife and Fisheries Sciences, Texas A&M University, 1981: ten years active research on life history, population dynamics, and stock assessment of sciaenids off Florida.

Ronald G. Taylor: B.S. Marine Biology, Auburn University, 1970; sixteen years of experience determining aspects of fisheries species composition and fish reproduction.

Project Objective: To determine and validate the age of adult black drum using tetracycline-marked fish.

Summary of Work:
Approximately 300 black drum, each larger than 15 pounds, will be captured from the Mosquito/Indian River lagoonal system, tagged with a numbered internal anchor tag, injected with 30 mg/kg body weight oxytetracycline, and released back into the wild. Subsequent recaptures from this group will have their otoliths sectioned and examined for the number of opaque bands deposited after the fluorescing band of tetracycline. This reference mark will be used to test the hypothesis that one opaque band forms each year and thus are accurate indicators of age. A similar project designed to validate the age determination method for red drum proved successful.

Project Funding	1st Yr Funds Requested(90)	2nd Yr Funds Requested(91)	3rd Yr Funds Requested(92)	Total Funds Requested
Federal	$ 4,000	$ 4,000	$ 4,000	$ 12,000
Matching	0	0	0	0
Total	$ 4,000	$ 4,000	$ 4,000	$ 12,000

NEW PROJECTS

91MF01.A.1.04

MARFIN PROJECT SUMMARY NA17FF0263-01

Project Title: Patterns in the distribution and abundance of fishes and macroinvertebrates in a Louisiana marsh: Shrimp bycatch in inshore, fishery-independent trawl samples

Project Status: New Duration: 1yr, Start Oct. 1, 1991, End Sept. 30, 1992

Principal Investigators:
D. M. Baltz, Associate Professor, Coastal Fisheries Institute & Department of Oceanography and Coastal Science

Name, Address, and Telephone Number of Applicants:
Louisiana State University
Center for Wetland Resources
Baton Rouge, Louisiana 70803-7503
(504) 388-6512

Project Objectives: Management strategies for reducing the bycatch in shrimp fisheries in the northern Gulf of Mexico are hampered by a lack of knowledge of how biological, climatological, and environmental factors influence the composition and recruitment of non-target species in demersal assemblages. Our objectives are (1) to describe seasonal patterns for common species after characterizing interannual variation, (2) to identify relationships between the distribution and abundance of brown and white shrimp and other common species, and (3) identify correlations between climatological forcing variables and anomalies in the abundance patterns of selected species.

Summary of Work: The structure of a demersal assemblage of fishes and macro invertebrates in open-water habitats in a Louisiana estuary changes significantly over space and time; however, the causative factors responsible for changes in the distribution and abundance of common species have not been identified. We will identify seasonal patterns of common species and relate annual variation to climatological variables. A 4.9 meter shrimp trawl has been used to sample the demersal assemblage of fishes and invertebrates at three stations in a central Louisiana marsh on a monthly basis over a 21 year period. Environmental conditions and sampling effort were measured for each sample, and a concurrent climatological data base -- including precipitation, temperature, and river discharge -- exists for the study area. We propose to continue a preliminary analysis of fishery-independent trawl data, summarized below, to identify factors that influence the fish and macroinvertebrate assemblage structure in a central Louisiana estuary.

Project Funding	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$32,162	$32,162	(82%)
Matching	$ 7,188	$ 7,188	(18%)
Total	$39,350	$39,350	(100%)

NA17FF0374-01

MARFIN PROJECT SUMMARY

Project Title: Feasibility Study: Finfish Excluding Gear in Shrimp Trawls in the Western Gulf of Mexico

Project Status/: Duration — New X Con't _____ Start Date 10/1/91 End Date 9/30/92

Name, Address, Telephone Number of Applicant:
Gulf Shrimp Research and Development Foundation, Inc.
2101 S. IH-35, #107, Austin, Texas, 78741
512/448-3828

Principal Investigator(s) and "Brief" Statement of Qualifications:
Lucy L. Gibbs - Executive Director, Gulf Shrimp Research & Development Foundation and Texas Shrimp Association. Ms. Gibbs has managed five projects for the Foundation and is familiar with project evaluation, management and reporting procedures.

Project Objective: Assess the feasibility of gear that will exclude a significant number of finfish from shrimp trawls in the Western Gulf of Mexico while retaining an acceptable level of shrimp, and facilitate the collection of mutually accepted data on shrimp trawl bycatch through participation by industry in NMFS observer programs.

Summary of Work:
1) compile a list of vessel owners willing to participate in the NMFS observer program and assist NMFS personnel in placing observers on cooperating vessels to evaluate prototype finfish reduction devices
2) input data, edit and verify, and disseminate information to interested parties
3) serve cooperatively with the Southeast Regional Bycatch Program in analyzing field data, compiling results and determining feasibility of bycatch reduction gear for the Gulf of Mexico
4) perform field trials on existing new and/or modified designs and evaluate results to provide guidance for changes to improving designs.

Project Funding	1st Year Funds Requested	Total Funds Requested
Federal	$ 95,000	$ 95,000
Matching	$ 72,697	$ 72,697
Total	$167,697	$167,697

NA17FF0375

b. **MARFIN PROJECT SUMMARY**

Project title: Evaluation of shrimp trawls designed to reduce bycatch in inshore waters of Louisiana.

Project status/: New | Start Date: 1 November 1991 | End Date: 31 October 1993
Duration

Name, Address, and Telephone Number of Applicant:

School of Forestry, Wildlife, and Fisheries
Louisiana State University Agricultural Center
Baton Rouge, LA 70803-6202
(504) 388-4178 - Barton D. Rogers

Principal Investigators and "Brief" Statement of Qualification:

Barton D. Rogers - Over 14 years of professional experience in working with estuarine fish and shellfish in inshore waters. Designed five gears for sampling in coastal marshes.

Donna R. Rogers - Over 6 years of professional experience in coastal fisheries research in Louisiana and Florida.

Arthur M. Hoover, Jr. - Over 20 years in design and application of equipment functional operations. Serious interest in improving fisheries resources. Has had a commercial shrimping license for the last 16 years.

Project objectives: To evaluate new and existing fish excluder devices to reduce bycatch by shrimp trawlers in inshore waters and to evaluate bycatch amounts for the trawls currently being used by commercial and recreational shrimpers.

Summary of work to be performed: The catch of up to eight trawls with different fish excluder devices will be compared with the catch of trawls constructed of the standard 5/8" bar mesh used by commercial and recreational shrimpers. A twin trawl, consisting of a test net and a control net will be towed behind a boat. Replicate tows will be taken at three locations representative of the Louisiana inshore shrimp fishery. Approximately 576 tows will be made per year, 288 with experimental trawls and 288 with control trawls. Sampling will take place throughout both the spring and fall shrimp seasons at the three locations. The catch data will be analyzed in terms of numbers, lengths, and weights of shrimp and bycatch species collected.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	Total Funds Requested
Federal	$46,917	$47,150	$94,067
Matching	$36,406	$36,406	$72,812
Total	$83,323	$83,556	$166,879

91MF-91, B.01
NA17FF0376-01

MARFIN PROJECT SUMMARY

Project Title: Shrimp Closures and Their Impact on the Gulf Region Processing and Wholesaling Sector

Project Status: New X Con't ___ **Start:** 10/1/91 **End:** 9/30/93

Name, Address, and Telephone Number of Applicant:

Louisiana State University
Coastal Fisheries Institute
Baton Rouge, Louisiana 70803-7503
(504) 388-6296

Principal Investigator(s):

Walter R. Keithly, Jr., Assistant Professor, Coastal Studies Institute
Kenneth J. Roberts, Professor, Louisiana State University, Sea Grant

Project Objective:

Regulation at the harvesting level impacts not only that component of the seafood industry but also impacts the processing and wholesaling sectors. The overall goal of this project, therefore, is to provide an economic analysis of the Gulf Region shrimp processing and wholesaling sectors and to use their analysis to evaluate the impact of seasonal or area shrimp closures. These closures are being considered to enhance shrimp yields and also for shrimp by-catch reduction.

Summary of Work:

Primary data will be used to accomplish the objectives set forth in this two-year research project. Specifically, financial and other economic data on a representative sample of Gulf Region shrimp processing and wholesaling operations will be collected on a monthly basis for the 1991 year. These data will be summarized to provide an accurate portrayal of the Gulf Region shrimp processing and wholesaling sectors on a monthly basis and by areas within the region. This portrayal can then be used to predict impacts associated with seasonal or area closures.

Project Funding	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$ 64,838	$ 106,198	(74% of Total)
Matching	$ 18,730	$ 37,460	(26% of Total)
Total	$ 83,568	$ 143,658	(100% of Total)

NA17FF0377-01

MARFIN PROJECT SUMMARY

Project Title: Economic Analysis of United States Demand for Swordfish and Econom Effects of Effort Reduction Measures on the Gulf of Mexico Swordfish Fishery.

Project Status/: Duration New X Con't ____ **Start Date** 10/1/91 **End Date** 9/30/92

Name, Address, and Telephone Number of Applicant:

Eric M. Thunberg, James L. Seale
Department of Food anf Resource economics
Univeristy of Florida
Gainesville, FL 32611

Principal Investigator(s) and "Brief" Statement of Qualification:

Eric M. Thunberg, Assistant Professor (Vita attached)
James L. Seale, Associate Professor (Vita attached)

Project Objective:

1. Estimate Demand and Supply relationships for domestic and sources of imported swordfish in response to changes in swordfish management policy.
2. Analyze the economic interrelationships between swordfish and other species in the Gulf of Mexico mid-water longline fishery.

Summary of Work: (For continuing projects, include, briefly, progress date)

The overall project goal is to conduct an analysis of consumer and producer welfare gains and losses for various swordfish management scenarios and the possibilities for indirect effects on other species as a consequence of swordfish policy. Objective 1 will be accomplished by formng a simultaneous equation system describing aggregate swordfish demand and supply equations for domestic and imported supplies of North Atlantic swordfish and for Pacific and Mediteranean sources of swordfish. Simultaneous equation regression procedures will be used to estimate own-price demand elasticities and supply elasticities for each of the sources of swordfish. Objective 2. will use Logbook data and price data to estimate a revenue function for Gulf of Mexico longliners. Own-price and cross-price elasticities will be estimated to assess the technological and economic interrelationships that exist in the mid-water longline fishery

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	$ 43,287	$	$	$ 43,287
Matching	$ 16,141	$	$	$ 16,141
Total	$ 59,248	$	$	$ 59,248

MARFIN PROJECT SUMMARY NA17FF0373-01

Project Title: Bycatch and Catch-Release Mortality of Small Sharks in the Gulf Coast Nursery Grounds of Tampa Bay and Charlotte Harbor.

Project Status/Duration: New X Con't ____ Start Date 10-1-91 End Date 9-30-93

Name, Address, and Telephone Number of Applicant:

Mote Marine Laboratory
1600 Thompson Parkway
Sarasota, Florida 34236
(813) 388-4441

Principal Investigator(s) and "Brief" Statement of Qualification:

Robert E. Hueter, Ph.D.
Staff Scientist and Manager, Shark Biology Program
Mote Marine Laboratory

Project Objective:

Characterize commercial bycatch and catch-release mortality of small sharks in Gulf coast nursery grounds and determine importance of Gulf coast estuaries to early life stages of commercially and recreationally important species of sharks.

Summary of Work: (For continuing projects, include, briefly, progress date)

Sharks have become a valuable finfish resource in the Gulf of Mexico, and the potential impact of bycatch mortality on juvenile sharks inhabiting inshore nursery grounds is high. Commercial bycatch and recreational catch-and-release mortality of juvenile sharks in Tampa Bay and Charlotte Harbor/Pine Island Sound, Florida, will be assessed. Fishery-dependent by-catch surveys, fishery-independent ichthyofaunal surveys, and a large tagging program will be utilized in both estuarine systems. The importance of these two estuaries as pupping and nursery grounds for commercially and recreationally important species of sharks will be evaluated.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	$ 32,143	$ 30,366	$ ---	$ 62,509
Matching	$ 87,095	$ 86,348	$ ---	$ 173,443
Total	$ 119,238	$ 116,714	$ ---	$ 235,952

91MF03.B.03

MARFIN PROJECT SUMMARY

NA17FF0379.01

Project Title: IDENTIFICATION OF STOCK STRUCTURE AND RECRUITMENT PATTERNS FOR THE RED SNAPPER, Lutjanus campechanus, IN THE GULF OF MEXICO

Project Status/ Duration: New X Con't ___ **Start Date** Aug 91 **End Date** Aug 94

Name, Address, and Telephone Number of Applicant:

Stephen A. Bortone
Biology Department
The University of West Florida
Pensacola, FL 32514 (904) 474-2647

Principal Investigator(s) and "Brief" Statement of Qualification:
Dr. Stephen A. Bortone, Professor of Biology, The University of West Florida, experienced in snapper and reef fish biology and systematics.
Dr. Robert W. Chapman, Visiting Associate Professor, Biology Department, Universi of North Carolina, Greenville, with expertise in molecular techniques as they apply to stock identification and biological factors.

Project Objective:

A characterization of the genetic variation and similarities of red snapper captu in the Gulf of Mexico. Genetic characterization of the stocks by adult, juvenile and larval forms as well as regional, seasonal, yearclass, and annual genetic resemblance to determine the factors impacting recruitment.

Summary of Work: (For continuing projects, include, briefly, progre date)

Samples of adult, juvenile, and larval red snapper will be collected seasonally for 2.5 years throughout the Gulf of Mexico. Tissues from these and museum specimens will be analyzed for genetic similarity in mtDNA using the polymerase chain reaction (PCR) technique. This technique is fast, accurate, and less expensive than other molecular techniques. Once the patterns of genetic relationship are established, the data will be analyzed to determine the extent of the stocks of adult, juvenile, and larval red snapper. Additionally, the relationshic of inshore-offshore populations will be determined as well as seasonal changes which may occur due to migration. Age and yearclass information will be correlate with stock limits. The selective mortality between each life stage will be examir as well as differences between year classes to determine the impact that shrimp fishery induced by-catch mortality and other environmental factors may have on recruitment. The overall design of the project will serve as a model upon which further studies on stock identity and selective mortality on recruitment may be based for the continued management of reef fish resources.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Fun Requested
Federal	$89,918	$ 94,415	$ 95,827	$ 280,160
Matching	$	$	$	$
Total	$89,918	$ 94,415	$ 95,827	$ 280,160

NA17FF0380-01 1

MARFIN PROJECT SUMMARY 91MF03C.01

Project Title: Compilation of existing data on the location and areal extent of reef fish habitat on the Mississippi/Alabama/Florida shelf, Eastern Gulf of Mexico.

Project Status/: New __X__ Con't _____ Start 15 Jun 91 End 15 Dec 91
Duration Date Date

Name, Address, and Telephone Number of Applicant:
Continental Shelf Associates, Inc.
759 Parkway Street
Jupiter, Florida 33477
Telephone: (407) 746-7946

Principal Investigator(s) and "Brief" Statement of Qualification: M. John Thompson - Mr. Thompson has been working with the delineation of "live-bottom" and reef fish habitats in the Eastern Gulf of Mexico since 1982. He has successfully managed 2 major habitat mapping efforts and one synthesis effort designating location and areal extent of Eastern Gulf of Mexico reef fish habitats for the Minerals Management Service.

Project Objective: To collect, review, organize, and present both in text form and with accompanying maps, the extent and location of reef fish habitat and nursery areas on the Mississippi/Alabama/Florida continental shelf.

Summary of Work: (For continuing projects, include, briefly, progress to date). This project proposes to identify and map reef fish habitat in the Eastern Gulf of Mexico based on previously conducted field studies and habitat mapping projects. Four major habitat mapping studies have been conducted for the Minerals Management Service in the Eastern Gulf of Mexico since 1983. In addition to these studies, private oil companies have conducted numerous OCS lease block-specific habitat surveys in compliance with State and Federal oil lease stipulations. Both these data sources will be utilized for this mapping effort. A total of 17 1:250,000 scale maps will be generated along with one 1:500,000 scale map of the entire study area. A text report summarizing hectares of reef fish habitat will accompany these maps.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	$ 20,924	$	$	$ 20,924
Matching	$	$	$	$
Total	$ 20,924	$	$	$ 20,924

NA17FF0338-01

MARFIN PROJECT SUMMARY

Project Title: The Collection and Analysis of Red Snapper Catches From The Alabama Charter Boat Fleet

Project Status/ Duration: New X Con't ____ Start Date 10/01/91 End Date 09/30

Name, Address, and Telephone Number of Applicant:

Alabama Department of Conservation & Natural Resources
Marine Resources Division
P. O. Box 189
Dauphin Island, AL 36528

Principal Investigator(s) and "Brief" Statement of Qualification

Walter M. Tatum and Henry G. Lazauski
(See Attachment One and Two)
(205) 968-7576

Project Objective:

To collect and analyze red snapper catches from the Alabama charter boat fleet.

Summary of Work: (For continuing projects, include, briefly, prog date)

Personnel with the Alabama Marine Resources Division will meet with the Alabama charter boat fleet captains and provide captains with measuring boards, data sheets, NMFS charter boat log books, and provide protocol for executing forms and utilizing measuring boards. In addition to standard data collected from NMF mandatory reporting log, captains will provide a separate log on red snapper with total length (mm) and number of individual red snapper caught on each trip. Log will be mailed to MRD at weekly-monthly intervals and data entered into a micro-computer for processing. Three to five percent of all charter trips will be gro truthed by intercepting randomly selected charter boats at their home port marin as they return from their fishing trips. Data collected from the ground truthin intercepts will be used to corroborate log sheets provided by the charter boat captain. It is anticipated that 20-30 captains will participate in this data collection program. Data collected will be provided to the SEFC Panama City Laboratory and length frequency information will be provided to SEFC Miami Labor Analysis of the collected data will be used in developing conservation measures for red snapper resources in the Gulf of Mexico.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total F Request
Federal	$ 30,000	$ 30,000	$ N/A	$ 60,000
Matching	$ -	$ -	$	$ -
Total	$ 30,000	$ 30,000	$ N/A	$ 60,000

NA 17FF0382-01

MARFIN PROJECT SUMMARY

Project Title: SPAWNING AND EARLY LIFE HISTORY OF SNAPPERS IN THE NORTHCENTRAL GULF OF MEXICO.

Project Status/: New_X_ Con't__ Start Date 02/01/92 End Date 01/31/93
Duration

Name, Address, and Telephone Number of Applicant:
Gulf Coast Research Laboratory
P.O. Box 7000
Ocean Springs, MS
(601) 872-4211

Principal Investigators and Qualifications:
J. Lyczkowski-Shultz, Ph.D., Associate Biologist
B.H. Comyns, M.S., Research Associate

Project Objectives: To document and describe within-season snapper spawning curves, larval habitat and distribution patterns, larval diets, and larval development in northcentral Gulf of Mexico waters. These fisheries independent data can then be used to define the temporal and areal extent of snapper spawning, describe the early ecology of young snappers, and build a database for future study of snapper recruitment processes in shelf waters east of the Mississippi River delta, an area of extensive natural hardbottom and expanding artifical reef habitats.

Summary of Work: Ichthyoplankton collections, along with associated environmental measurements, will be taken during summer months of 1992 at 60 to 70 locations on the Mississippi-Alabama-Florida shelf in an area bounded by the 20 m (10 fm) and 100 m (50 fm) isobaths, and 87^0 W longitude. Snapper larvae will be sorted and identified from these samples using critical information gathered during our past MARFIN snapper project. Ethanol-preserved specimens will be archived for future age/growth analyses. Gut contents of red and vermilion snapper larvae from these collections will be described. The developmental morphology of preflexion larvae of red and vermilion snappers, and a complete developmental series of the wenchman will be illustrated and formally described.

Project Funding	Funds Requested
Federal	$ 96,140
Matching	$ 17,852
Total	$113,992

NA17FF0383-01

MARFIN PROJECT SUMMARY

Project Title: Life History Gaps in Red Snapper (Lutjanus campechanus), Swordfish (Xiphias gladius) and Red Drum (Sciaenops ocellatus) in the Northern Gulf of Mexico; Age Determination, Growth and Some Reproductive Biology.

Project Status/: New X Cont. ___ Start Date 10/1/91 End Date 9/30/93
Duration

Name, Address, and Telephone Number of Applicant:

Louisiana State University
Coastal Fisheries Institute, Center for Wetland Resources
Baton Rouge, Louisiana 70803-7503
(504) 388-6283

Principal Investigator: **Charles A. Wilson**- 11 Years experience with research on age, growth and reproductive biology of numerous fish species (red drum,black drum, swordfish,marlin, sheepshead,amberjack and others) **Jeffrey H. Render** - 5 years experience with age, growth, and reproductive biology of mullet, sheepshead, and red snapper

Project Objectives: Improve our knowledge of the life history (age, growth, and reproductive biology) of red snapper from the northern Gulf of Mexico (GOM) and conduct related research on swordfish and red drum. Specific objectives are; 1) validate age estimates using otoliths, estimate age, and describe the reproductive biology of red snapper; 2) attempt age validation of otoliths to age swordfish using samples from the GOM; and 3) intensify our analysis of the bacterial infestation observed in red drum gonads collected during the past 4 years.

Summary of Work: Two current Federal projects (Interagency agreement 512-0042 and NA90AA-H-MF762) provide us with a means to collect (at no new costs) red snapper otoliths and gonads from the commercial fishery and from monthly sampling conducted off an oil and gas structure. Similarly swordfish otolith samples are available through a MARFIN funded tuna longline data collection program (NA90AA-H-MF728). Lengths, weights, and sex will be recorded and otoliths and gonads removed from fish sampled. Otoliths will be sectioned and annuli validated and counted for age determination. Snapper gonads will be sectioned and stained for histological examination, and oocytes will be staged. Spawning frequency and batch fecundities will be estimated and reproductive biology described. Swordfish gonads,when available, will be retained for future analysis.

Red drum are collected under MARFIN project (NA90AA-H-MF093) to monitor age frequency composition of the offshore population. We recently found red drum gonads from these collections to be infested with a bacterium that has raised concern about spawning potential. We are requesting funds to intensify our screening of this infection and include the help of a pathologist to determine its effect on spawning.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	Total Funds Requested
Federal	$ 40,000	$40,000	$ 80,000
Matching	$ 3,917	$ 3,917	$ 7,834
Total	$ 43,917	$43,917	$ 87,834

91MF055.A01

NA17FF0384-01

MARFIN PROJECT SUMMARY

Project Title: Supplement biological data from commercial landings of Spanish mackerel (Scomberomorus maculatus) in south Florida.

Project Status/Duration: New Start Date: 12/1/1991 End Date: 11/30/94

Name, Address, and Telephone Number of Applicant: University of Miami
Rosenstiel School of Marine and Atmospheric Science
4600 Rickenbacker Causeway Miami, FL 33149. Telephone: (305) 361-4741

Principal Investigator: Dr. Nelson M. Ehrhardt, Associate Professor, Division of Marine Biology and Fisheries. Developed and implemented a 3-yr frame survey to supplement Spanish mackerel stock assessment data (1987-1990) under MARFIN. Developed and implemented aereal survey methods to assess mackerel schools in south Florida under S-K funds. Developed and implemented log book system for mackerel spotting pilots (ongoing MARFIN project). Developed utility-per-recruit model to assess mackerel recreational/commercial issues under MARFIN. He is developing with Sea Grant funds a temporal-spatial mackerel population simulator to assess impact of seasonal availabilities and spatial fishing mortalities exerted on mackerel stocks. He is currently carrying out hydroacoustic surveys to assess schooling mackerel biomass in south Florida sponsored by FDNR.

Project Objective: The goal of this project is to improve the data base used to assess Spanish mackerel stocks in the eastern Gulf of Mexico. Objective: to implement a 3-year frame survey to collect supplementary size frequencies and biological samples to determine sex and age compositions of Spanish mackerel commercially caught in south Florida.

Summary of Work: The project consists of sampling catch to obtain representative size and sex frequency distributions from Spanish mackerel landed in the commercial fishery. Sampling effort will be allocated following an experimental design already established with the same objective in a previous MARFIN project. The sampling design has various stratification levels and randomized elements based on the dynamics of fish and fishing operations. The project relies heavily on the participation of fishing vessel captains and fish house owners. Samplers will interact with captains and collect the information at the landing sites. Samplers will participate as observers during selected fishing trips to gain further information on fishing strategies. Primary products will include detailed descriptions of appropriate methods and protocols of the frame survey, the various statistics collected and an evaluation of data collected.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	$68,545	$58,115	$61,365	$188,025
Matching	-	-	-	-
Total	$68,545	$58,115	$61,365	$188,025

9IMF05.B.01
NA 171F0385-01

MARFIN PROJECT SUMMARY

Project Title: Population Genetic Studies of King Mackerel in the Gulf of Mexico

Project Status/: Duration New X Con't Start 1/1/92 End 12/31/93
Date Date

Name, Address, and Telephone Number of Applicant:

Texas A&M Research Foundation
P.O. Box 3578
College Station, Texas 77843
(409) 845-8629

Principal Investigator(s) and "Brief" Statement of Qualifications:

PI: Dr. John R. Gold, Professor of Genetics
Dept. of Wildlife & Fisheries Sciences
Texas A&M University
College Station, Texas 77843
(409) ~~845-5702~~ 847-8778

PI Qualifications: Eighteen years experience in fish genetics research, including work on chromosomes, protein electrophoresis, and nuclear and mitochondrial DNAs. Four years experience working on the population genetics of sciaenid fishes.

Project Objectives:

(1) To determine if significant population substructuring (discrete breeding units) exist within the Gulf king mackerel fishery;

(2) To estimate relative levels of mixing (migration) between or among king mackerel stocks within the Gulf and between the Gulf and Atlantic;

(3) To resolve the issue of king mackerel stocks within the Gulf and provide critical information for sound management of the Gulf king mackerel resource.

Summary of Work: (For continuing projects, include briefly, progress to date)

(1) Appropriate tissues (heart, spleen, and muscle) will be removed (and flash frozen) from 50 adult individuals each (=300 total) from two localities in the Gulf and one locality in the Atlantic during the spring and early summers of 1992 and 1993, and from 100 reproductively active individuals and 100 juveniles sampled from the northcentral Gulf during the spring, summer, and fall of 1992. Lengths will be taken from all individuals, and otoliths, scales, and gonads will be removed from adults for age and sex verification.

(2) The king mackerel mitochondrial (mt)DNA molecule will be cloned and used as a probe to assay king mackerel mtDNA sequence variation using restriction enzyme digestion and Southern hybridization. Allelic variation at a peptidase nuclear gene will be assayed using vertical starch gel electrophoresis.

(3) The resultant data on mtDNA sequence and protein variation will be used to: (a) determine if significant genetic heterogeneity (i.e., the existence of separate breeding stocks) occurs within the Gulf fishery; (b) determine if Atlantic king mackerel comprise a separate stock; and (c) estimate relative levels of migration between and among the localities sampled.

Project Funding	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$ 59,703	$ 122,540	($ 91% of Total)
Matching	$ 5,856	$ 11,819	($ 9% of Total)
Total	$ 65,559	$ 134,359	($ 100% of Total)

NA17FF0386-01

MARFIN PROJECT SUMMARY

Project Title:

King and Spanish Mackerel, Red Grouper and Red Snapper Stock Assessment Study in the Southern Gulf of Mexico

Project Status/Duration: New X Con't ____ Start Date 10/01/91 End Date 12/31/92

Name, Address, and Telephone Number of Applicant:

Mote Marine Laboratory
1600 Thompson Parkway
Sarasota, Florida 34236
(813) 388-4441

Principal Investigator(s) and "Brief" Statement of Qualification:

Karen Burns, Senior Biologist at MML, 12 years experience in the marine environment and sciences. Principal investigator for the past six years of the King and Spanish Mackerel Migration and Stock Assessment Study in the Southern Gulf of Mexico as well as reef fish bioprofile study and reef fish by-catch study.

Project Objective:

Obtain mackerel migration information from Mexican Gulf coast states from tag return data and length/frequency and CPUE data for king and Spanish mackerel. Collect otoliths/sex/fish size data for king and Spanish mackerel, red grouper and red snapper. Obtain 19 years of red grouper and 4 years of red snapper data for analyses.

Summary of Work: (For continuing projects, include, briefly, progress date)

This project can be divided into four integral parts:

I. Movement and Migration of Mackerel

A. Tag Recovery System

II. Length/Frequency Distribution

Obtain length measurements and CPUE data for king and Spanish mackerel, red grouper and red snapper during months of prime harvesting.

III. Otoliths/Sex/Fish Size Data Collection

Obtain otoliths/sex/fish size data, collecting 10 fish of each sex over the available size range in groups of 20 fish within 10 cm intervals for mackerel, red grouper and red snapper.

IV. Obtain and Analyze 19 Years of Red Grouper Data and 4 Years of Red Snapper Data from Mexico.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	$ 103,000	$	$	$ 103,000
Matching	$ --	$	$	$ --
Total	$ 103,000	$	$	$ 103,000

MARFIN PROJECT SUMMARY NA17FF0387-01

Project Title:

Project Status/: New X Con't ____ Start Date 01/01/92 End Date 12/31/92
Duration

Name, Address, and Telephone Number of Applicant:

Raymond R. Wilson, Jr., Ph.D.
University of South Florida, Department of Marine Science
140 - 7th Avenue South
St. Petersburg, FL 33701
(813) 893-9178

Principal Investigator(s) and "Brief" Statement of Qualification:

Raymond R. Wilson, Jr., Ph.D.
Seven years experience in sea-based research,
current experience in grouper research,
past and present Principal Investigator on NOAA-funded projects.

Project Objective:

Determine the survivorship of the released undersized bycatch of red grouper.

Summary of Work: (For continuing projects, include, briefly, progress to date)

Study the in-situ survivorship of the undersized bycatch of red grouper (Epinephelus morio) in the eastern Gulf of Mexico using a combination of fish in traps investigated with ROV's. This sea-based project will involve two 12-day trips to collect and return groupers in traps to their habitats (60 to 240'), and determine survivorship by inspection with ROVs.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	$ 71,157	$	$	$ 71,157
Matching	$ 17,159	$	$	$ 17,159
Total	$ 88,316	$	$	$ 88,316

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MARFIN PROJECT SUMMARY NA17FF0388-01

Project Title: Finfish Processing Sector Changes in Gulf of Mexico Fisheries Under Management/Regulation

Project Status/: New X Con't ____ Start Date 10-1-91 End Date 9-30-92
Duration

Name, Address, and Telephone Number of Applicant:

Louisiana State University
Office of Sea Grant Development
Center for Wetland Resources
Baton Rouge, Louisiana 70803-7503
(504) 388-6348 or 388-2145

Principal Investigator(s) and "Brief" Statement of Qualification:

Dr. Kenneth J. Roberts, Professor, Office of Sea Grant Development
Dr. Walter R. Keithly, Assistant Professor, Coastal Studies Institute

Project Objective:

The goal of the research is to provide an analysis descriptive of Gulf establishments processing or handling finfish species subject to management/ regulation inclusive of shrimp bycatch.

Summary of Work: (For continuing projects, include, briefly, progress date)

Finfish species associated with Gulf management or regulation are the focus. The cumulative impacts of seemingly separate species management at the harvest level will be identified for the processing sector. A database on Gulf processing and handling activities exists from 1970 to 1990. Finfish species to be analyzed include reef fish, mackerels, red drum, shark and those descriptive of commercial use of shrimp bycatch. Changes in the structure of Gulf processing and handling industries will be evaluated in terms of variations in management and regulation. Primary data on imports and bycatch may have to be collected to supplement secondar data.

Project Funding	1st Yr Funds Requested	2nd Yr Funds Requested	3rd Yr Funds Requested	Total Funds Requested
Federal	$ 51,484	$	$	$ 51,484
Matching	$ 6,242	$	$	$ 6,242
Total	$ 57,726	$	$	$ 57,726

1991 IN-HOUSE PROPOSALS

Project Title: MARFIN Program Management

Project Status/: New ___ Start: 10/1/90 End: 9/30/91
Duration Date Date

Name, Address, and Telephone Number of Applicant:

Donald Ekberg
NMFS SERO
9450 Koger Boulevard
St. Petersburg, FL 33702

Principal Investigators and "Brief" Statement of Qualifications:

Donald R. Ekberg, MARFIN Program Officer
Ellie F. Roche, Grants Specialist
Linda Stevens, Secretary

Justification:

Document preparation and dissemination, grant management, and contractor guidance required.

Project Objectives:

Management of FY 1991 MARFIN Program

Summary of Work:

The three major areas of MARFIN Program Management are:

Documents prepared and dissemination include: Federal Register Notice, MARFIN Annual Report, MARFIN Executive Summary, MARFIN Conference Agendas, MARFIN Conference pre-prints, MARFIN Conference proceedings, MARFIN Board meeting agendas, MARFIN Board meeting minutes, and MARFIN operation procedures.

Proposals/Grants Management includes: Proposal receipt, review and dissemination to Board, preparation of "ready proposal" for submission to NCASC, program officer duties as described in DOC orders, maintenance of grant files, and tracking of grant reports and technical monitor coordination.

MARFIN Contrator Guidance includes: Board meetings, Board conference calls, MARFIN conference, and publications.

Major Funding Items: Personnel costs.

Project Funding	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$ 75,000	$ 75,000	(100 % of Total)
Matching	$	$	(% of Total)
Total	$ 75,000	$ 75,000	(100 % of Total)

FY2

TITLE: Educational Tools for Marine Recreational Fishermen to Promote Wise Use and Conservation of Gulf Fishery Resources

PROJECT STATUS/: New___ Con't_X__ Start_11/1/90 End_9/30/91

PRINCIPAL INVESTIGATOR: Ronald L. Schmied
Special Assistant for Recreational Fisheries
National Marine Fisheries Service
9450 Koger Boulevard
St. Petersburg, FL 33702

Principal Investigator(s) and "Brief" Statement of Qualification:

Ronald L. Schmied - Principal Investigator.
As Special Assistant for Recreational Fisheries, Mr. Schmied directs NMFS' recreational fisheries program in the Southeast Region. Ron was awarded a B.S. in Biology from George Mason University (1971) and a Masters' degree in Marine Recreation and Resource Development from Texas A&M in 1975.

Justification: Fishery management agencies have an obligation and practical responsibility to advise anglers of fishing regulations and to encourage their compliance. Further, NMFS and state management agencies are uniquely qualified to educate anglers on catch/release, tag/release, anti-litter, and other resource conservation and ethics issues. Materials are now available to elevate angling ethics issues and launch a regional campaign through a high powered conference that will get necessary commitments and resources. This project proposes to do just that. If successful, the angler ethics program will enhance the effectiveness of our fishery management efforts, create efficiencies in enforcement programs and hopefully help avoid or lessen future management problems.

Project Objectives: The project's goal is to promote conservation, management and wise use of Gulf fishery resources by saltwater anglers by making them more aware and supportive of ethical angling practices. Specific objectives include:

1. Reprint and distribute angler ethics education materials.
2. In cooperation with states and Sea Grant, design a computer-based information network on saltwater sport fishing regulations.
3. Plan and organize a 2-3 day Regional Angler Ethics Conference.

Summary of Work: (For continuing projects, include, briefly, progress to date)

Under previous MARFIN projects, educational tools have been developed dealing with varying aspects of ethical angling. These

have included a brochure summarizing federal sportsfishing regulations for the Gulf area, a 28-minute broadcast quality video entitled "Pass It On" which promotes catch and release fishing, 3 public service announcements on catch/release fishing, a "NMFS Catch and Release Quick Reference Card," a poster/sticker series urging anglers to rise to the challenge of ethical angling and a pamphlet summarizing the entire program. Additional "angler ethics" educational materials have been developed using other MARFIN and Saltonstall-Kennedy grants which focus on fishing tournaments, expanded use of non-traditional species, and expanded gamefish tagging efforts.

This project continues the angler ethics program and has three parts.

Part 1 Reprint angler ethics educational materials for continued distribution to anglers through clubs, bait and tackle shops, states and Sea Grant networks. Copies to include 50,000 stickers, 100,000 catch/release cards, 28,000 pamphlets, and 100 copies of the catch/release video. (Approximate Cost - $14,500).

Part 2 - In cooperation with Gulf states and Sea Grant, develop a computer-based information network to maintain current listings of state and federal sportfishing regulations. This activity will involve a workshop to develop acceptable format, hardware and software specifications as well as update and distribution protocols. (Approximate cost - $4,500).

Part 3 - In cooperation with U.S. F.W.S., states, Sea Grant, and recreational fishing organizations, plan and organize a 2-3-day regional Angler Ethics conference. Activities include convening of a steering committee to develop the meeting agenda and logistical arrangements and printing of announcements and flyers. The conference will likely be held in FY '92 (spring 1992) and will require additional MARFIN funds to supplement other funding sources. (Approximate cost - $10,000)

Major Funding Items:

Part 1: Printing- $14,000; Video Reproduction $500.00
Part 2: Travel/Meeting Support - $4,000; software $500.00
Part 3: Travel/Meeting Support - $8,000; printing $2,000

Project Funding	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$29,000	$_____	(68% of Total)
Matching	$13,747	$_____	(32% of Total)
Total	$42,747	$_____	(100% of Total)

IC3

Project Title: Economic Assessment of the Gulf of Mexico Commercial Reef Fish Fishery

Project Status: New X Start: Jan 1, 1991 End: Dec 31, 1991
Duration Date Date

Name, Address, and Telephone Number of Applicant:

Economic Analysis Group
NMFS, Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, FL 33702
Phone: 813-893-3830

Principal Investigators and "Brief" Statement of Qualifications:

James Waters will be the principal investigator. He has earned a Ph.D. in fishery economics from North Carolina State University and has been employed by the NMFS since 1979. During that time he has prepared economic, statistical and biological analyses of various fisheries, including reef fish, menhaden, spiny lobster and shrimp, in the south Atlantic and Gulf of Mexico.

Justification:

The red snapper fishery is heavily fished, and while regulations were recently strengthened, biological information suggests that additional regulation is necessary. More restrictive regulation will likely cause fishermen to shift to other reef fish, and may lead to serial overfishing and the need for greater regulation of other species within the reef fish complex. However, adequate economic data are not currently available with which to determine the effects of regulation on financial performance. This project would provide some of the required information.

Project Objectives:

The purpose of this proposed project is to provide an economic assessment of the commercial reef fish fishery in the Gulf of Mexico. Specific objectives are to:

1. Survey commercial fishermen to collect information about fishing activities and financial performance;

2. Describe fishing activities and financial performance;

3. Estimate economic relationships, such as production and profit functions, that can be used to evaluate the economic effects of regulation in the fishery;

4. Describe the opportunity costs of commercial fishermen in terms of their ability to shift to other species or land-based employment.

Summary of Work:

This proposal requests funding to collect and key-enter data with the assistance of subcontractors. Data will be collected by personal interviews with fishermen selected in a stratified random sample of persons who have purchased permits to commercially fish for reef fish in the Gulf of Mexico. Descriptions and analyses of the data will be performed by the principal investigator as part of his regular duties. Standard economic and statistical theory will be used throughout the project.

Major Funding Items:

MARFIN funds will be used for data collection, data entry, travel and minor enhancement to an existing personal computer. NMFS funds will provide salary for the PI and all other costs.

Project Funding:	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$65,160	$65,160	(72.0% of Total)
Matching	$25,000	$25,000	(28.0% of Total)
Total	$90,160	$90,160	(100.0% of Total)

#7

Project Title: Economic Analysis of Finfish By-Catch in the Gulf of Mexico Shrimp Fishery

Project Status: New X Start: Nov 1990 End: May 1992
Duration Date Date

Name, Address, and Telephone Number of Applicant:

Economic Analysis Group
NMFS, Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, FL 33702
Phone: 813-893-3830

Principal Investigators and "Brief" Statement of Qualifications:

John Ward is completing a Ph.D. in marine resource economics, has completed a vessel operating cost model and is completing an entry and exit model for the Gulf of Mexico shrimp fishery, and has developed a bioeconomic model of shrimp by-catch for the southeastern region fisheries.

Justification:

Increases in the value of shrimp relative to the costs of fishing and the prices of alternative fishery stocks over the last 30 years have resulted in the significant growth of the Gulf of Mexico shrimp fishing fleet. As the fleet size increased, the total level of by-catch and discard of finfish also increased. This incidental catch by shrimp trawlers has a significant impact on the recreational and commercial finfish operations by reducing the harvestable biomass of valuable finfish species such as red snapper, croaker, sea trouts, red drum, sharks and mackerels. While some of the finfish by-catch is marketed by vessel owners or retained by the crew (shack), much of it is undersized (juveniles) or has relatively little market value for other reasons and is discarded in normal shrimp fishing operations. Reductions in the level of total by-catch and discard could have significant net benefits for both the recreational and commercial finfish fisheries. Regulations such as closed areas, gear restrictions or the establishment of fishing seasons, may reduce total finfish by-catch and discard while increasing the cost of shrimp fishing. Management regulations that establish property rights in the shrimp fishery, such as individual transferable quotas, could reduce fishing effort and subsequently the level of by-catch and discards of finfish while generating net benefits for shrimp fishermen.

It is well known that fishery managers are currently attempting to address shrimp by-catch and this issue will become more important over time. Economics information which describes the outcome of various management approaches will be a major component of the decision process.

Project Objectives:

1. Update existing costs and returns for shrimping by region and by vessel class in the Gulf of Mexico.

2. Generate catch and effort data by region and by vessel class in the Gulf of Mexico from existing NMFS files.

3. Assemble existing data on shrimp by-catch and integrate with new data to be generated by the Galveston and Pascagoula laboratories and perhaps other related efforts.

4. Using the data from objectives 1-3 develop preliminary estimates of the economic effects of alternative by-catch reduction measures.

5. Define additional information requirements for enhancing the analyses performed for objective 4.

Summary of Work:

Existing National Marine Fisheries Service data sets related to by-catch and shrimp and finfish harvesting operations will be integrated with shrimp by-catch data to be collected by the Pascagoula and Galveston Laboratories of the Southeast Fisheries Center. Presently existing cost and returns surveys for shrimp and finfish will be updated using Southeast Regional Office and national data bases including the records maintained by the NMFS financial assistance program. The resulting data sets will be used in developing preliminary estimates of the impact of by-catch reduction measures and determine additional data collection requirements for future analyses. Due to the elimination of access to the Seattle Burroughs computer as of October 1, 1990, this data will be compiled and maintained at the Southeast Regional Office. The compilation and maintenance of an economics research data base is a continuing objective of the NMFS economics program.

Major Funding Items:

MARFIN funds will be used for data entry, travel, ADP training and enhancement of existing personal computer resources. NMFS funds will be used for salaries and all other cost items.

Project Funding:	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$22,000	$22,000	(34.0% of Total)
Matching	$42,800	$42,800	(66.0% of Total)
Total	$64,800	$64,800	(100.0% of Total)

MARFIN PROPOSAL

Project Title: Evaluation of the Impacts of Bycatch Excluder Devices (BEDs) on Finfish and Shrimp Catch Rates in the Gulf of Mexico

Project Status: New Start: Date October 1990 End: Date September 1991

Applicant:

National Marine Fisheries Service (NMFS)
Southeast Fisheries Center, Galveston Laboratory
4700 Avenue U
Galveston, TX 77551-5997
(409) 766-3500

Principal Investigator: Edward F. Klima, Ph.D.
Director
SEFC-Galveston Laboratory

Justification: Concern by resource managers, commercial and recreational fishermen, conservationists and environmentalists with fish bycatch in the shrimp fishery has prompted research on Bycatch Excluder Devices (BEDs). BEDs are still in the initial phase of development. To evaluate their effectiveness will require the collection of data on finfish bycatch from shrimping vessels both offshore and nearshore waters where shrimping is prominent.

Project Objective:

1. Compare catch rates of shrimp, fish and turtles for BED-equipped trawls and trawls without BEDs in selected shrimp fishing areas of the Gulf of Mexico.

Work Summary:

Funding of this proposal will permit NMFS to implement an observer program to collect data and analyze information on finfish and shrimp catch rates with and without BEDs. BED development by government and industry will be tested aboard commercial shrimp boats participating in the projects. Volunteers will be identified through industry contacts (Texas Shrimp Association, etc.)

Observers will be placed on shrimp vessels in Texas, Louisiana, Alabama-Mississippi and Florida that will be "Permitted" to pull trawls with and without TEDs (Trawling Efficiency Devices) while testing BEDs in Gulf of Mexico waters. Fish and shrimp catch will be determined for 1) BED-equipped trawls vs standard trawls and 2) trawls equipped with both TEDs

and BEDs vs TED-equipped trawls. Catch per unit effort (CPUE) will be determined during peak months of the shrimping season (Tables 1 and 2). Standard statistical procedures, including paired t-tests and ANOVAs, will be used to evaluate fishing performance with and without BEDs by region, season, BED type, and bottom type. Both shrimp and finfish catch will be analyzed.

MARFIN will provide funding for 300 observer days, data entry, and other associated expenses (i.e., travel and supplies). SEFC funding will provide for analysis and project management.

A report of first year results will be submitted to MARFIN by January 31, 1992. Assuming MARFIN provides second year funding, the experimental design for the second year will be the same as the first year unless first year results indicate specific improvements.

Major Funding Items:

		Matching	MARFIN
A.	Salaries/BED Evaluation:	50,000*	87,542
B.	Travel Expenses:		12,755
C.	Government Vehicle Costs		7,203
D.	Vessel Charter To Test Sampling Methodology (2 days @ $1,500/day plus salaries for 4 personnel)		5,000
E.	Supplies/Computer		2,500
	TOTAL	50,000*	115,000

Project Funding:	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$115,000	$115,000	(100% of Total)
Matching	$ 50,000	$ 50,000	(100% of Total)
Total	$160,000	$160,000	(100% of Total)

*SEFC Matching

#6

NMFS MARFIN PROPOSAL PROJECT SUMMARY

PROJECT TITLE: Fecundity by Size of Reef Fishes for Spawning Potential Ratios

PROJECT STATUS: New DURATION: October 1990 through September 1991

APPLICANT: Eugene L. Nakamura, Director
NMFS/SEFC/Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
Phone: (904) 234-6541

PRINCIPAL INVESTIGATORS: Dr. Churchill B. Grimes (Technical Supervisor), John H. Finucane (Research Biologist), L. Alan Collins (Research Biologist). All three have past experience and publications in refereed journals on reproductive biology of marine fishes.

JUSTIFICATION

The fishery management plan (FMP) for reef fishes in the gulf was implemented in November 1984. One of the objectives of the plan was to rebuild declining stocks of reef fish. Existing data bases to determine the status of stocks were sparse. Red snapper was the species for which available biological and fishery data were, and still are, the most plentiful. The FMP has since been amended and additional data have been accumulated. Also methods of determining the status of stocks have been refined and the state of overfishing has been quantitatively defined.

Overfishing is defined in terms of the spawning potential ratio (SPR). The most direct and practical method of estimating SPR is the calculation of the ratio of the spawn production of the species when being fished to the spawn production of the species when no fishing is occurring. In practice, the amount of eggs produced by all of the females of a species when the stock is experiencing a fishing mortality is divided by the amount of eggs produced by all of the females of that stock if no fishing mortality were occurring. High risks of subsequent recruitment decline exists when a stock of fish falls below the level of 20 percent SPR.

Acceptable biological catches (ABCs) and total allowable catches (TACs) are determined by the Gulf of Mexico Fishery Management Council to achieve desired levels of SPRs. Thus, for determining SPRs, ABCs, and TACs, information on fecundity by size or by age of females is needed.

PROJECT OBJECTIVE

The objective of this project is to determine fecundities by sizes of females that are caught in the reef fish fisheries. Priority will be given to the following species: red snapper, vermilion snapper, gray snapper, lane snapper, red grouper, gag, scamp, and greater amberjack. Of these species, only for red snapper do previous data on fecundity exist specifically from specimens obtained from the Gulf of Mexico.

SUMMARY OF WORK

Ovaries of reef fishes along with the essential biological and fishery data associated with field collections will be obtained primarily from recreational fisheries (charterboats, headboats, private boats), since most of the commercial fishermen eviscerate their catches at sea. Bioprofile samplers employed by the Southeast Fisheries Center and others with whom cooperative arrangements have been made (e.g., Louisiana State University, Mote Marine Laboratory) will obtain samples primarily at docks and fish processing houses. Ten females in each 10-cm interval of the size range of the species will be sampled each month. Ovaries will be preserved in 10% Formalin. All field samplers will be issued a Bioprofile Sampling Manual, which provides specific instructions on sampling, recording data, handling of samples, and identification of species. If specimens of specific sizes or of specific sampling months become difficult to obtain, purchases of specimens may be made.

Standard laboratory procedures for determining various aspects of the reproductive biology of fishes will be used. In addition to fecundity, size at maturity, spawning season, and ages will be determined. For fecundity, ovaries in late stages of development (i.e., mature or ripe ovaries) will be used. The distribution of egg sizes in the ovaries will be determined. The number of eggs in the largest modal egg-diameter group will be estimated as follows: the ratio of the weight of both ovaries to the weight of the section or wedge of ovary that was examined will be calculated; this ratio will then be multiplied by the total number of eggs of the largest modal group in the examined section. Regressions will be calculated subsequently to relate fecundity with length (or age) of the fish. The regressions will be used to determine egg production by all females of stocks under fishing and under no fishing mortalities for the SPRs.

MAJOR FUNDING ITEMS: Salaries, overtime, and benefits: $43.4K; Equipment (butcher's saw, microtome, etc.): $7.0K; Fish purchases: $7.5K; Supplies and materials: $7.6K.

Project Funding	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal (MARFIN)		$75.00K	53%
Matching (SEFC)		65.51K	47%
Total		$140,51K	100%

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MARFIN PROPOSAL SUMMARY

Project Title: Development of data collection procedures for shark landings and training of port samplers.

Project Status: New

Duration: One year Start Date: October 1990
End Date: September 1991

Name, Address and Telephone Number of Applicant:

Dr. Jose I Castro
NOAA/NMFS/SEFC
75 Virginia Beach Dr.
Miami, FL 33149
(305)-361-4494

Principal Investigators and "Brief" Statement of Qualifications:

Jose I. Castro, Ph.D.: Fisheries biologist and shark specialist for the Southeast Fisheries Center (NOAA/NMFS). Ph.D. dissertation on the reproductive ecology of sharks. Shark biologist for the Food and Agriculture Organization of the United Nations, working on shark fisheries in the Caribbean. Author of **The Sharks of North American Waters**, a field guide to all the species of sharks in North America. Extensive field experience on sharks and shark fisheries.

John Poffenberger: Chief, Data Collection and Analysis Division, Southeast Fisheries Center, Masters Degree in Economics in regulatory assessment, 10 years field experience in data collection for economic and statistical work, three years as Division Chief directing fishery dependent data collections.

Justification: There are about 40 species of sharks caught in the fisheries along the east coast of the United States. The NMFS has been collecting and reporting data on landings all species of sharks under one or several generic categories. If the shark fishery is to be managed effectively and efficiently, statistical collections on the fishery will require species identification and size frequency data by species. The work proposed here will set up procedures and train personnel to produce the type of data needed for the successful management of the shark fishery.

Project Objectives: 1. To develop procedures and manuals for the identification of sharks and shark carcasses by port samplers and observers. 2. To develop species specific measurement formulas and keys for estimating live size and weight of sharks based on carcass dimensions. 3. To develop a training program and to train state and federal port samplers and observers in identification of species of sharks and data collection. 4. To prepare a data file of all data collected for use in assessment and analysis.

Work Summary: Shark fisheries will be sampled to determine local species composition of commercial catches. Identification keys will be constructed for species identification of whole specimens and carcasses by port samplers and fishery observers. Specific formulas will be derived for estimating live (whole) weights from carcasses. A hands-on training program will be developed for samplers and observers where they will learn to produce the type of data needed for effective management of the shark fishery.

Major Funding Items:

Salaries and fringe benefits	$27,497
Travel and transportation	4,800
Per diem	5,100
Equipment	7,810
Specimens	5,000

Project Funding:	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$55,000	$55,000	(39 % of Total)
Matching	$87,000	$87,000	(61 % of Total)
Total	$142,000	$142,000	(100 % of Total)

91 NMFS #8

MARFIN PROJECT SUMMARY

Project Title: Small Pelagics in the Gulf of Mexico

Project Status: Cont. Start: October 1990 End: Sept. 1991
Date Date

Applicant: Dr. Walter R. Nelson
NMFS/SEFC/Mississippi Laboratories
Post Office Drawer 1207
Pascagoula, MS 39568-1207

Principal Investigators:

Wilber R. Seidel, Chief
Division of Harvesting Systems and Fishing Surveys
Mississippi Laboratories

John W. Watson, Chief
Branch of Harvesting Systems
Mississippi Laboratories

Justification:

Small pelagics in the Gulf of Mexico represent a large, potentially valuable, virtually unused latent fishery resource. Biological and ecological data for most of the species are lacking. Without these data, efficient fisheries development is impossible. In response to the recognized potential of the latent small pelagics resource, NMFS has been conducting a research program to develop assessment methods that could be used to begin developing a data base on the distribution and abundance of the resources. This work is near completion and only requires the final standardization of bottom trawls for effective survey implementation. Additional research is also needed on midwater sampling trawls, continued acoustical development to improve overall efficiency and accuracy of resource surveys for small pelagics, and to investigate the ecological importance of the resource. This one-year proposal continues to address the problems and scientific research needs of the small pelagic resource in the Gulf of Mexico.

Project Objectives:

1. Conduct seasonal surveys for coastal herrings in the eastern Gulf, and conduct the first Gulf-wide survey on the coastal herring complex.
2. Continue evaluation of an advanced acoustic integrator system, and implement an acoustic-based survey strategy.
3. Continue gear research to standardize a midwater sampling trawl technology for sampling during acoustic surveys.
4. Conduct gear research to reduce the size of standardized high opening bottom trawls.
5. Sample the harvest of small pelagic resources through a

limited vessel observer activity and by monitoring landings harvested for petfood production.

6. Continue studies of satellite applications for inferring distribution and abundance patterns of selected small pelagics and butterfish.

7. Expand the capabilities of an ROV for studies of underway trawling gear performance and fish-gear interactions.

8. Complete construction and implementation of the experimental seafood processing plant in Pascagoula.

9. Initiate research studies on selected species to develop these into value added products for human food use.

10. Continue technology transfer of research results.

Work Summary:

Seasonal surveys for coastal herrings will be continued in the eastern Gulf, and the first Gulf-wide survey will be conducted on the coastal herring complex. Acoustic surveys with an advanced acoustic digital echo integrator system will be conducted using standardized trawls to develop an acoustic based survey technique. A remotely operated submersible used to identify fish targets will be instrumented and modified to provide midwater target data. Gear research will be continued to optimize midwater trawl technology for survey sampling and to evaluate the trawl for commercial harvest. Gear research will also be conducted to reduce the size of standardized high opening bottom trawls since large catch rates are no longer necessary and a smaller sampling net would be environmentally desirable. Data from surveys will be used with life history data to estimate safe harvest levels. A limited observer activity will be continued, but most of the work will target port sampling for biological data on the small pelagics used in pet food. The developing seafood research laboratory will emphasize research on nutritional and contaminant assessments, fish handling and processing techniques, and on product development. Work will also continue on the application of satellite remote sensing to determine the influence of oceanographic relationships of the distribution and abundance of Gulf of Mexico small pelagics.

Major Funding Items:

	Matching	MARFIN
A. Labor and benefits	247,400	258,200
B. Travel		10,000
C. Contracts		151,000
D. Supplies		23,000
E. Equipment		12,000
F. Other	630,000	5,800
TOTAL	877,400	460,000

Project Funding:	Initial Funds Requested	Total Funds Requested	Percentage of Total Total
Federal	$ 460,000	$ 460,000	(35% of Total)
Matching	$ 877,400	$ 877,000	(65% of Total)
Total	$1377,400	$1377,400	(100% of Total)

#9

MARFIN PROJECT SUMMARY

Project Title: Shrimp Trawl Bycatch Reduction

Project Status: Cont. Start: October 1990 Date End: Sept. 1991 Date

Applicant: Dr. Walter R. Nelson
NMFS/SEFC/Mississippi Laboratories
Post Office Drawer 1207
Pascagoula, MS 39568-1207

Principal Investigators:

Wilber R. Seidel, Chief
Division of Harvesting Systems and Fishing Surveys
Mississippi Laboratories

John W. Watson, Chief
Branch of Harvesting Systems
Mississippi Laboratories

Justification:

Finfish bycatch in shrimp trawls and discarding of the bycatch at sea has become a major concern in the Gulf of Mexico. Red snapper management is currently receiving a lot of attention because of efforts to reestablish population levels, and concerns about the level of trawl bycatch. Other species in the bycatch are also important, and are likely to begin receiving as much attention. The problem must be addressed to seek an effective solution that will significantly reduce the shrimp trawl impact on finfish. However, any solution must not seriously impact the harvest of shrimp. The Harvesting Systems Division of the Mississippi Laboratories was funded by MARFIN in FY-90 to study modifications to certified TEDs to improve their finfish separation rates. These modifications will be ready for commercial vessel testing in 1991 by Southeast Bycatch Program cooperators. In 1991, new approaches will also be developed in cooperation with Program partners to stimulate additional ideas and to develop the ideas into prototype nets for testing on commercial vessels. A key activity of this project will be its input and cooperation with other participants in a region-wide program to extensively test gear under diverse shrimping conditions in the southeast to insure results are representative .

Project Objectives:

1. Complete development and testing of modifications to certified commercial TED designs to increase finfish separation rates.
2. Develop and demonstrate new approaches to separating shrimp from finfish that utilize behavioral differences and can be used independent of TEDs if desired.
3. Provide prototype designs to Southeast Regional Bycatch Program cooperators for testing on commercial vessels under

different shrimping conditions.

4. Provide diver evaluation support to industry, state, and Sea Grant cooperators in their development of alternate prototype modifications to reduce finfish bycatch.

Work Summary: A broad scope program in the Southeast Region will form a cooperative partnership between industry, Federal and state agencies, and academia to address the problem of bycatch in shrimp trawls and seek workable solutions. One of the desired management options is a method to allow unwanted fish to escape from shrimp trawls. Studies conducted by the Harvesting Systems Division of the Mississippi Laboratories in FY-1990 have been directed at modifications to certified Turtle Excluder Devices (TEDs) required for release of sea turtles. Initial ideas are being evaluated for use with either a hard grid or soft webbing style TED. If successful, the gear could also be used without a TED in areas or during seasons which do not require TEDs. Testing and development of this prototype gear will be continued in FY-91 as a partnership effort within the Southeast Regional Bycatch Program. Project activities will be expanded to provide the expertise and unique diving evaluation capability of the Mississippi Laboratories to Southeast Region Bycatch Program research partners. Prototype ideas will be developed cooperatively and test gear provided for testing in the diverse shrimping conditions of the southeast by Program partners from each area who are familiar with local shrimping industry needs and conditions. Trawling tests will be conducted on board cooperating commercial shrimp vessels. Testing will be conducted on as many different shrimp grounds as possible to achieve reliability necessary for operation under commercial conditions, and to demonstrate that the design objectives are feasible without a significant loss of shrimp production. Travel costs and expertise will be provided for "tuning" nets to be used aboard commercial vessels provided through the Texas Shrimp Association and the Gulf and South Atlantic Fisheries Development Foundation utilizing MARFIN grants.

Major Funding Items:

	Matching	MARFIN
A. Salaries, Benefits, Overtime, etc.	$116,000	$154,000
B. Travel	4,000	14,000
C. Vessel Charter	180,000	128,000
D. Equipment	28,000	26,000
E. Supplies	24,000	35,000
TOTAL	$352,000	$357,000

Project Funding:	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$357,000	$357,000	(51% of Total)
Matching	$352,000	$352,000	(49% of Total)
Total	$709,000	$709,000	(100% of Total)

#10

MARFIN PROJECT SUMMARY

Project Title: TED Technology Transfer

Project Status: Cont. Start: October 1990 Date End: Sept. 1991 Date

Applicant: Dr. Walter Nelson
NMFS/SEFC/Mississippi Laboratories
Post Office Drawer 1207
Pascagoula, MS 39568-1207

Principal Investigators:

Wilber R. Seidel, Chief
Division of Harvesting Systems and Fishing Surveys
Mississippi Laboratories

John W. Watson, Chief
Branch of Harvesting Systems
Mississippi Laboratories

Justification:

TED Regulations were in effect and enforced during 1990. Compliance rates with the use of TEDs increased as the year progressed, but because of the initial resistance to using TEDs, many shrimpers hastily installed some type of TED, many homemade, and as a result experienced unnecessary shrimp losses. With the enforcement of TED regulations, shrimpers will be more receptive to training assistance to improve their production. In addition, industry has increased its efforts to develop new or different approaches to reducing turtle capture. New TEDs will require NMFS certification. Technology transfer assistance is still needed to increase compliance with TED regulations, and to improve production rates. New TED certification tests will again be required to evaluate new ideas.

Project Objectives:

1. Provide TED technology transfer by assisting industry, Sea Grant, state agencies with TED expertise through workshops, videos, training demonstrations, and vessel evaluations.
2. Conduct one new-TED certification trial at the Cape Canaveral, Florida ship channel.

Work Summary: TED technology transfer will be continued through demonstrations and direct technical assistance to commercial shrimp vessels. Federal TED regulations may be modified based on findings of the National Academy of Science Sea Turtle Study to expand TED requirements and reduce tow times in inshore waters. These actions will increase demand for TEDs particularly in smaller inshore nets. NMFS will work with TED manufacturers to develop and test TEDs for use in smaller trawls. Operational problems with different TED designs continue to surface as TED use increases in the shrimp fishery. NMFS gear technicians will continue working with individual shrimpers and TED manufacturers to identify the

cause of operational problems and to solve them. Design corrections and specific operational information will be disseminated by written and video reports through Sea Grant extension agents, and direct mailings to gear manufacturers and individuals. Gear technicians will continue to evaluate different TED designs on commercial vessels to provide assistance to shrimpers in choosing the best TED designs for different fishing conditions and type of bycatch encountered. Whenever possible, support will be provided through industry associations, Sea Grant, and state agencies. In addition to technology transfer work, one certification trial for new TEDs will be planned at Cape Canaveral. A certification trial of new TEDs will be conducted in response to direction from the Southeast Regional TED Panel, and development of potentially effective new ideas by industry developers.

Major Funding Items:

	Matching	MARFIN
A. Salaries, benefits, hazardous duty, etc.	99,800	28,500
B. Travel	10,000	6,000
C. Vessel Charter (certification tests - 6 days @ 1,500/day)		9,000
D. TED Supplies	8,200	5,500
E. Technology Transfer Materials (film, video tapes, handout materials)	2,000	1,000
TOTAL	120,000	50,000

Project Funding:	Initial Funds Requested	Total Funds Requested	Percentage of Total
Federal	$ 50,000	$ 50,000	(30% of Total)
Matching	$120,000	$120,000	(70% of Total)
Total	$170,000	$170,000	(100% of Total)

APPENDIX C

BOARD MEETING MINUTES

DRAFT

MARFIN PROGRAM MANAGEMENT BOARD (PMB)
MINUTES
November 2, 1990
Orlando, Florida

The Marfin PMB meeting was held in conjunction with the Third Annual MARFIN Conference during the Sea Fare Exposition in Orlando, Florida. Bob Shipp, Chairman, called the meeting to order at 8:35 a.m. The following were in attendance:

Members
Lucy Gibbs, TSA, Austin, TX
Jack Greenfield, G&SAFDF, Tampa, FL
William S. "Corky" Perret, LDWF, Baton Rouge, LA
Walter Nelson, NMFS, Pascagoula, MS
Bob Shipp, Recreational Industry, Mobile, AL
Larry B. Simpson, GSMFC, Ocean Springs, MS
Wayne Swingle, GMFMC, St. Petersburg, FL
Jack Van Lopik, LSU Sea Grant, New Orleans, LA (J. Cato designee)
Jean B. West, NOAA Grants Mgt. Division, Silver Spring, MO (ex-officio)

Staff
Don Ekberg, NMFS, St. Petersburg, FL
Virginia K. "Ginny" Herring, GSMFC, Ocean Springs, MS
Cynthia B. Dickens, GSMFC, Ocean Springs, MS

Others
Ron Becker, LSU Sea Grant, New Orleans, LA
Brad Brown, NMFS, Miami, FL
Gary Graham, TX A&M Marine Advisory, College Station, TX
Jan J. Harper, B&H Seafood, Freeport, TX
Eddie McCulla, G&SAFDF, Houma, LA
Richard Raulerson, NMFS, St. Petersburg, FL
Wil Seidel, NMFS, Pascagoula, MS
Ron Schmied, NMFS, St. Petersburg, FL

Adoption of Agenda

The agenda was adopted as presented.

Adoption of Minutes

The minutes of the meeting held Monday, September 17, 1990, in New Orleans, Louisiana, were adopted as presented.

Status of FY90 Financial Assistance Awards/Status of FY91 "Federal Register" Notice

Don Ekberg reported the FY90 financial assistance awards have all be made with the one exception of the Foundation's grants which have been held up by inquiries by the Inspector General.

Jean West elaborated that all the fisheries awards were made this year by September 30 with the exception of three that were being held at FARB because of the Inspector General's office. These are MARFIN-funded grants to the Foundation which total $357,182. One of the three awards is being held from FY89. She noted the funds will not be lost; they've been requested for carry over. When the problems have been resolved, they will be awarded as FY91 grant awards. She further stated that funds can be carried over from year to year as long as the carry over request is made. The latest word she has is that the IG is working with the Foundation for the requested information. As soon as the IG request is satisfied, the funds will be cleared and grants awarded.

L. Simpson inquired whether or not any previous grants had been terminated and/or funds deobligated due to other than routine close-outs for completed work. Neither D. Ekberg nor J. West knew of any grants which fell into that category. J. West stated that all grants are continuing as they were awarded.

D. Ekberg stated the Federal Register notice has been completed and sent to Washington two weeks ago. The only changes from last year were the priorities and a section about subgrantees was added which states that there has to be substantial involvement by the grantee as well as the subgrantee. He stated they hope to get it through the system faster than last year, but there is no guarantee. An optimistic estimation to get it back would be January or February. J. West volunteered to be the point of contact in the Washington area and hand carry the notice through each of the offices (FARB, Legal, etc.).

Review of NMFS Proposals for FY91 Funds

Presentations were made by either the principle investigator or Walter Nelson on all NMFS Projects for FY91 (Attachment 1). W. Nelson reported funding for Economic Analysis of the Finfish By-catch in the Gulf of Mexico Shrimp Fishery should be $24,000 rather than $22,000.

The Board discussed C. Perret's hesitation in funding travel on one project. The Board agreed, however, that with special projects like this, travel funds should be provided.

L. Gibbs addressed the industry's problem with bycatch excluder devices (BEDs), and W. Nelson noted that NMFS will work as practically as possible with the industry.

W. Swingle stated that project concerns were not adequately dealing with the finfish bycatch problem. He felt that monies should be freed to further address this issue and does think that the NMFS Regional Director is under a Congressional mandate to address the problem.

The Board was concerned about the high costs and long-term nature of some of the NMFS projects. Some members also felt that MARFIN funds were not appropriate for NMFS activities which are a basic part of their mission (i.e., certification of TEDs, FEDs, etc.)

Given these reservations, however, all NMFS projects (Attachment 1) were recommended for funding in FY91.

Other Business

- The Board agreed that a letter under B. Shipp's signature should be written to Jerry Clark and copied to Richard Condrey. The letter should express the Board's disappointment that the scheduled presentation was not made during the MARFIN Conference.
- Jean West mentioned that the FACA issues has arisen again. It was noted that with the exception of notice of their meetings in the Federal Register, MARFIN is in compliance.
- The next meeting will be held around April or May in Tampa, Florida.
- It was the consensus of the Board for Jack Greenfield to give an update on the Gulf and South Atlantic Fisheries Development Foundation. Greenfield reported that the Foundation was intensively audited over the last two years. The office of the Inspector General (IG) came in and audited two 1986 cooperative agreements. Basically, they found no fraud abuse or wrongdoing but disagreed on the acceptance of certifications matching costs. The practice of the Foundation for 10-12 years was to accept certification of Board members in

activities as documentation of match. The IG felt that the only legitimate documentation would be represented by more basic receipts and other tangible actions. Their finding was that the Foundation should repay to NOAA approximately $900,000. That figure was ultimately reduced to $12,000 after appeal. The debt was paid, and the Foundation thought the issue was resolved.

A second administrative audit followed within two to three months of the initial audit. The audit generally examined administrative practices. A 1988 cooperative agreement was audited, and similar problems were found. The Foundation assumed that the match issue had been resolved, and NOAA appeared to have accepted that position until very recently. On October 1, a call was received from the IG stating that three Marfin projects (bycatch, depuration, and TED technology transfer) were being held because NOAA had not sufficiently addressed cost disallowances from the second audit. No official communication had ever been received on this problem. NOAA's guidance to the Foundation was to begin working directly with the IG. An accounting of any missing match was provided to the IG.

The Foundation has acknowledged the documentation problems and has substantially changed administrative practices. The Foundation now requires the documentation that the IG requires.

The IG has concerns with foundations in general. One concern is that the six foundations appear to have functioned as pass-through organizations without substantially contributing to the conduct of projects and yet incurs administrative costs. NOAA has, therefore, adopted a new policy that will apply to all future MARFIN and S-K proposals. This policy states that the applicants must have substantial involvement in the conduct of the work for which they are making proposals.

Generally, the Foundation is going to have to narrow its focus, employ a little more staff, and carry out in part the projects it undertakes. That does not mean that the Foundation won't be contracting for substantial portions of its work, but the Foundation staff and directors have to be substantially involved in working on the conduct of the project itself. During a recent visit to the Foundation, Dr. Fox stated that in order to begin to accommodate some of the general concerns of the IG about the role of foundations and in order to

strengthen NOAA's case that foundations were indeed necessary for industry cooperation, he had decided that it was wise to make these same new policies to some extent retroactive. In doing so, he's challenged the substantial involvement of the Foundation in three S-K projects. Those projects are the Rangia clam project with LSU, the stone crab limited entry project with North Carolina State, and the skimmer trawl project with North Carolina Sea Grant. The Foundation is in the process of developing a more complete explanation of involvement in those projects, but it is likely that one or two of those projects will end up being funded directly.

The IG's role has been substantially strengthened by an act which passed in 1988 that gives them very broad powers of subpoena and very broad powers to step into the process at any point and hold up grant projects because of their continuing investigation.

Greenfield added that the IG is somewhat concerned about his relationship with the government and the Foundation. A conflict of interest opinion from the department's general counsel was sought last spring. He stated that with cooperation from regional office that he was carefully sequestered from grant related activities during the interim. He clarified that he is on two months terminal annual leave from the NMFS which began October 1 and terminates with his retirement December 1. He became an employee of the Foundation on October 1, and he sees no conflict of interest.

Greenfield stated that a meeting to be held very shortly with the IG's office will resolve these issues. He understands that the IG would like to move forward.

Greenfield further noted that a very constructive meeting was held two weeks ago with Grey Castle. It was determined that as far as NOAA is concerned, the Foundation has a clean bill of health, but because of the IG concerns, the Foundation will be watched and scrutinized. As far as NOAA is concerned, the role of foundations in cooperative programs of value to NOAA is well understood and accepted.

There being no further business, the meeting adjourned at 11:30 a.m.

1991 MARFIN IN-HOUSE PROPOSALS

9/19/90

PROJ#	AFFNAME	PROJNAME	PI	START/END DATE	$
91MFS01	SERO	MARFIN PROGRAM MANAGEMENT	ELBERG, DONALD	10/01/90 09/30/91	175,000.00
91MFS02	SERO	EDUCATIONAL TOOLS FOR MARINE RECREATIONAL FISHERMEN IN THE GOM	SCHMIED, RONALD	10/01/90 09/30/91	329,000.00
91MFS03	SERO	ECONOMIC ASSESSMENT OF THE GOM COMMERCIAL REEF FISH FISHERY	WATERS, JAMES	10/01/90 09/30/91	163,160.00
91MFS04	SERO	ECONOMIC ANALYSIS OF FINFISH BY-CATCH IN THE GOM SHRIMP FISHERY	WARD, JOHN	10/01/90 09/30/91	322,000.00
91MFS05	SEFC	EVALUATION OF THE IMPACTS OF BYCATCH EXCLUDER DEVICES (DEDs) ON FINFISH AND SHRIMP CATCH RATES IN THE GOM	KLIMA, EDWARD	10/01/90 09/30/91	$115,000.00
91MFS06	SEFC	REPRODUCTIVE BIOLOGY OF MENHADEN	NAKAMURA, EUGENE	10/01/90 09/30/91	175,000.00
91MFS07	SEFC	DATA COLLECTION FOR SHARKS	CASTRO, JOSE	10/01/90 09/30/91	155,000.00
91MFS08	SEFL	SMALL PELAGICS RESOURCE SURVEYS	NELSON, WALTER	10/01/90 09/30/91	$460,000.00
91MFS09	SEFC	GEAR DEVELOPMENT FOR BYCATCH REDUCTION	NELSON, WALTER	10/01/90 09/30/91	$257,000.00
91MFS10	SEFL	TED TECHNOLOGY TRANSFER	NELSON, WALTER	10/01/90 09/30/91	150,000.00

Total: $1,303,160.00

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MARFIN PROGRAM MANAGEMENT BOARD (PMB)
Wednesday, May 29/Thursday, May 30, 1991
St. Petersburg, Florida
MINUTES

DRAFT

The meeting held in the conference room of the NMFS Southeast Regional Office was called to order at 9:05 am by Chairman Bob Shipp. The following were in attendance:

Members

Larry B. Simpson, GSMFC, Ocean Springs, MS
Bob Shipp, Recreational Industry, Mobile, AL
Jim Cato, Sea Grant, Gainesville, FL
William S. "Corky" Perret, Gulf States, Baton Rouge, LA
Wayne Swingle, GMFMC, Tampa, FL
Judy Jamison, GASAFDFI, Tampa, FL
Robert Jones, Commercial Industry, Tallahassee, FL
Scott Nichols, NMFS, Pascagoula, MS
Jean West, ex-officio, NOAA Grants, Silver Spring, MD

Staff
Don Ekberg, NMFS, St. Petersburg, FL
Lucia Hourihan, GSMFC, Ocean Springs, MS

Others
Ellie Roche, NMFS, St. Petersburg, FL
Sally Long, NMFS, St. Petersburg, FL
Jack Greenfield, NMFS, St. Petersburg, FL
Ron Schmied, NMFS, St. Petersburg, FL*

*In attendance on May 29, 1991 only.

Adoption of Agenda

It was noted that Scott Nichols would be representing NMFS (not Powers) and the agenda was adopted as presented.

Adoption of Minutes

The minutes of the meeting held November 2, 1990 in Orlando, Florida were amended to delete detail about the Foundation audit, etc. (end of page 3 through page 5) and adopted as amended.

Status of FY91 NMFS Projects

D. Ekberg distributed a listing of the NMFS projects (attachment 1) which had been approved for FY91 funding. The PMB heard project reports from Ekberg,

J. Greenfield, S. Nichols and R. Schmied. The PMB requested to be sent copies of reports resulting from Pascagoula lab's "Gear Development for Bycatch Reduction" project.

Status of FY90 Financial Assistance Projects. Funding Available for FY91 Projects

Ekberg distributed a listing of projects (attachment 2) which had been awarded with FY90 funds in the amount of $1,604,412. Only one of the approved projects (#13.D.01, GASAFDFI, Japanese & Taiwanese Trade Barrier Analysis for GOM Butterfish -- $50,000) had been removed because it was felt that it would better to work through the Fisheries Attache.

Ekberg distributed a breakdown of the FY91 MARFIN allocation (attachment 3) showing a balance of $1,001,000 available for competitive projects. The PMB questioned the $20,000 NMFS assessment and requested to see the 3/14/90 memo (attachment 4). There was discussion regarding the substantive involvement requirement in cooperative agreements (attachment 5).

Presentation of NMFS Priority Listing of Proposals (based on NMFS and other peer review)

Ekberg stated that on the 58 applications there were 334 reviews, 180 being inside reviews and 154 outside reviews. There was an average of six reviews per project with a range of 3-8. A listing of competitive projects showing number of reviews, average score, and NMFS recommendation was distributed (attachment 6). This year's review was attended by a representative of Dr. Fox's office. It was stated that Dr. Fox basically approved of the process.

J. West described a new multi-year concept. Multi-year projects can be sent to FARB one time, asking for an award for the full project. First year's funding would be available and additional funding would be conditional on satisfactory progress and availability of funds. The board endorsed the concept.

S. Nichols briefed members on the NMFS sequential review of proposals and internal and external reviewer comments as proposals were individually discussed. PMB members recused themselves from any deliberation from which they or their employing institution could benefit.

There was discussion regarding travel costs associated with some projects. As a matter of policy the PMB does not approve of the funding of travel for principal investigators to attend various scientific meetings to present results (results are already reported to PMB).

Board Member Comments on NMFS Presentation

One project, 4.B.02 (SE Fisheries Assoc, Inc.) was withdrawn by the principal investigator. As a result of the first day's session (consisting of two rounds) consideration of the following projects was deferred indefinitely as the projects were felt to be inappropriate for FY91 MARFIN funding.

1.A.4.01, Gulf Shrimp Res & Dev Found (Integrated Assessmt of Bycatch Issues in WGOM).

1.A.4.04, Gulf Shrimp Res 7 Dev Found (Ind Innovation: Mod. Shrimp Trawl Gear to Exclude Turt & Finfish in WGOM).

1.A.4.05, Gulf Shrimp Res & Dev Found (Sep of Shrimp Within Shrimp Trawls from Marine Organism by Elect Dev).

1.B.02, LSU (Gulf Shrimpers, Seasonal & Area Closures of GOM: Socioecon Impact Study).

1.B.03, USF (Economic & Fiscal Impact of Controlled Access Management).

1.B.04, TX Parks & Wild Dept. (Exploring Cont-Access Mgmt to Increase Econ Returns in TX In & Offsho).

2.B.1.01, Marine Environmental Science Consortium (Assessmt of Effects of Lg Predator Removal on Coastal Nursery Habitats).

2.B.3.01, GCRL (Characterization of Shark Pop in the NCGOM with a Key to Species Ident).

2.B.3.03, Univ of Miami (Design & Implementation of Stock Assmt Prog to Manage Shark Res).

3.A.01, McIntosh Marine, Inc. (Enhancmt & Managmt of Shallow Water Snappers in GOM by Means Art Reef).

3.B.02, Mote Marine Lab (Age & Growth, Migration & Reprodtn of Red Grouper, Amberjack, Triggerfish).

3.D.01, AL Dept Cons & Natural Res (Age Class Structure of Gray Triggerfish Stocks from EEZ & AL, NCGOM Waters).

3.E.01, TX A&M Res Found (Understdg Displacemt & Species Substitution Among Shark & Reef Fish Anglers).

3.F.02, AL Dept Cons & Natural Res (Analysis of Red Snapper Catches from AL Charter Boat Fleet).

3.F.04, Univ of Miami (Preparation of an Ident Guide for Eggs, Larvae & Juvenile Reef Fish).

3.F.06, Univ of TX at Austin (Spawning and Early Life History Studies of Red Snapper).

4.0.01, MS State Univ (Effect of On-Bd and/or Shoreside Handlg Procedures on Quality of Coastal Herring Species).

4.B.01, MS State Univ (Species Profiles and Predator-Prey Relationship of Red Herring & Rough Scad in GOM).

5.A.03, Mote Marine Lab (Cobia, Amberjack & Dolphin Migration & Life History in GOM & SE FL).

5.A.04, LA Univ Mar Consortium (Recruitmt Patterns & Growth of Young-of-Year Cobia Along LA Coast).

6.0.01, LSU (Appl of Near Real-Time NOAA Satellite Hrpt Data to Coast Fish Mangmt).

6.A.02, Mote Marine Lab (Lab Studies of Survivorship of Undersized Bycatch Red Grouper).

6.A.03, Mote Marine Lab (Det of Hook/Release Mortality of King & S Mackerel, Amberjack, Red Group).

6.B.01, LSU (Dev & Publ of Practical Color Ident Guide to Reef Fish and Saltw Fish).

6.E.01, LSU (Influence of Microhabitat Sel on Growth & Predation of Estuarine Fish).

6.E.02, GCRL (Role & Effect of Eddies/Fronts on Larval Recruitmt of Sel Com Species).

6.E.03, Smithsonian Inst. (Deep-Sea Com Crabs, Family Geryonidae: An Untapped Resource).

6.E.04, Burr Patterson (Upper Galveston Bay Estuary Crab Study).

1.A.1.01, AL Dept Cons & Natural Res (Invest of Bycatch Assoc with 16-ft Rec Shrimp Trawl & Eval Potential Reduction Devices).

1.A.1.02, GCRL (Invest Shrimp Bycatch in MS Waters & Nearshore Northcentral GOM)

1.A.2.01, TX Parks & Wild Dept (Assessment of Impacts of Shrimp Trawl Bycatch on Finfish Stocks).

1.A.3.01, Univ of New Orleans (Social Impact of Bycatch Reg Scenarios on User Groups The Communities).

2.A.1.01, LSU (Compar of LSU Tuna Observer Data with NMFS Swordfish Log Book).

2.B.3.02, VA Inst Marine Science (Dist, Abundance & Stock Composition of Expl Shark Pop of N-CGOM).

3.B.01, Auburn Univ (Effect of Reef Const on Reef Fish Recruitmt, Pop Structure & Movement).

3.F.01, Al Dept Cons & Natural Res (Col & Art Spawng Red Snapper & Rearg of Larvae to Taggable Size for Release into GOM).

4.A.01, LSU (Age & Growth of GOM Latent Res: Specific Emphasis on Gulf Butterfish).

The first day's session adjourned at 5:05 pm with 20 projects remaining for further discussion.

Thursday, May 30, 1991

Chairman Shipp reconvened the meeting at 9:00 am.

Discussion of Plans for 1991 Technical Conference

It was the consensus of the PMB to try to hold the conference (1 1/2 days) in conjunction with the American Fisheries Society meeting scheduled for the second week of September in San Antonio, Texas. A business meeting to establish priorities for FY92 would follow on Thursday morning. Alternative sites for the conference were listed as New Orleans, Mobile and Austin. GSMFC staff will finalize plans for the conference.

Continuation of Board Member Comments on NMFS Presentation

New sheets listing the 20 proposals remaining as a result of the first day's discussions were distributed. Individual member comments continued.

Project 3.F.03, Univ of S AL (Introduction of Yr Class 1 Red Snapper to Art Reef Habitat: Impacts & Empirical Data) was deferred indefinitely as the project was considered inappropriate for FY91 MARFIN funding.

Project 3.D.02, TX A&M Res Found (Pop Genetic Studies of Vermillion Snapper in GOM) at $65,684.00 was listed number one in contingency.

The following 18 projects were considered to be appropriate and approved for FY91 MARFIN funding.

1.A.1.03, Gulf Shrimp Res & Dev Found (Coord Between Ind, NMFS Gal Lab & TX P&W to Facilitate Collection of Data on Bycatch on Shrimp Trawls in WGOM) at $70,000.00.

1.A.1.04, LSU (Patterns in Dist & Abundance of Fishes and Macroinvertebrates in LA) at $32,162.00.

1.A.4.01, Gulf Shrimp Res & Dev Found (Finfish Excluding Gear in Shrimp Trawls in WGOM Study) at $52,000.00.

1.A.4.03, LSU (Eval of Shrimp Trawls Designed to Reduce Bycatch in Inshore Wtrs LA) -- with adding zone 1 -- at $46,917.00 first year, $47,150.00 second year.

1.B.01, LSU (Shrimp Closures & Their Impact on Gulf Region Processg & Wholesaleg) at $64,838.00.

2.A.3.01, Univ of FL (Econ Analysis of US Demand for Swordfish & Effect Reduction Measures) at $43,287.00 for one year only.

2.B.1.02, Mote Marine Lab (Bycatch & Catch-Rel Mortality of Sharks in Gulf Coast Nursery off FL) at $32,143.00.

3.B.03, Univ of W FL (Ident of Stock Structure & Recruitmt Patterns for Red Snapper in GOM) at $89,918.00.

3.C.01, Continental Shelf Assoc, Inc. (Compilation of Existg Data on Location & Areal Extent of Reef Fish Habitat on MS/AL/FL Continental Shelf - EGOM) at $20,924.00

3.D.03, TX Parks & Wild Dept (Trends in Sport-Boat Harvest & Det of Sel Life History of Reef Fish) at $71,738.00.

3.F.05, GCRL (Spawng & Early Life History of Snappers in Northcentral GOM) at $96,140 for one year only.

3.F.07, LSU (Life History Gaps in Red Snapper, Swordfish, Red Drum in NGOM) -- remove red snapper -- at $40,000 each year for two years.

5.A.01, Univ of Miami (Biological Data from Com Landings of Spanish Mackerel in SW FL Fishery) at $68,545.00.

5.A.02, GCRL (Recruitmt Profile for GOM Cobia Rec Fishery & Est Age of Pre-Recruit) at $15,990.00.

5.B.01, TX A&M Res Found (Pop Genetic Studies of King Mackerel in GOM) at $59,703.00.

5.B.02, Mote Marine Lab (King & Spanish Mackerel, Red Grouper & Red Snapper Stock Assmt SGOM) -- king mackerel -- at $75,000.

6.A.01, USF (In-Situ & Lab Studies of Survivorship of Bycatch in Red Grouper Fishery) at $71,157.00.

6.C.01, LSU (Finfish Processg Sector Changes in GOM Fisheries Under Mngmt/Regulation) at $51,484.00.

Other projects which had been previously deferred were considered again and listed in contingency in the following rank order:

2. 1.A.3.01, Univ of New Orleans (Social Impact of Bycatch Reg Scenarios on User Groups the Communities) at $61,262.00.

3. 3.F.02, AL Dept Cons & Natural Res (Analysis of Red Snapper Catches From AL Charter Boat Fleet) at $30,000.00

4. 3.F.01, AL Dept Cons & Natural Res (Col & Art Spawng Red Snapper & Rearg of Larvae to Taggable Size for Release into GOM) at $50,000.00.

5. 4.A.01, LSU (Age & Growth of GOM Latent Res: Specific Emphasis on Gulf Butterfish) at $47,646.00.

6. 3.B.02, Mote Marine Lab (Age & Growth, Migration & Reprodtn of Red Grouper, Amberjack, Triggerfish) at $140,000.00.

There being no further business the meeting was adjourned at 10:45 am.

Subsequent to the meeting, final NMFS selections for FY91 MARFIN (attachment 7) were received.

1991 MARFIN IN-HOUSE PROPOSALS

11/6/90

CJO	APPNAME	PROJNAME	PI	STARTDAT	ENDDATE	$
MMFS01	SERO	MARFIN PROGRAM MANAGEMENT	EKBERG, DONALD	10/01/90	09/30/91	$75,000.00
MMFS02	SERO	EDUCATIONAL TOOLS FOR MARINE RECREATIONAL FISHERMEN IN THE GOM	SCHMIED, RONALD	10/01/90	09/30/91	$23,000.00
MMFS03	SERO	ECONOMIC ASSESSMENT OF THE GOM COMMERCIAL REEF FISH FISHERY	WATERS, JAMES	10/01/90	09/30/91	$65,160.00
MMFS04	SERO	ECONOMIC ANALYSIS OF FINFISH BY-CATCH IN THE GOM SHRIMP FISHERY	WARD, JOHN	10/01/90	09/30/91	$24,000.00
MMFS05	SEFC	EVALUATION OF THE IMPACTS OF BYCATCH EXCLUDER DEVICES (BEDs) ON FINFISH AND SHRIMP CATCH RATES IN THE GOM	KLIMA, EDWARD	10/01/90	09/30/91	$115,000.00
MMFS06	SEFC	REPRODUCTIVE BIOLOGY OF REEFFISH	NAKAMURA, EUGENE	10/01/90	09/30/91	$75,000.00
MMFS07	SEFC	DATA COLLECTION FOR SHARKS	CASTRO, JOSE	10/01/90	09/30/91	$55,000.00
MMFS08	SEFC	SMALL PELAGICS RESOURCE SURVEYS	NELSON, WALTER	10/01/90	09/30/91	$460,000.00
MMFS09	SEFC	GEAR DEVELOPMENT FOR BYCATCH REDUCTION	NELSON, WALTER	10/01/90	09/30/91	$357,000.00
MMFS10	SEFC	TED TECHNOLOGY TRANSFER	NELSON, WALTER	10/01/90	09/30/91	$50,000.00

Total: $1,305,160.00

05/28/91

MARFIN STATUS REPORT (FY 1990)

Grant Number	Years/Total Years	$ Amount	Applicant's Name	Project's Name	Principal Investigator	Status	Start Date
91INA90AAMMF745	1/2	831,650.00	GE FISHERIES ASSOC INC	CONF ON REDUCTION OF BYCATCH SHRIMP TRAWLG OPERATIONS & ALTER HARVTG	JONES, ROBERT	AWARDED 09/14/90	11/01/90
91INA90AAMMF748	1/2	876,350.00	CARIBBEAN MARINE RES CENTER (CMRC)	SPAWNG BIOLOGY OF SHALLOW-WATER BOH GROUPERS	COLIN, PATRICK DR. ET.AL.	AWARDED 09/10/90	10/01/90
91INA90AAMMF761	1/2	850,287.00	MARINE ENVIRONMENTAL SCIENCE CONSORTIUM	RECRUITMT & HABITAT UTIL BY BLUE CRAB: IMPORTANCE OF JUV NURSERY HABITAT	HECK, KENNETH DR., ET.AL.	AWARDED 09/04/90	10/01/90
91INA90AAMMF762	1/2	830,568.00	LSU	MORTALITY RATES & MOVEMENT OF HOOK&LINE CAUGHT & RELEASED RED SNAPPER	RENDER, JEFFREY DR. ET.AL.	AWARDED 09/07/90	10/01/90
91INA90AAMMF729	3/3	828,945.00	MS DEPT OF WILDLIFE FISHERIES & PARKS	MS/NMFS K & S MACKEREL SAMPLG PROG.	BEEREN, FRED, ET.AL.	AWARDED 09/17/90	02/01/91
91INA90AAMMF722	2/2	844,806.00	LSU	AGE,GROWTH,&REPRO BIOLOGY OF AMBERJACK & COBIA FROM COASTAL LA WATERS	THOMPSON, BRUCE DR., ET.AL.	AWARDED 09/18/90	02/01/91
91INA90AAMMF723	2/2	823,940.00	LSU	AGE, GROWTH, DIET & SPAWNING DATE OF YELLOWFIN TUNA IN MS RIVER PLUME	SHAW, RICHARD DR.	AWARDED 09/10/90	02/01/91
91INA90AAMMF724	2/3	884,200.00	LSU	YRA OF YR-CLASS STRENGTH & ANNUAL REPROD OUTPUT OF REDxBLACK DRUM HOBR	WILSON, CHARLES DR., ET.AL.	AWARDED 09/18/90	10/01/90
91INA90AAMMF725	2/3	887,700.00	LA DEPT OF WLF	BIOL & CATCH/EFFORT SAMPLG FROM TUNA & SHARK FISHERIES IN HOBR	SHEPARD, JOSEPH A.	AWARDED 09/18/90	10/01/90
91INA90AAMMF726	2/2	9126,000.00	LA DEPT OF WLF	ENHANCD BENEFITS FROM SHRIMP IN GOM BY OPTMZD SHRIMP MANAGEMENT IN LA	CLARK, JERRY DR., ET.AL.	AWARDED 09/27/90	02/01/91
91INA90AAMMF727	2/3	879,600.00	LSU	UTILIZATION OF FISHERIES-INDEPENDT DATA: FUTURE MANGMT IMPLICATIONS	SHAW, RICHARD DR., ET.AL.	AWARDED 09/05/90	02/01/91
91INA90AAMMF728	2/3	838,730.00	LSU	MACKEREL & REEF FISH BIOPROFILE & CATCH/EFFORT DATA COL FROM HOBR	RUSSELL, SANDRA	AWARDED 09/10/90	10/01/90
91INA90AAMMF730	2/2	88,920.00	OCRL	EARLY LIFE HIST OF SNAPPERS IN COASTAL & SHELF WATERS OF NEGOM	LYCZKOWSKI-SHULTZ, JOANNE DR.	AWARDED 09/17/90	10/01/90
91INA90AAMMF731	2/2	861,101.00	MARINE ENVIRONMENTAL SCIENCE CONSORTIUM	EVAL SUMMER ABUNDANCE & GROWTH IN INSHORE AL & NW FL:ASSMT CLAM CULT	HECK, KENNETH DR.	AWARDED 09/18/90	02/01/91
91INA90AAMMF732	2/2	851,900.00	MARINE ENVIRONMENTAL SCIENCE CONSORTIUM	VALUE OF VEGGAMED HABITATS TO JUVENILE SPOTTED SEATROUT & RED DRUM	HECK, KENNETH DR., ET.AL.	AWARDED 09/18/90	02/01/91
91INA90AAMMF733	2/2	842,190.00	UNIV OF S AL	INVEST OF LIFE HIST PARAMENTERS OF SPECIES OF SECOND REEF FISH & DOLPH	SHIPP, ROBERT L. DR.	AWARDED 09/14/90	02/01/91
91INA90AAMMF734	2/3	84,000.00	FL DNR	AGE VALIDATION OF ADULT BLACK DRUM IN FL	MURPHY, MICHAEL, ET.AL.	AWARDED 09/14/90	02/01/91
91INA90AAMMF735	2/2	825,000.00	UNIV OF MIAMI	IMPLEMT OF LOG BOOK SYS FOR SPOTTER PILOTS & FLEET CAPT RCD MACKEREL	EHRHARDT, NELSON DR.	AWARDED 09/28/90	02/01/91
NA17FF0233-01	1/1	$100,000.00	GSAFDF	MANAGMT OF BYCATCH IN DIRECTED COMMERCIAL FISHERIES IN GOM	JAMISON, JUDY	AWARDED 04/30/91	05/01/91
NA90AAMMF744	1/1	847,135.00	GULF SHRIMP RES & DEV FOUND	FINFISH EXCLUDG GEAR IN SHRIMP TRAWLS IN N. GOM	GIBBS, LUCY	AWARDED 09/18/90	10/01/90
NA90AAMMF747	1/1	875,000.00	MOTE MARINE LAB	COBIA, AMBERJACK,DOLPHIN MIGRATION & LIFE HISTORY STUDY OFF SW FL	BURNS, KAREN ET.AL.	AWARDED 09/14/90	11/01/90
NA90AAMMF749	1/1	850,906.00	FL DNR	INVESTIGATIONS OF INSHORE & OFFSHORE POP DYNAMICS OF SPANISH SARDINES IN N.FL	SUTTER, FREDERICK ET.AL.	AWARDED 09/18/90	02/01/91
NA90AAMMF750	1/1	857,731.00	FL DNR	SPAWNG STOCK AND EXPLOIT/ESCAPE OF BLACK MULLET	MAHMOUDI, BENZAD DR.	AWARDED 09/18/90	10/01/90
NA90AAMMF752	1/1	875,000.00	MOTE MARINE LAB	K & SPANISH MACKEREL MIGRATION & STOCK ASSESMT STUDY IN GOM	BURNS, KAREN	AWARDED 09/10/90	11/01/90
NA90AAMMF754	1/1	811,335.00	TX PARKS & WILD DEPT	SOCIOECONOMIC IMPACTS OF REC REEF FISH FISHERMEN IN TX	MATLOCK, GARY DR. ET.AL.	AWARDED 09/18/90	10/01/90
NA90AAMMF755	1/1	834,623.00	TX A&M RES FOUND	GENETIC STUDIES TO DET STOCK STRUCTURE OF REEF FISHES IN GOM: PHASE I	GOLD, JOHN DR.	AWARDED 09/04/90	10/01/90
NA90AAMMF756	1/1	850,000.00	TX A&M RES FOUND	SOCIAL & ECONOMIC CHARACTERIZATION OF GOM REC & COM SHARK FISHERIES	BITTON, ROBERT DR.	AWARDED 09/04/90	10/01/90
NA90AAMMF757	1/1	826,393.00	UNIV OF TX AT AUSTIN	DYNAMICS OF ESTUARINE & OFFSHORE RED DRUM STOCKS	FUIMAN, LEE DR.	AWARDED 09/18/90	10/01/90
NA90AAMMF759	1/1	818,893.00	UNIV OF S AL	SPECIES IDENT AND MANAGEMENT OF AMBERJACKS	MCAFEE, BRIDGET	AWARDED 09/18/90	10/01/90
NA90AAMMF763	1/1	838,785.00	LSU	AGE STRUCTURE & REPROD. POTENTIAL OF NGOM OFFSHORE POP OF RED DRUM	WILSON, CHARLES DR. ET.AL.	AWARDED 09/18/90	10/01/90
NA90AAMMF764	1/1	872,530.00	LSU	LARVAL FOOD, GROWTH & MICROHABITAT SELECT: AFFECTING CRUIT OF DEPEND. FISH	BALTZ, DONALD DR. ET.AL.	AWARDED 09/18/90	02/01/91

Total: 1,604,412.00

5/28/91

NATIONAL MARINE FISHERIES SERVICE
SOUTHEAST REGION
FY91 MARFIN ALLOCATION

INITIAL ALLOCATION:		2986.0
IN-HOUSE PROJECTS		
REGIONAL OFFICE (ADMIN.)	75.0	
RECREATIONAL FISHERIES	29.0	
ECONOMICS	89.2	
MISSISSIPPI LABORATORIES	897.0	
GALVESTON LABORATORY	115.0	
PANAMA CITY LABORATORY	75.0	
MIAMI LABORATORY (CASTRO)	55.0	
SUBTOTAL		1335.2
CONTRACT(S):		
GSMFC (ADMIN.)	44.9	
SUBTOTAL		44.9
OTHER:		
MULTI-YEAR AWARDS	584.9	
SUBTOTAL		584.9
NMFS PERM. ASSESS. (3/14/91 MEMO)	20.0	
SUBTOTAL		20.0
BALANCE REMAINING:		1001.0

Attachment 4

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1335 East-West Highway
Silver Spring, MD 20910
THE DIRECTOR

MAR 14 1991

MEMORANDUM FOR: Regional, Science and Office Directors, NMFS

FROM: William W. Fox, Jr.

SUBJECT: FY 1991 NOAA-wide Assessments and Other Increases

Last week, Mike Tillman's memorandum to you on this subject addressed a list of NOAA assessments and increased charges that NMFS is required to take in FY 1991. I have since reviewed these items with Mike, and discussed the various sharing options. The method in which the reductions will be shared involves using the eight percent levy on new and expanded programs, across-the-board assessments, and reductions to specific FMCs as follows:

1. Eight percent levy on new and expanded programs.

- Gramm-Rudman-Hollings assessment.....	$769K
- Partial Data Management Initiative (DMI).	509K
- Partial Common Services (CS) increase....	28K
Subtotal	$1,306K

2. Across-the-board based on permanent FMC allowances.

- Remainder of DMI (total $1,367K).....	$858K
- Remainder of CS increase (total $804K)...	776K
- Administrative Law Judge increase.....	100K
- Federal Register increase.....	60K
Subtotal	$1,794K

3. Reductions to specific FMCs.

- Locality pay increase.....	$561K
- Western Regional ASC shortfall.....	160K
- Silver Spring consolidation lease.....	208K
- Silver Spring utilities/copy center.....	126K
Subtotal	$1,055K
Total	$4,155K

There are a few points I would like to reiterate from Mike's memorandum and a few I would like to add. First, I do not have nor do I intend to maintain in the future significant sums of discretionary funding. Therefore, I fully expect you to plan your future operations within your revised funding allowance.

THE ASSISTANT ADMINISTRATOR FOR FISHERIES

P.2/5

MAR 14 '91 14:27

Second, you are not to make any funding commitment that you cannot fund "totally" within your allowance. Third, and very important, is that these are "permanent" reductions and, thus, require some caveats in handling. For example, if the item being reduced is also proposed for decrease in the FY 1992 budget, the budget amount will be reduced from the FY 1992 NMFS target if the reduction is approved by Congress. The exception is the DMI reprogramming which has been sent to Congress. NOAA has informed us that no other reprogramming notices will be submitted for these assessments. Note that if an item's funding level is reduced by more than $500K or 10 percent, which ever is lower, a reprogramming notice would be required. Finally, if an item (e.g., the MMPA observer funding) is reduced in one FMC, then later allocated to other FMCs, it should not be reduced again by the receiving FMCs to offset the reduction to their allowance.

I want to assure you that I am as disturbed as you are over the magnitude and manner in which these assessments have been handed down by NOAA. The impact of these assessments severely restricts our ability to deal with internal NMFS shortfall problems such as funding the 1990 Amendments to the MFCMA, the fifth quarter funding for the Regional Councils and Columbia River hatcheries, etc. which must be addressed in FY 1991-92. I will be reviewing options to address these and other internal shortfalls over the next few weeks.

Your revised funding allowance for FY 1991 is attached. Please review your allowance carefully as it includes other adjustments (e.g., facilities repair funding, the Driftnet funding allocation, and prior year deobligations) in addition to the assessments listed above. FOP adjustments should be submitted to F/BP no later than Friday, March 22, along with a separate summary sheet identifying the specific program areas and dollar amounts required to cover these assessments. If you have questions about the items and/or amounts being reduced, please call John Oliver on FTS 427-2250.

Attachment

ALLOWANCE ADVICE #SER-3
(Dollars in Thousands)

			OR&F
PREVIOUS.....			10,741.3
CHANGE(S):			
DMI Adjustment - MARFIN (L1A).....	(P)	-20.0	
To F/SEC - MARFIN (L1A).....	(T)	-1,112.0	
Prior Year Deobligations (L2C).....	(T)	-0.5	
Change Line Item - Pay Raise (L1A).....	(P)	43.2	
Change Line Item - Pay Raise (L2B).....	(P)	52.6	
Change Line Item - Market News Transfer (L3B).....	(P)	61.2	
Change Line Item - Market New Transfer (L1A).....	(P)	-61.2	
Change Line Item - SLUC Adj. (L2A).....	(P)	54.2	
Change Line Item - SLUC Adj. (L2C)....	(P)	-54.2	-1,036.7
CURRENT.....			9,704.6

			MF
PREVIOUS.....			617.7
CHANGE(S):			
Change Line Item - Pay Raise (WGN).....	(P)	-95.8	-95.8
CURRENT.....			521.9

... 14 '91 14:29

NOAA GUIDELINES FOR REVIEWING APPLICATIONS FOR GRANTS AND COOPERATIVE AGREEMENTS WHICH INVOLVE CONSULTANTS AND CONTRACTS

Unless otherwise specified by statute, in reviewing applications for grants and cooperative agreements which include consultants and contracts, NOAA will make a determination regarding the following:

Is the involvement of the applicant necessary to the conduct of the project and the accomplishment of its goals and objectives?

Is the proposed allocation of the applicant's time reasonable and commensurate with the applicant's involvement in the project?

Are the proposed costs for the applicant's involvement in the project reasonable and commensurate with the benefits to be derived from applicant's participation?

These criteria are derived from the cost principles in current OMB Circulars.

PROJECT #	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT NAME	YEAR/TOTAL YEARS	START DATE	END DATE	MULTI-YEAR END DATE	$ REQUESTED YEAR 1	$ REQUESTED YEAR 2	$ REQUESTED YEAR 3	TOTAL $ REQUESTED	AVERAGE SCORE	# OF REVIEWS	NMFS RECOMMENDATION
91NF01.A.1.01	AL DEPT CONS & NATURAL RES	HEATH, STEVENS, ET.AL.	INVEST. OF BYCATCH ASSOC. WITH 16-FT. REC SHRIMP TRAWL & EVAL. POTENTIAL REDUCTION DEVICES	1/2	10/01/91	09/30/92	09/30/93	$60,000.00	$60,000.00		$120,000.00	51	6	NR
91NF01.A.1.02	GCRL	WARREN, JAMES	INVEST SHRIMP BYCATCH IN MS WATERS & NEARSHORE NORTHCENTRAL GOM	1/3	03/01/92	02/28/93	02/28/95	$74,848.83	$69,848.83	$69,848.83	$214,546.49	72	6	NR
91NF01.A.1.03	GULF SHRIMP RES & DEV FOUND	GIDOS, LUCY	COORD. BETWEEN IND., NMFS GAL. LAB. & TX P&W TO FACILITATE COLLECTION OF DATA ON BYCATCH ON SHRIMP TRAWLS IN NGOM	1/1	06/01/91	05/30/92		$74,718.00			$74,718.00	63	6	NR
91NF01.A.1.04	LSU	DALTZ, DONALD DR.	PATTERNS IN DIST & ABUNDANCE OF FISHES AND MACROINVERTEBRATES IN LA	1/1	10/01/91	09/30/92		$32,162.00			$32,162.00	84	6	NR
91NF01.A.2.01	TX PARKS & WILD DEPT	OSBORN, MARY ET.AL.	ASSESSMENT OF IMPACTS OF SHRIMP TRAWL BYCATCH ON FINFISH STOCKS	1/3	01/01/92	06/30/93	06/30/95	$85,150.17	$62,201.30	$24,793.51	$172,152.98	50	6	NR
91NF01.A.3.01	UNIV OF NEW ORLEANS	MARGAVIO, ANTHONY DR.	SOCIAL IMPACT OF BYCATCH REG SCENARIOS ON USER GROUPS THE COMMUNITIES	1/2	11/01/91	10/31/92	10/31/93	$61,262.00	$42,987.00		$104,249.00	75	6	R-
91NF01.A.4.01	GULF SHRIMP RES & DEV FOUND	GIDOS, LUCY	FINFISH EXCLUDING GEAR IN SHRIMP TRAWLS IN NGOM STUDY	1/1	10/01/91	09/30/92		$77,385.00			$77,385.00	83	7	R
91NF01.A.4.02	GULF SHRIMP RES & DEV FOUND	GIDOS, LUCY	INTEGRATED ASSESSMT OF BYCATCH ISSUES IN NGOM	1/2	09/01/91	08/31/92	08/31/93	$125,307.00	$130,142.00		$255,449.00	65	7	NR
91NF01.A.4.03	LSU	ROGERS, BARTON	EVAL. OF SHRIMP TRAWLS DESIGNED TO REDUCE BYCATCH IN INSHORE WTRS LA	1/2	11/01/91	10/31/92	10/31/93	$31,917.00	$32,150.00		$64,067.00	73	6	R
91NF01.A.4.04	GULF SHRIMP RES & DEV FOUND	GIDOS, LUCY	INF INNOVATIONS, MOD. SHRIMP TRAWL GEAR TO EXCLUDE TURTLES/FINFISH IN NGOM	1/1	06/09/91	05/30/92		$57,391.00			$57,391.00	60	6	NR
91NF01.A.4.05	GULF SHRIMP RES & DEV FOUND	GIDOS, LUCY	SEP OF SHRIMP WITHIN SHRIMP TRAWLS FROM MARINE ORGANISM BY ELECT DEV	1/1	07/01/91	06/30/92		$44,044.00			$44,044.00	24	6	NR
91NF01.B.01	LSU	KEITHLY, WALTER DR.	SHRIMP CLOSURES & THEIR IMPACT ON GULF REGION;PROCESSR & WHOLESALER	1/2	10/01/91	09/30/92	09/30/93	$64,838.00	$41,360.00		$106,198.00	93	7	NR
91NF01.B.02	LSU	SINGELMANN, J. DR. ET.AL.	GULF SHRIMPERS,SEASONAL, & AREA CLOSURES OF GOM: SOCIOECON IMPACT STDY	1/2	10/01/91	09/30/92	09/30/93	$51,780.00	$99,823.00		$251,601.00	77	6	R
91NF01.B.03	USF	MCHUGH, RICHARD ET.AL.	ECONOMIC & FISCAL IMPACT OF CONTROLLED ACCESS MANAGEMENT	1/1	07/01/91	06/30/92		$42,918.00			$42,918.00	69	7	NR

PROJECT #	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT NAME	CAN. TOTAL YEARS	START DATE	END DATE	MULTI YEAR END DATE	$ REQUESTED YEAR 1	$ REQUESTED YEAR 2	$ REQUESTED YEAR 3	TOTAL $ REQUESTED	AVERAGE SCORE	# OF REVIEWS	NMFS RECOMMENDATION
91MF01.B.04	TX PARKS & WILD DEPT	RIECHERS, ROBIN	EXPLORING CONT-ACCESS MGMT TO INCREASE ECON. RETURNS IN TX IN & OFFSHO	1/2	10/01/91	09/30/92	09/30/93	$80,763.58	$77,694.72		$158,4[illegible]	[illegible]	8	A
91MF02.A.1.01	LSU	FULLER, DEBORAH	COMPAR OF LSU TUNA OBSERVER DATA WITH NMFS SWORDFISH LOG BOOK	1/1	10/01/91	09/30/92		$40,498.00			$40,498.00	70	7	R-
91MF02.A.3.01	UNIV OF FL	THUNBERG, ERIC DR.	ECON ANALYSIS OF US DEMAND FOR SWORDFISH & EFFECT REDUCTION MEASURES	1/2	06/01/91	05/31/92	05/31/93	$43,287.00	$24,649.00		$67,936.00	82	5	R-
91MF02.B.1.01	MARINE ENVIRONMENTAL SCIENCE CONSORTIUM	COEN, LOREN, DR. ET.AL.	ASSESSMT OF EFFECTS OF LG PREDATOR REMOVAL ON COASTAL NURSERY HABITATS	1/3	10/01/91	09/30/92	09/30/94	$75,128.00	$77,844.00	$80,623.00	$291,073.00	77	5	NR
91MF02.B.1.02	MOTE MARINE LAB	HUETER, ROBERT DR.	BYCATCH & CATCH-REL MORTALITY OF SHARKS IN GULF COAST NURSERY OFF FL	1/2	07/01/91	06/30/92	06/30/93	$32,143.00	$30,366.00		$62,509.00	82	6	R
91MF02.B.3.01	GCRL	WALLER, RICHARD	CHARACTERIZATION OF SHARK POP IN THE MCGOM WITH A KEY TO SPECIES IDENT	1/3	10/01/91	09/30/92	09/30/94	117,257.00	$115,735.00	$111,295.00	$344,287.00	58	7	NR
91MF02.B.3.02	VA INST MARINE SCIENCE	BRANSTETTER, STEVE DR. ET.AL.	DIST., ABUNDANCE & STOCK COMPOSITION OF EXPL. SHARK POP OF W-CGOM	1/3	01/01/92	12/31/93	12/31/94	$96,413.00	$96,413.00	$96,413.00	$289,239.00	75	6	NR
91MF02.B.3.03	UNIV OF MIAMI	EHRHARDT, NELSON DR.	DESIGN & IMPLEMENTATION OF STOCK ASSMT PROG. TO MANAGE SHARK RES	1/3	11/01/91	10/31/92	10/31/94	$76,974.00	$79,594.00	$82,125.00	$238,693.00	62	7	NR
91MF03.A.01	MCINTOSH MARINE, INC.	ALEVIZON, WILLIAM DR.	ENHANCMT & MANAGMT OF SHALLOW WATER SNAPPERS IN GOM BY MEANS ART. REEF	1/1	06/01/91	07/01/92		$99,932.00			$99,932.00	70	5	NR
91MF03.B.01	AUBURN UNIV	SZEDLMAYER, STEPHEN	EFFECT OF REEF CONST. ON REEF FISH RECRUITMT, POP. STRUCTURE & MOVEMENT	1/3	09/01/91	08/31/92	08/31/94	$80,410.00	$81,243.00	$79,866.00	$241,519.00	68	6	NR
91MF03.B.02	MOTE MARINE LAB	BURNS, KAREN ET.AL	AGE&GROWTH, MIGRATION&REPRODTN OF RED GROUPER, AMBERJACK, TRIGGERFISH	17MO	08/01/91	12/30/92		185,317.00			$185,317.00	67	6	R
91MF03.B.03	UNIV OF W FL	BORTONE, STEPHEN DR.	IDENT. OF STOCK STRUCTURE & RECRUITMT PATTERNS FOR RED SNAPPER IN GOM	1/3	08/01/91	07/30/92	07/30/94	$89,918.00	$94,415.00	$95,827.00	$280,160.00	82	5	R
91MF03.C.01	CONTINENTAL SHELF ASSOC, INC	THOMPSON, JOHN	COMPILATION OF EXISTG DATA ON LOCATION & AREAL EXTENT OF REEF FISH HABITAT ON MS/AL/FL CONTINENTAL SHELF - EGOM	6MO	06/15/91	12/15/91		$20,924.00			$20,924.00	91	6	NR
91MF03.D.01	AL DEPT CONS & NATURAL RES	TATUM, WALTER ET.AL.	AGE CLASS STRUCTURE OF GRAY TRIGGERFISH STOCKS FROM EEZ & AL, NCGOM WATERS	1/1	10/01/91	09/30/92		$60,000.00			$60,000.00	42	5	NR

PROJECT #	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT NAME	YEAR/TOTAL YEARS	START DATE	END DATE	MULTI YEAR END DATE	$ REQUESTED YEAR 1	$ REQUESTED YEAR 2	$ REQUESTED YEAR 3	TOTAL $ REQUESTED	AVERAGE SCORE	# OF REVIEWS	TRC RECOMMENDATION
91MF03.B.02	TX A&M RES FOUND	GOLD, JOHN DR.	PCR GENETIC STUDIES OF VERMILLION SNAPPER IN GOM	1/2	10/01/91	09/30/92	09/30/93	$65,684.00	$69,864.00		$135,548.00	[illegible]	5	6
91MF03.B.03	TX PARKS & WILD DEPT	OSBORN, M. MS., ET.AL.	TRENDS IN SPORT-BOAT HARVEST & DET OF SEL LIFE HISTORY OF REEF FISH	1/2	10/01/91	09/30/92	09/30/93	$71,738.05	$64,169.65		$135,907.70	72	7	NR
91MF03.E.01	TX A&M RES FOUND	DITTON, ROBERT DR.	UNDERSTNG DISPLACEMT & SPECIES SUBSTITUTION AMONG SHARK & REEF FISH ANGLERS	1/1	01/01/92	12/31/92		$66,350.00			$66,350.00	70	4	NR
91MF03.F.01	AL DEPT CONS & NATURAL RES	TATUM, WALTER	COL. & ART. SPAWNGRED SNAPPER & REARG OF LARVAE TO TAGGABLE SIZE FOR RELEASE INTO GOM	1/3	10/01/91	09/30/92	09/30/94	$70,000.00	$70,000.00	$70,000.00	$210,000.00	53	5	NR
91MF03.F.02	AL DEPT CONS & NATURAL RES	TATUM, WALTER ET.AL	ANALYSIS OF RED SNAPPER CATCHES FROM AL CHARTER BOAT FLEET	1/3	10/01/91	09/30/92	09/30/94	$30,000.00	$30,000.00	$30,000.00	$90,000.00	72	8	R-
91MF03.F.03	UNIV OF S AL	SHIPP, ROBERT DR. ET.AL.	INTRODUCTION OF YR CLASS I RED SNAPPER TO ART REEF HABITAT:IMPACTS & EMPIRICAL DATA	1/3	10/01/91	09/30/92	09/30/94	$69,542.00	$71,432.00	$73,715.00	$214,689.00	59	5	NR
91MF03.F.04	UNIV OF MIAMI	MCGOWAN, MICHAEL DR.	PREPARATION OF AN IDENT GUIDE FOR EGGS, LARVAE,& JUVENILE REEF FISH	1/2	10/01/91	09/30/92	09/30/93	$61,771.00	$67,386.00		$129,157.00	89	6	R
91MF03.F.05	GCRL	LYCZKOWSKI-SHULTZ, J. DR.	SPAWNG & EARLY LIFE HISTORY OF SNAPPERS IN NORTHCENTRAL GOM	1/3	10/01/91	09/30/92	09/30/94	$96,140.00	$106,229.00	$80,622.00	$282,991.00	97	6	R
91MF03.F.06	UNIV OF TX AT AUSTIN	ARNOLD, CONNIE DR. ET.AL.	SPAWNING AND EARLY LIFE HISTORY STUDIES OF RED SNAPPER	1/2	10/01/91	09/30/92	09/30/93	$62,072.00	$64,999.00		$127,071.00	72	4	NR
91MF03.F.07	LSU	WILSON, CHARLES DR.	LIFE HISTORY GAPS IN REDSNAPPER, SWORDFISH, RED DRUM IN NGOM	1/2	10/01/91	09/30/92	09/30/93	$55,609.00	$55,609.00		$111,218.00	76	3	R
91MF04.0.01	MS STATE UNIV	VEAL, DAVID DR.	EFFECT OF ON-BD AND/OR SHORESIDE HANDLG PROCEDURES ON QUALITY OF COASTAL HERRING SPECIES	1/1	07/01/91	06/30/92		$96,636.00			$96,636.00	72	5	NR
91MF04.A.01	LSU	ALLEN, ROBERT ET.AL.	AGE & GROWTH OF GOM LATENT RES: SPECIFIC EMPHASIS ON GULF BUTTERFISH	1/3	10/01/91	09/30/92	09/30/94	$47,646.00	$53,830.00	$53,940.00	$155,416.00	90	4	R-
91MF04.B.01	MS STATE UNIV	PETERSON, MARK DR.	SPECIES PROFILES AND PREDATOR-PREY RELATIONSHIP OF RD.HERRING & ROUGH SCAD IN GOM	1/2	10/01/91	09/30/92	09/30/93	$48,011.00	$51,626.00		$99,636.00	75	5	NR
91MF04.B.02	SE FISHERIES ASSOC INC	JONES, ROBERT ET.AL	FISHRY DEPENDENT FACTORS ON GROWTH, FOOD & FEEDG & ENERGY BUDGETS ON SPECIES ASSOC WITH BAITFISH FISHERY LONG NGOM	1/3	08/01/91	07/31/92	07/31/94	125,987.00	$130,801.00	$137,320.00	$394,108.00	66	5	NR

PROJECT #	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT NAME	YEAR/TOTAL YEARS	START DATE	END DATE	MULTI-YEAR END DATE	$ REQUESTED YEAR 1	$ REQUESTED YEAR 2	$ REQUESTED YEAR 3	TOTAL $ REQUESTED	AVERAGE SCORE	# OF REVIEWS	NMFS RECOMMENDATION
91NF05.A.01	UNIV OF MIAMI	EHRHARDT, NELSON DR.	BIOLOGICAL DATA FROM COM LANDINGS OF SPANISH MACKEREL IN SW FL FISHERY	1/3	12/01/91	11/30/92	11/30/94	$68,545.00	$58,115.00	$61,365.00	$188,025.00	82	6	NR
91NF05.A.02	GCRL	FRANKS, JAMES ET.AL	RECRUITMT PROFILE FOR GOM COBIA REC FISHERY & EST. AGE OF PRE-RECRUIT	1/1	12/01/91	11/30/92		$15,990.75			$15,990.75	58	5	NR
91NF05.A.03	MOTE MARINE LAB	BURNS, KAREN ET.AL.	COBIA, AMBERJACK & DOLPHIN MIGRATION & LIFE HISTORY IN GOM & SE FL	1&3	10/01/91	12/01/92		$74,879.00			$74,879.00	69	5	NR
91NF05.A.04	LA UNIV MAR CONSORTIUM	CHESHEV, EDWARD DR.	RECRUITMT PATTERNS & GROWTH OF YOUNG-OF-YEAR COBIA ALONG LA COAST	1/2	01/01/92	12/31/93	12/31/94	$69,072.00	$68,016.00		$137,488.00	78	7	NR
91NF05.B.01	TX A&M RES FOUND	GOLD, JOHN DR.	POP GENETIC STUDIES OF KING MACKEREL IN GOM	1/2	01/01/92	12/31/93	12/31/94	$59,703.00	$62,837.00		$122,540.00	79	5	R-
91NF05.B.02	MOTE MARINE LAB	BURNS, KAREN	KING & SPANISH MACKEREL, RED GROUPER & RED SNAPPER STOCK ASSMT GOM	1/1	10/01/91	12/31/92		$231,036.00			$231,036.00	74	6	R
91NF06.B.01	LSU	CONDREY, RICHARD DR. ET.AL.	APPL OF NEAR REAL-TIME NOAA SATELLITE AVHRR DATA TO COAST FISH MANGMT	1/3	10/01/91	09/30/92	09/30/94	$56,662.00	$105,260.00	$70,204.00	$332,126.00	73	5	NR
91NF06.A.01	USF	WILSON, RAYMOND DR.	IN-SITU & LAB STUDIES OF SURVIVORSHIP OF BYCATCH IN RED GROUPER FISHERY	1&2	01/01/92	06/30/93		$71,157.00			$71,157.00	84	6	R-
91NF06.A.02	MOTE MARINE LAB	NEIDIG, CAROLE ET.AL.	LAB STUDIES OF SURVIVORSHIP OF UNDERSIZED BYCATCH RED GROUPER	1&2	01/01/92	06/30/93		$89,027.00			$89,027.00	76	5	NR
91NF06.A.03	MOTE MARINE LAB	EDWARDS, RANDY DR.	DET. OF HOOK/RELEASE MORTALITY OF KING & SMACKEREL, AMERJACK,RED GROUP	1/2	10/01/91	09/30/92	09/30/93	$64,659.00	$41,412.00		$106,071.00	73	4	NR
91NF06.B.01	LSU	AUSBELL, SANDRA ET.AL.	DEV & PUBL OF PRACTICAL COLOR IDENT GUIDE TO REEF FISH AND SALTW FISH	1/1	10/01/91	09/30/92		$66,706.00			$66,706.00	59	6	NR
91NF06.C.01	LSU	ROBERTS, KENNETH DR.	FINFISH PROCESSR SECTOR CHANGES IN GOM FISHERIES UNDER MNGMT/REGULATIO	1/1	10/01/91	09/30/92		$51,404.00			$51,404.00	83	7	NR
91NF06.E.01	LSU	DALTY, RONALD DR.	INFLUENCE OF MICROHABITAT SEL ON GROWTH & PREDATION OF ESTUARINE FISH	1/2	10/01/91	09/30/92	09/30/93	$73,648.00	$65,907.00		$139,554.00	83	4	R-
91NF06.E.02	GCRL	STEEN, JOHN ET.AL	ROLE & EFFECT OF EDDIES/FRONTS ON LARVAL RECRUITMT OF SEL COM SPECIES	1/3	10/01/91	09/30/92	09/30/94	$32,821.00	$141,142.00	$144,374.00	$418,337.00	70	5	NR
91NF06.E.03	SMITHSONIAN INST.	HAMMING, RAYMOND DR.	DEEP-SEA COM CRABS, FAMILY GERYONIDAE: AN UNTAPPED RESOURCE	1/3	07/01/91	06/30/92	06/30/94	$12,478.00	$8,052.00	$16,510.00	$37,040.00	85	7	NR

PROJECT #	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT NAME	YEAR/TOTAL YEARS	START DATE	END DATE	MULTI-YEAR END DATE	$ REQUESTED YEAR 1	$ REQUESTED YEAR 2	$ REQUESTED YEAR 3	TOTAL $ REQUESTED	AVERAGE SCORE	# OF REVIEWS	BWS RECOMMENDATION
91WM46.E.04	DUNN PATTERSON	PATTERSON, DUNN	UPPER GALVESTON BAY ESTUARY CRAB STUDY	1/3	08/01/91	07/30/92	07/30/94	849,643.00	849,643.00	849,643.00	$548,734.00	15	5	NR
						TOTALS:		4438016.38	2,652,815.50	1,420,484.34	8,576,771.22			

Attachment 1

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, FL 33702

June 11, 1991 F/SER4:DE/ls

MEMORANDUM FOR: MARFIN Board

FROM: F/SER4 - Donald R. Ekberg

SUBJECT: FY91 MARFIN Proposal Selections

The final NMFS selections for FY91 MARFIN are attached. Andy's changes were approved by Bill Fox. The changes to the Board's recommendations are as follows:

1. The two Gulf Shrimp Research and Development Foundation proposals were combined.

2. The Texas Parks and Wildlife (3.D.03) and Gulf Coast Research Lab. (5.A.02) proposals were eliminated.

3. $55,000 was removed to support the Gulf and South Atlantic Development Foundation.

4. The Alabama Department of Conservation and Natural Resources proposal (3.F.02) was added from the conditional list.

5. The Mote Marine Lab. proposal (5.B.02) was increased to $103,000.

Attachment

cc:
OA321 - J. West
F/SEC - B. Brown
F/SER - A. Kemmerer
F/BP - N. Bane

1991 NMFS SOUTHEAST REGION FINANCIAL ASSISTANCE PROJECTS
STAGE II - PANEL MEETING

DATE:

PAGE:

PROJECT#	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT TITLE	YEAR/TOTAL YEARS	START DATE	AVERAGE SCORE	# OF REVIEWS	$ REQUESTED/ AND $ RECOMMENDED YEAR 1	$ REQUESTED/ AND $ RECOMMENDED YEAR 2	$ REQUESTED/ AND $ RECOMMENDED YEAR 3	TOTAL $ REQUESTED/AND TOTAL $ RECOMMENDED	REC
91NF01.A.1.04	LSU	DALTZ, DONALD DR.	PATTERNS IN DIST & ABUNDANCE OF FISHES AND MACROINVERTEBRATES IN LA	1/1	10/01/91	84	6	$32,162.00			$32,162.00	R
								$32,162.00			$32,162.00	
91NF01.A.4.01	GULF SHRIMP RES & DEV FOUND II	GLOOR, LUCY	FINFISH EXCLUDING BEAR IN SHRIMP TRAWLS IN VOOM STUDY	1/1	10/01/91	83	7	$77,385.00			$77,385.00	R
								$95,000.00			$95,000.00	
91NF01.A.4.03	LSU	ROGERS, DARTON	EVAL. OF SHRIMP TRAWLS DESIGNED TO REDUCE BYCATCH IN INSHORE WTRS LA	1/2	11/01/91	73	6	$31,917.00	$32,150.00		$64,067.00	R
								$46,917.00	$47,150.00		$94,067.00	
91NF01.B.01	LSU	KEITHLY, WALTER DR.	SHRIMP CLOSURES & THEIR IMPACT ON GULF REGION PROCESSG & WHOLESALEG	1/2	10/01/91	93	7	$64,838.00	$41,360.00		$106,198.00	NR
								$64,838.00	$41,360.00		$106,198.00	
91NF02.A.3.01	UNIV OF FL	THUNBERG, ERIC DR.	ECON ANALYSIS OF US DEMAND FOR SWORDFISH & EFFECT REDUCTION MEASURES	1/1	06/01/91	82	5	$43,287.00	$24,649.00		$67,936.00	R-
								$43,287.00	$0.00		$67,936.00	
91NF02.B.1.02	MOTE MARINE LAB	HUETER, ROBERT DR.	BYCATCH & CATCH-REL MORTALITY OF SHARKS IN GULF COAST NURSERY OFF FL	1/2	07/01/91	82	6	$32,143.00	$30,366.00		$62,509.00	R
								$32,143.00	$30,366.00		$62,509.00	
91NF02.B.1.03	UNIV OF N FL	DORTENE, STEPHEN DR.	IDENT. OF STOCK STRUCTURE & RECRUITMT PATTERNS FOR RED SNAPPER IN GOM	1/3	08/01/91	82	5	$89,918.00	$94,415.00	$95,827.00	$280,160.00	R
								$89,918.00	$94,415.00	$95,827.00	$280,160.00	
91NF03.C.01	CONTINENTAL SHELF ASSOC, INC	THOMPSON, JOHN	COMPILATION OF EXISTG DATA ON LOCATION & AREAL EXTENT OF REEF FISH HABITAT ON MS/AL/FL CONTINENTAL SHELF - EGOM	6MO	06/15/91	91	6	$20,924.00			$20,924.00	NR
								$20,924.00			$20,924.00	
91NF03.F.02	AL DEPT CONS & NATURAL RES	TATUM, WALTER ET.AL	ANALYSIS OF RED SNAPPER CATCHES FROM AL CHARTER BOAT FLEET	1/2	10/01/91	72	8	$30,000.00	$30,000.00	$30,000.00	$90,000.00	R-
								$30,000.00	$30,000.00		$30,000.00	
91NF03.F.03	GCRL	LYCZKOWSKI-SHULTZ, J. DR.	SPAWNG & EARLY LIFE HISTORY OF SNAPPERS IN NORTHCENTRAL GOM	1/1	10/01/91	97	6	$96,140.00	$106,229.00	$80,622.00	$282,991.00	R
								$96,140.00	$0.00	$0.00	$96,140.00	

PROJECT#	APPLICANT	PRINCIPAL INVESTIGATOR	PROJECT TITLE	YEAR/TOTAL YEARS	START DATE	AVERAGE SCORE	# OF REVIEWS	$ REQUESTED/ AND $ RECOMMENDED YEAR 1	$ REQUESTED/ AND $ RECOMMENDED YEAR 2	$ REQUESTED/ AND $ RECOMMENDED YEAR 3	TOTAL $ REQUESTED/AND TOTAL $ RECOMMENDED	NMFS RECOMMENDATION
91NF03.F.07	LSU	WILSON, CHARLES DR.	LIFE HISTORY GAPS IN REDSNAPPER, BUDGFISH, RED DRUM IN NGOM	1/2	10/01/91	76	3	$55,609.00	$55,609.00		$111,218.00	A
								$40,000.00	$40,000.00		$80,000.00	
91NF03.A.01	UNIV OF MIAMI	EHRHARDT, NELSON DR.	BIOLOGICAL DATA FROM COM LANDINGS OF SPANISH MACKEREL IN SO FL FISHERY	1/3	12/01/91	82	6	$68,565.00	$58,115.00	$61,365.00	$188,025.00	NA
								$68,565.00	$58,115.00	$61,365.00	$188,025.00	
91NF03.B.01	TX A&M RES FOUND	GOLD, JOHN DR.	POP GENETIC STUDIES OF KING MACKEREL IN GOM	1/2	01/01/92	79	5	$59,703.00	$62,837.00		$122,540.00	A-
								$59,703.00	$62,837.00		$122,540.00	
91NF03.B.02	MOTE MARINE LAB	BURNS, KAREN	KING & SPANISH MACKEREL, RED GROUPER & RED SNAPPER STOCK ASSMT GOM	1/1	10/01/91	74	6	$231,036.00			$231,036.00	B
								$103,000.00			$103,000.00	
91NF06.A.01	USF	WILSON, DAVMOND DR.	IN-SITU & LAB STUDIES OF SURVIVORSHIP OF BYCATCH IN RED GROUPER FISHERY	1RNB	01/01/92	86	6	$73,157.00			$71,157.00	A-
								$71,157.00			$71,157.00	
91NF06.C.01	LSU	ADDKATS, KENNETH DR.	FINFISH PROCESSO SECTOR CHANGES IN GOM FISHERIES UNDER MGMT/REGULATIO	1/1	10/01/91	83	7	$51,484.00			$51,484.00	NA
								$51,484.00			$51,484.00	
					TOTAL $ REQUESTED:			$1,056,248.00	$1,056,248.00	$267,814.00	$1,859,792.00	
					TOTAL $ RECOMMENDED:			$945,218.00	$484,243.00	$137,192.00	$1,476,653.00	

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DRAFT

MARFIN
CONFERENCE CALL
MINUTES
Wednesday, June 19, 1991

Members Present
Dr. James C. Cato, FLSGP, Gainesville, FL
Mr. Larry B. Simpson, GSMFC, Ocean Springs, MS
Mr. Scott Nichols, NMFS, Pascagoula, MS
Mr. Wayne Swingle, GMFMC, Tampa, FL
Ms. Judy Jamison, GSAFDF, Tampa, FL
Mr. William S. "Corky" Perret, LDWF, Baton Rouge, LA

Board Members not Present
Dr. Robert L. Shipp, USA, Mobile, AL
Mr. Robert P. Jones, SFA, Tallahassee

Staff
Dr. Donald R. Ekberg, NMFS, St. Petersburg, FL
Ms. V. K. "Ginny" Herring, GSMFC, Ocean Springs, MS

Others
Dr. Andrew Kemmerer, NMFS, St. Petersburg, FL

The conference call was called to order at 8:05 a.m.

L. Simpson noted the reason for the conference call is concern with the Regional Director's changes to the Board's recommendations. The call's purpose is to provide a discussion among the Board and the Regional Director regarding those changes. L. Simpson felt the changes to Board recommendations should have been discussed in at least a conference call prior to the final decision being made to change the Boards recommendations.

Chairman Shipp was en route from New York and was unable to chair the meeting so Vice Chairman Cato handled the meeting. J. Cato felt the changes were substantial and protocol was not utilized. He questioned the 55K to be deducted from MARFIN funds to fund the Gulf and South Atlantic Fisheries Development Foundation when no proposal and no description of how the funds were to be used was given. He was concerned about negative comments to the Board because of this action. A. Kemmerer stated that the 55K for the Foundation was a mandate from the Inspector General's and NOAA Grant's office.

L. Simpson asked if the mandate was in writing so the Board would be covered. A. Kemmerer noted it may exist but the Board is covered. J. Cato noted there still may be criticism if we don't have a written proposal.

A. Kemmerer noted this funding is for overhead and is not a proposal. He commented again that this was not a local decision and it was not the Foundation's request or fault.

J. Jamison clarified that of the nine proposals from SK and MARFIN that were approved for funding, five were actually allowed by the Inspector General. There were three from MARFIN and two from SK. Of the four not funded, two were awarded directly to the contractors and two were not funded at all. When the Foundation received the cooperative agreement, they included twelve months of administration with six months of funding. The foundation could not provide those services for the other six months without funding. She was directed to submit a supplemental proposal which identified 31K needed to administer the MARFIN Projects for the additional six months.

C. Perret questioned the time frame when all this had occurred. J. Jamison said she received the cooperative agreements in February or March.

D. Ekberg noted he tried to introduce this issue at the Board Meeting in St. Petersburg but no one wanted to discuss it.

L. Simpson commented that no paperwork was before the Board and it wasn't appropriate then or now.

A. Kemmerer repeated that he had no option. This was done by the Inspector General and NOAA Grants. The issue is not settled and he is still trying to keep this from being deducted or reduce the deduction.

W. Swingle commented the Council does not support the Mote project increase as noted in A. Kemmerer's memo of June 18, 1991.

A. Kemmerer thought they supported mackerel landing data.

W. Swingle said that was a priority but most of the money in Mote's proposal was for length/frequency data. He felt that landings data could be obtained by the Mexican Fisheries attache.

Concerning the comments in A. Kemmerer's memo about low scores, the Board questioned the expertise of the NOAA Grants Office to interpret these averages. The Board felt that if the scores from the peer reviews are made available to NOAA Grants perhaps the Board's scores could also be used to help them with the award process.

C. Perrett noted some of the National Marine Fisheries Service proposals in the past were worse than state agency proposals. The National Marine Fisheries Service proposals are not peer reviewed and scored and they are funded.

The consensus was that the Board be informed before final decisions on all modifications to the Board's recommendations are made.

L. Simpson wants to go on record as objecting to the changes and how these changes were done. He agreed that occasional and minor changes from the Board's guidance are necessary but in this case they were substantial. He specifically objected to the elimination of the Texas' and Gulf Coast Research Laboratory's proposals, the addition of 28K to Mote's proposal, and the deduction from MARFIN funds for the foundation.

L. Simpson briefed the Board on plans for the Principal Investigator's conference and Board Meeting in San Antonio on September 10-12, 1991.

A. Kemmerer stated the Board serves an important function. He felt the Board's review and advice was critical. He tries to use this advice to the maximum extent he can. The majority of the Board's recommended projects were funded and he would respond more to the PMB in the future. He stated the PMB must realize he does not have the final word.

There being no further business to discuss, the conference call adjourned at 8:58 a.m.

MARFIN PROGRAM MANAGEMENT BOARD (PMB)
MINUTES
September 12, 1991
San Antonio, Texas

DRAFT

The MARFIN PMB meeting was held following the 4th Annual MARFIN Conference at the Crockett Hotel in San Antonio, Texas. Bob Shipp, Chairman, called the meeting to order at 8:05 am. The following were in attendance:

Members
Jim Cato, Sea Grant, Gainesville, FL
Lucy Gibbs, Commercial Industry (designee for Bob Jones), Austin, TX
Peter Hoar, G&SAFDFI, Tampa, FL
Scott Nichols, NMFS, Pascagoula, MS
William S. "Corky" Perrett, Gulf States, Baton Rouge, LA
Bob Shipp, Recreational Industry, Mobile, AL
Larry B. Simpson, GSMFC, Ocean Springs, MS
Wayne Swingle, GMFMC, Tampa, FL
Jean B. West, NOAA Grants Mgt. Division, Silver Spring, MD (ex-officio)

Staff
Don Ekberg, NMFS, St. Petersburg, FL
Lucia B. Hourihan, GSMFC, Ocean Springs, MS
Cynthia D. Bosworth, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was amended to include approval of minutes and approved as amended.

Adoption of Minutes

The minutes of the meeting held May 29-30, 1991 in St. Petersburg, Florida, were adopted as presented. The minutes of the conference call held June 19, 1991 were discussed. J. West noted that she had missed the conference call due to a previously scheduled workshop and that the reporting of a NOAA Grants Office or OIG mandate to use MARFIN monies to fund $55K to the Foundation as discussed on pages 1-2 needed clarification. West said that the final decision had been up to NMFS. NMFS had to come up with the additional funds to administer the five MARFIN and S/K proposals awarded to the Foundation from MARFIN or S/K. The conference call minutes were approved with clarification to be included in the minutes of this meeting.

Status of FY91 Financial Assistance Awards

D. Ekberg distributed a MARFIN Status Report (attachment 1) as of 9/3/91.

considering it for approval.

C. Perret moved that Ekberg draft a letter for the Chairman's signature to be sent to R. Schmied, PI on 92NMFS10, expressing the PMB's need to be advised of and asked for comments on any change of project direction such as had happened in FY91. The motion carried.

The PMB discussed the quality of NMFS proposals as compared to competitive proposals. NMFS proposals are lacking milestone charts, vitaes on PIs and explanation of budgets.

New Business

Nichols stated that he had copies of the latest annual reports on Mississippi Laboratories' MARFIN projects with him and available for the PMB.

Shipp initiated discussion on the need to address and revamp the review process. Shipp stated that he would like to be personally involved in the NMFS review meeting.

Ekberg suggested the PMB could provide a list of reviewers' names by category. West stated that new guidelines on reviews will be coming out shortly from the NOAA Grants Office.

It was decided that this issue will require more time for discussion. Members are to send any suggestions to Shipp who will work up a draft before the next meeting. A PMB meeting will be held prior to the Foundation meeting in December at the Holiday Inn Airport North in Atlanta, Georgia. Details of the meeting will be forthcoming.

There being no further business the meeting adjourned at 12:00 noon.

Grant Number	Years/Total Years	$ Amount	Applicant's Name	Project's Name	Principal Investigator	Status	Start Date
01?NA90AAHMF745	2/2	$99,650.00	SE FISHERIES ASSOC INC	CONF ON REDUCTION OF BYCATCH SHRIMP TRAWLG OPERATIONS & ALTER HARVTG	JONES, ROBERT	AWARDED 08/01/91	11/01/91
01?NA90AAHMF748	2/2	$87,539.00	CARIBBEAN MARINE RES CENTER (CMRC)	SPAWNG BIOLOGY OF SHALLOW-WATER GOM GROUPERS	COLIN, PATRICK DR. ET.AL	AWARDED 07/29/91	10/01/91
01?NA90AAHMF761	2/2	$59,761.00	MARINE ENVIRONMENTAL SCIENCE CONSORTIUM	RECRUITMT & HABITAT UTIL BY BLUE CRAB: IMPORTANCE OF JUV NURSERY HABITAT	HECK, KENNETH DR., ET.AL.	AWARDED 07/29/91	10/01/91
01?NA90AAHMF762	2/2	$47,655.00	LSU	MORTALITY RATES & MOVEMENT OF HOOK&LINE CAUGHT & RELEASED RED SNAPPER	RENDER, JEFFREY DR. ET.AL.	AWARDED 07/30/91	10/01/91
91?NA90AAHMF724	3/3	$84,260.00	LSU	VAR OF YR-CLASS STRENGTH & ANNUAL REPROD OUTPUT OF RED&BLACK DRUM NGOM	WILSON, CHARLES DR., ET.AL.	AWARDED 07/11/91	10/01/91
91?NA90AAHMF725	3/3	$87,700.00	LA DEPT OF W&F	BIOL & CATCH/EFFORT SAMPLG FROM TUNA & SHARK FISHERIES IN NGOM	SHEPARD, JOSEPH A.	AWARDED 07/31/91	10/01/91
91?NA90AAHMF727	3/3	$79,600.00	LSU	UTILIZATION OF FISHERIES-INDEPDENT DATA: FUTURE MANGMT IMPLICATIONS	SHAW, RICHARD DR., ET.AL.	AWARDED 07/11/91	02/01/92
91?NA90AAHMF728	3/3	$38,730.00	LSU	MACKEREL & REEF FISH BIOPROFILE & CATCH/EFFORT DATA COL FROM NGOM	RUSSELL, SANDRA	AWARDED 07/11/91	10/01/91
91?NA90AAHMF734	3/3	$4,000.00	FL DNR	AGE VALIDATION OF ADULT BLACK DRUM IN FL	MURPHY, MICHAEL, ET.AL.	AWARDED 07/13/91	02/01/92
NA17FF0263-01	1/1	$32,162.00	LSU	PATTERNS IN DIST & ABUNDANCE OF FISHES AND MACROINVERTEBRATES IN LA	BALTZ, DONALD DR.	OA321 TO FARB 08/21/91	10/01/91
NA17FF0374-01	1/1	$95,000.00	GULF SHRIMP RES & DEV FOUND	FINFISH EXCLUDING GEAR IN SHRIMP TRAWLS IN NGOM STUDY-BYCATCH	GIBBS, LUCY	OA321 TO FARB 08/19/91	10/01/91
NA17FF0375-01	1/2	$46,917.00	LSU	EVAL. OF SHRIMP TRAWLS DESIGNED TO REDUCE BYCATCH IN INSHORE WTRS LA	ROGERS, BARTON	OA321 TO FARB 08/21/91	11/01/91
NA17FF0376-01	1/2	$64,838.00	LSU	SHRIMP CLOSURES & THEIR IMPACT ON GULF REGION PROCESSG & WHOLESALEG	KEITHLY, WALTER DR.	OA321 TO FARB 08/21/91	10/01/91
NA17FF0377-01	1/1	$43,287.00	UNIV OF FL	ECON ANALYSIS OF US DEMAND FOR SWORDFISH & EFFECT REDUCTION MEASURES	THUNBERG, ERIC DR.	OA321 TO FARB 08/19/91	10/01/91
NA17FF0378-01	1/2	$32,143.00	MOTE MARINE LAB	BYCATCH & CATCH-REL MORTALITY OF SHARKS IN GULF COAST NURSERY OFF FL	HUETER, ROBERT DR.	AWARDED 08/30/91	10/01/91
NA17FF0379-01	1/3	$89,918.00	UNIV OF W FL	IDENT. OF STOCK STRUCTURE & RECRUITMT PATTERNS FOR RED SNAPPER IN GOM	BORTONE, STEPHEN DR.	AWARDED 08/12/91	10/01/91
NA17FF0380-01	6MO	$20,924.00	CONTINENTAL SHELF ASSOC, INC	COMPILATION OF EXISTG DATA ON LOCATION & AREAL EXTENT OF REEF FISH HABITAT ON MS/AL/FL CONTINENTAL SHELF - EGOM	THOMPSON, JOHN	AWARDED 08/20/91	10/01/91
NA17FF0381-01	1/2	$30,000.00	AL DEPT CONS & NAT RES	ANALYSIS OF RED SNAPPER CATCHES FROM AL CHARTER BOAT FLEET	TATUM, WALTER ET.AL	AWARDED 08/19/91	10/01/91
NA17FF0382-01	1/1	$96,140.00	GCRL	SPAWNG & EARLY LIFE HISTORY OF SNAPPERS IN NORTHCENTRAL GOM	LYCZKOWSKI-SHULTZ, J. DR.	AWARDED 09/03/91	10/01/91
NA17FF0383-01	1/2	$40,000.00	LSU	LIFE HISTORY GAPS IN REDSNAPPER, SWORDFISH, RED DRUM IN NGOM	WILSON, CHARLES DR.	OA321 TO FARB 08/21/91	10/01/91
NA17FF0384-01	1/3	$68,545.00	UNIV OF MIAMI	BIOLOGICAL DATA FROM COM LANDINGS OF SPANISH MACKEREL IN SW FL FISHERY	EHRHARDT, NELSON DR.	AWARDED 08/14/91	12/01/91
NA17FF0385-01	1/2	$59,703.00	TX A&M RES FOUND	POP GENETIC STUDIES OF KING MACKEREL IN GOM	GOLD, JOHN DR.	AWARDED 08/16/91	01/01/92
NA17FF0386-01	1/1	$103,000.00	MOTE MARINE LAB	KING & SPANISH MACKEREL, RED GROUPER & RED SNAPPER STOCK ASSMT SGOM	BURNS, KAREN	AWARDED 08/24/91	10/01/91
NA17FF0387-01	1/1	$71,157.00	USF	IN-SITU & LAB STUDIES OF SURVIVORSHIP OF BYCATCH IN RED GROUPER FISHERY	WILSON, RAYMOND DR.	AWARDED 08/14/91	01/01/92
NA17FF0388-01	1/1	$51,484.00	LSU	FINFISH PROCESSG SECTOR CHANGES IN GOM FISHERIES UNDER MNGMT/REGULATIO	ROBERTS, KENNETH DR.	OA321 TO FARB 08/21/91	10/01/91
	Total:	1,530,153.00					

STATUS OF MARFIN APPLICATIONS
1991 NEW APPLICATIONS
As of September 9, 1991

GRANT NUMBER	STATE	RECIPIENT	AMOUNT	AWARD DATE
NA17FF0263-01	LA	LOUISIANA STATE UNIVERSITY	$ 32,162	9/10/91
NA17FF0374-01	TX	GULF SHRIMP RES. & DEV. FOUNDATION	95,000	9/12/91
NA17FF0375-01	LA	LOUISIANA STATE UNIVERSITY	46,917	9/11/91
NA17FF0376-01	LA	LOUISIANA STATE UNIVERSITY	64,838	9/11/91
NA17FF0377-01	FL	UNIVERSITY OF FLORIDA	43,287	9/07/91
NA17FF0378-01	FL	MOTE MARINE LAB	32,143	9/03/91
NA17FF0379-01	FL	UNIVERSITY OF WEST FLORIDA	89,918	8/12/91
NA17FF0380-01	FL	CONTINENTAL SHELF ASSOCIATION	20,924	8/20/91
NA17FF0381-01	AL	ALABAMA DEPT. OF CONS. & NAT. RES.	30,000	9/12/91
NA17FF0382-01	MS	GULF COAST RESEARCH LAB	96,140	9/05/91
NA17FF0383-01	LA	LOUISIANA STATE UNIVERSITY	40,000	9/12/91
NA17FF0384-01	FL	UNIVERSITY OF MIAMI	68,545	8/14/91
NA17FF0385-01	TX	TEXAS A & M RESEARCH FOUNDATION	59,703	8/16/91
NA17FF0386-01	FL	MOTE MARINE LAB	103,000	8/24/91
NA17FF0387-01	FL	UNIVERSITY OF SOUTH FLORIDA	71,157	8/14/91
NA17FF0388-01	LA	LOUISIANA STATE UNIVERSITY	51,484	

09/05/91

NATIONAL MARINE FISHERIES SERVICE
SOUTHEAST REGION
FY92 MARFIN ALLOCATION

INITIAL ALLOCATION:		2966.0
(CONGRESSIONAL REDUCTION - $14.0K)		
(DATA MANAGEMENT INITIATIVE ASSESSMENT - $20.0K)		
NOAA'S FY92 ASSESSMENT		-48.5
IN-HOUSE PROJECTS		
SUBTOTAL		0.0
COOPERATIVE AGREEMENTS: (COMMITMENTS)		
MULTI-YEAR AWARDS	404.2	
SUBTOTAL		-404.2
CONTRACT(S): (THIRD YEAR COMMITMENT)		
GSMFC (ADMIN.)	46.2	
TRAVEL	30.0	
SUBTOTAL		-76.2
TOTAL		**2437.1**

II. Funding Priorities.

A. Proposals for FY 1992 should exhibit familiarity with related work that is completed or ongoing. Where appropriate, proposals should be multidisciplinary. Coordinated efforts involving multiple institutions or persons are encouraged. While the areas for priority consideration are listed below, proposals in other areas will be considered on a funds available basis.

1. Shrimp.

a. Shrimp Trawler Bycatch (Very high priority).

(1) These studies should include collection and analyses of new data using a multi-species approach with emphasis on species under Federal or state management.

(2) Quantification and further analysis of existing biological data obtained from observers, fishery independent surveys and other sources.

(3) Data collection and analyses related to the economic and social consequences of bycatch and various bycatch alternatives in the shrimp fisheries, including impact of management options. Capital/labor mobility and effort changes related to costs, management and/or increased fish abundance should be considered. Sociological studies should describe the demographic, social, and cultural characteristics of the fishermen as they may affect

PROJ#	APPNAME	PROJNAME	PI	STARTDAT	ENDDATE	$
92NMFS01	SEFC	REEF FISH SPAWNING PERIODICITY AND FECUNDITY ESTIMATES	JOHNSON, ALLYN DR.	10/01/91	09/30/92	$106,000.00
92NMFS02	SEFC	AGE AND GROWTH OF GAG, RED GROUPER, AND VERMILION SNAPPER	JOHNSON, ALLYN DR.	10/01/91	09/30/92	$50,000.00
92NMFS03	SEFC	OPERATIONAL RESEARCH: IMPROVE METHODS OF AGING CATCH FOR VPAS	GRIMES, CHURCHILL DR.	10/01/91	09/30/92	$25,000.00
92NMFS04	SEFC	MIGRATORY GROUP COMPOSITION OF KING MACKEREL IN THE FL KEYS	THOMPSON, NANCY	10/01/91	09/30/92	$60,000.00
92NMFS05	SEFC	FISHERY INDEPENDENT TECHNIQUES FOR REEFFISH	NICHOLS, SCOTT	10/01/91	09/30/92	$140,296.00
92NMFS06	SEFC	SHRIMP TRAWL BYCATCH REDUCTION	SEIDEL, WILBER	10/01/91	09/30/92	$275,000.00
92NMFS07	SEFC	TED TECHNOLOGY TRANSFER	SEIDEL, WILBER	10/01/91	09/30/92	$65,000.00
92NMFS08	SEFC	SMALL PELAGICS IN THE GULF OF MEXICO	SEIDEL, WILBER	10/01/91	09/30/92	$410,000.00
92NMFS09	SERO	MARFIN PROGRAM MANAGEMENT	EKBERG, DONALD	10/01/91	09/30/92	$75,000.00
92NMFS10	SERO	EDUCATIONAL TOOLS FOR MARINE REC FISHERMEN TO PROMOTE WISE USE AND CONSERVATION OF GULF FISHERY RESOURCES	SCHMIED, RONALD	10/01/91	09/30/92	$11,200.00
92NMFS11	SERO	ECON ANALYSIS OF FINFISH BYCATCH IN GOM SHRIMP FISHERY	JOHN WARD	10/01/91	09/30/92	$103,000.00

Note: Total NMFS to be reduced to $1,279.7K (SERO 189.2 and SFC 1090.5) A reduction of $25.5K from last year. The cooperative agreements will receive $23,0K less. These 2 reductions will make up the $48.5K NOAA assessment.

Marine Fisheries Initiative

(MARFIN)
GULF of MEXICO PHASE

Fourth Annual MARFIN Conference

September 10-11, 1991
Crockett Hotel
San Antonio, Texas

MARFIN PROGRAM MANAGEMENT BOARD

James C. Cato
Judy Jamison
Robert P. Jones
William S. Perret
Scott Nichols
Robert L. Shipp
Larry B. Simpson
Wayne Swingle

Jean Martin-West, *ex-officio*

MARFIN PROGRAM MANAGEMENT BOARD ALTERNATES

Robert C. Ditton
Lucy Gibbs
Peter Hoar
Terry Leary
John Ray Nelson
Walter M Tatum
Jack Van Lopik

Conference Coordinators

Donald R. Ekberg
MARFIN Program Manager
National Marine Fisheries Service

Virginia K. Herring
Executive Assistant
Gulf States Marine Fisheries Commission

On-Site Contacts

Cynthia B. Dickens
Lucia B. Hourihan
Gulf States Marine Fisheries Commission

Fourth Annual MARFIN Conference

September 10 - 11, 1991

Tuesday, September 10, 1991

1:00 pm **WELCOMING REMARKS**

Robert L. Shipp, MARFIN Board Chairman
Director, Coastal Research and Development Institute
University of South Alabama

1:25 pm **CONFERENCE OBJECTIVES**

Donald R. Ekberg, MARFIN Program Manager
Southeast Regional Office, National Marine Fisheries Service

SESSION I - SHRIMP, TURTLES AND TEDS

1:35 pm Enhancing the Benefits Derived from Shrimp in the Gulf of Mexico through Optimizing Shrimp Management in Louisiana
-Jerry Clark, Louisiana Department of Wildlife and Fisheries

2:00 pm Feasibility Study: Finfish Excluding Gear in Shrimp Trawls in the Western Gulf of Mexico
-Lucy L. Gibbs, Gulf Shrimp Research and Development Foundation, Inc.

2:25 pm Evaluation of the Impacts of Bycatch Excluder Devices (BEDs) on Finfish and Shrimp Catch Rates in the Gulf of Mexico
-Gregg R. Gitschlag, National Marine Fisheries Service

2:50 pm Gear Development for Bycatch Reduction
-Wilber Seidel, National Marine Fisheries Service

3:15 pm TED Technology Transfer
-Wilber Seidel, National Marine Fisheries Service

SESSION II - COASTAL HERRINGS AND GENERAL

3:40 pm — Educational Tools for Marine Recreational Fishermen to Promote Wise Use and Conservation of Gulf Fishery Resources
-Ronald Schmied, National Marine Fisheries Service

4:05 pm — Small Pelagics in the Gulf of Mexico Resource Surveys
-Chris Gledhill, National Marine Fisheries Service

Wednesday, September 11, 1991

SESSION III - ESTUARINE FISH, MENHADEN AND OYSTERS

8:00 am — Evaluation of Quahog Abundance and Growth in Inshore Alabama and Northwestern Florida Waters: An Assessment of Habitat Favorability for Clam Culture
-Kenneth Heck, Marine Environmental Sciences Consortium

8:25 am — The Relative Value of Vegetated and Unvegetated Habitats to Juvenile Spotted Seatrout and Red Drum: Comparisons of Nursery Habitats and Field Growth Rate Measurement Techniques
-David A. Nadeau, Marine Environmental Sciences Consortium

8:50 am — Estimation of Spawning Stock Biomass and Exploitation/ Escapement Rates for Population Assessment of Black Mullet
-Behzad Mahmoudi, Florida Department of Natural Resources

9:15 am — Dynamics of Estuarine and Offshore Red Drum Stocks, as Determined by Otolith Elemental Analysis
-Lee A. Fuiman, The University of Texas at Austin

9:40 am — Age Structure and Reproductive Potential of the Northern Gulf of Mexico Offshore Population of Red Drum not Vulnerable to Purse Seine Capture
-Charles A. Wilson, Louisiana State University

10:05 am — Population Genetic Studies of Red Drum in the Gulf of Mexico
-John R. Gold, Texas A & M University

SESSION IV - COASTAL PELAGICS

10:30 am — Distribution and Ecology of Cobia and Bluefish in the Northern Gulf of Mexico
-Jim Ditty, Louisiana State University

10:55 am — King and Spanish Mackerel Migration and Stock Assessment Study in the Southern Gulf of Mexico
-Karen Burns, Mote Marine Laboratory

11:20 - 1:00 pm — **LUNCH BREAK**

SESSION V - REEF FISH AND OCEAN PELAGICS

1:00 pm — Early Life History of Snappers in Coastal and Shelf Waters of the Northcentral Gulf of Mexico, Late Summer/ Fall Months 1983-1989
-Joanne Lyczkowski-Shultz, Gulf Coast Research Laboratory

1:25 pm — Investigation of Life History Parameters of Species of Secondarily Targeted Reef Fish and Dolphin in the Northern Gulf of Mexico
-Robert L. Shipp, University of South Alabama

1:50 pm — Sociological and Economic Impacts of Recreational Reef Fish Fishermen in Texas Coastal Waters
-Tom Wagner, Texas Parks and Wildlife Department

2:15 pm — Genetic Studies to Determine Stock Structure of Reef Fishes in the Gulf of Mexico
-John R. Gold, Texas A & M University

2:40 pm — A Social and Economic Characterization of Gulf of Mexico Recreational Shark Fisheries
-Robert B. Ditton, Texas A & M University

3:05 pm — Reproductive Biology of Reef Fish
-Eugene Nakamura, National Marine Fisheries Service

3:30 pm Age, Growth and Reproductive Biology of Greater Amberjack and Cobia from Coastal Louisiana Waters
-Bruce Thompson, Louisiana State University

3:55 pm Species Identification of Amberjacks: Impacts on Reef Fish Management Plan Implementation and Management of Stocks in the Gulf of Mexico
-Steve Szedlmayer, University of South Alabama

4:20 pm **SUMMARY AND CONCLUSION**