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1990 SEAMAP GULF OF MEXICO



GULF STATES MARINE FISHERIES COMMISSION

AN COLOR

THIS DIRECTORY WAS SUPPORTED IN PART BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL MARINE FISHERIES SERVICE; STATE/ FEDERAL PROJECT NUMBER NA90AA-H-SM211.

INTRODUCTION

The Southeast Area Monitoring and Assessment Program (SEAMAP) is a cooperative State/Federal/university program for the collection, management and dissemination of fishery-independent data (data collected without direct reliance on any commercial or recreational fishery) and information in the southeast region. Presently operational are the SEAMAP-Culf, SEAMAP-South Atlantic and SEAMAP-Caribbean (Puerto Rico and the U.S. Virgin Islands).

This Marine Directory, incorporated into the Fortieth Annual Report of the Gulf States Marine Fisheries Commission, updates information contained in the 1983, 1984, 1985, 1986, 1987, 1988 and 1989 SEAMAP Marine Directories, and describes survey activities (ongoing programs, vessel schedules, etc.) throughout the Gulf of Mexico. The SEAMAP Program is managed through the office of the Gulf States Marine Fisheries Commission.

Agencies responding to the 1990 Directory were contacted in April 1990 and requested to provide current information or projected changes in their survey programs. Tables 1, 2 and 3 are condensed summaries of information submitted by responding agencies and organizations, indicated as either Federal, State or university activities.

Representatives of agencies contributing information to past directories are listed alphabetically in Appendix A by organizational category. The SEAMAP Subcommittee would like to express its appreciation to all organizations responding to the request for organizations conducting fishery-independent marine estuarine information. 0ther or surveys are encouraged to contact the SEAMAP Program for inclusion in future listings. with copies supplied to The Directory will be updated each year, participating organizations.

Appendix B lists published documents which have been produced by the SEAMAP Program and are available through the Gulf States Marine Fisheries Commission. Questions and requests for detailed information concerning the Directory or the SEAMAP Program should be referred to:

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TABLE 1. SUMMARY OF INFORMATION PROVIDED BY FEDERAL AGENCIES

		TYPES OF FIS	SHERY- Sampling		ANNUAL EFFORT E FISHERY-INDEPENE BY ACTIVIT	DEVOTED TO DENT SAMPLING IV IN:	TYPES OF	CEAR		
TARGET SPECIES	LIFE STACES SAMPLED	AREA SAMPLED	GEOGRAPHIC AREAS OF INPORTANCE	TYPES OF Platfor ms	NUMBER OF DAYS	NUMBER OF Samples	FISHING, TRAKLING	PLANKTON	SAMPLE STRATEGY FOR DATA COLLECTION	ANT CI DIF FISHE ACT NE
Groundfish (shrimp, spot, croaker, cat- fish, trout)	Subadults- adults	Culf of Mexico South Atlantic	Territorial; open ocean (EEZ)	172' OREGON	80/yr toward target spec- ies; 102/yr total sea days	500/yr trawl sta- tions, 100 plankton/yr 100 neuston/ yr	Standard 40' semibal- loon trawl; High-opening fish trawl	Bongo array with .333-mm mesh nets; 1 x 2-m neuston net with .947mm mesh	Random (stratified) 5-60 fm	None
Reef fish (snap- er, grouper, tilefish)	Adults	Gulf of Mexico; South Atlantic; Caribbean	Territorial; open ocean (EEZ)	OREGON II; 127' CHAP- MAN	60/yr toward target species	150 longline sets/yr	Longline; traps; gill nets; camera	None	Varies	None
Latent resources (coastal her- ring, squid, butterfish)	Subadults- adults	Culf of Mexico	Territorial; open ocean (EEZ)	CHAPMAN	120/yr toward target species 145/yr total sea days	400/yr trawl stations	High-open- ing & mid- water bottom trawls	None	Transects	Expar
All recreation- ally & commer- cially impor- tant species; reef fish	Larvae; juvenile; adult	Culf of Mexico; SW FL; SE FL	Territorial; open ocean (EEZ); internal	ORECON 11; CHAPMAN; various small boats	120 /yr	3500/yr	Fish traps	Bongo nets 60 & 20 cm with .333-mm mesh; neuston 1 x 2-m with .947-mm mesh	Systematic, grid basis; long-term station selection; estuary entrances; reefs	Cont SEA cont SE mon
Atlantic croaker; spot	Subadults- adults	Charlotte Harbor; Tampa, Apa- lachicola, Pensacola, Mobile, Barataria, Corpus Christi, Galveston, San Antonio Bays:	Territorial	1331 FERREL	70/yr	130 fish per sampling site	30' otter trawl	None	Samples representa- tive of general contaminant levels at each sampling site (NOAA Status & Trends Program; National Benthic Surveillance Project; organic contamin- ants, trace metals, histopathology)	Proj yea
	TARGET SPECIES Groundfish (shrimp, spot, croaker, cat- fish, trout) Reef fish (snap- er, grouper, tilefish) Latent resources (coastal her- ring, squid, butterfish) All recreation- ally & commer- cially impor- tant species; reef fish Atlantic croaker; spot	TARGET SPECIESLIFE STACES SAMPLEDCroundfish (shrimp, spot, croaker, cat- fish, trout)Subadults- adultsReef fish (snap- er, grouper, tilefish)AdultsLatent resources (coastal her- ring, squid, butterfish)Subadults- adultsAll recreation- ally & commer- cially impor- tant species; reef fishLarvae; juvenile; adultAtlantic croaker; spotSubadults- adults	TYPES OF FIS INDEPENDENT STARGET SPECIESLIFE STACES SAMPLEDAREA SAMPLEDCroundfish (shrimp, spot, croaker, cat- fish, trout)Subadults- adultsGulf of Mexico South AtlanticReef fish (snap- er, grouper, tilefish)AdultsGulf of Mexico; South Atlantic; CaribbeanLatent resources (coastal her- ring, squid, butterfish)Subadults- adultsGulf of Mexico; South Atlantic; CaribbeanAll recreation- ally & commer- cially impor- tant species; reef fishLarvae; juvenile; adultGulf of Mexico; SE FLAtlantic croaker; spotSubadults- adultsCharlotte Harbor; Tampa, Apa- lachicola, Pensacola, Mobile, Barataria, Corpus Christi, Galveston, San Antonio Bases-	TYPES OF FISHERY- INDEPENDENT SAMPLINGTARGET SPECIESLIFE STAGES SAMPLEDGEOCRAPHIC AREAS OF AREA SAMPLEDCroundfish (shrimp, spot, croaker, cat- fish, trout)Subadults- adultsGulf of Mexico South AtlanticTerritorial; open ocean South AtlanticReef fish (snap- re, grouper, tilefish)AdultsGulf of Mexico; open ocean South Atlantic; CaribbeanTerritorial; open ocean (EEZ) Atlantic; CaribbeanLatent resources (coastal her- ring, squid, butterfish)Larvae; adultsGulf of Mexico; open ocean (EEZ)All recreation- cially impor- tant species; reef fishLarvae; adultsGulf of Mexico; open ocean (EEZ); SE FLAtlantic croaker; spotSubadults- adultsCharlotte Harbor; Tampa, Apa- lachicola, Pensacola, Mobile, Barataria, Corpus Christi, Galveston, San Antonio Bave:Territorial mantonio Bave:	TYPES OF FISHEN- INCEPENDENT SAMPLINGTARGET SPECIESLIFE STAGES SAMPLEDGEOGRAPHIC AREA SAMPLEDTYPES OF AREA SAMPLEDGroundfish (shrimp, spot, adultsSubadults- adultsGulf of Mexico South AtlanticTerritorial; Open ocean (EEZ)1121 OREGON II; Open ocean (EEZ)Reef fish (snap- ring, squid, butterfish)AdultsGulf of Mexico; South AtlanticTerritorial; Open ocean (EEZ)OREGON II; OPEN OCEAN IIReef fish (snap- er, grouper, tilefish)AdultsGulf of Mexico; South Atlantic; CaribbeanTerritorial; Open ocean (EEZ)OREGON II; HAN HAN Atlantic; CaribbeanLatent resources (coastal her- ring, squid, butterfish)Larvae; juvenile; adultsGulf of Mexico; South South South South South (EEZ)Territorial; OREGON II; Open ocean (EEZ)All recreation- cially impor- tant species; reef fishLarvae; adult Subadults- adult South South South South South South South South South South South South (EEZ); small boatsAtlantic croaker; spotSubadults- adults Atlantic Charlotte Barataria, Corpus Christi, Galveston, Son Antonio Bare-Territorial South South Ital South South South South 	TYPES OF FISTERY- INCEPROENT SAPLING ANNULL EFTORT I FISTERY-INCEPTOR INCEPROENT SAPLING ANNULL EFTORT I FISTERY-INCEPTOR BY ACTIVIT TARGET SPECIES LIFE STAGES SAMPLED CEOGRAPHIC AREA SAPPLED TYPES OF PLATFORMS TYPES OF PLATFORMS Groundfish (shrinp, spot, adults Subadults- adults Culf of Atlantic Territorial; (EZ) T21' OREGON 11 80/yr toward target spec- ies; 100/yr total sea days Reef fish (snap- er, grouper, tilefish) Adults Culf of Atlantic; Caribbean Territorial; (EZ) OREGON 11; HNN 60/yr toward target spec- ies; 100/yr total sea days Latent resources (coastal her- ring, squid, butterfish) Subadults- adults Culf of Hexico; Subadults- ially impor- adult Territorial; HX CHAPHAN (EEZ) CHAPHAN (CAPHAN; Various All recreation- cially impor- adults Larvae; adults Culf of Hexico; Subadults- caribbean Territorial; (EEZ) OREGON 11; CHAPHAN (EEZ) 120/yr toward target species Atlantic crosker; spot Subadults- adults Culf of Hexico; adults Territorial; SE FL OREGON 11; (HEZ); various 120/yr Atlantic crosker; spot Subadults- adults Charlotte Harbor; Tampa, Apa- lachicola, Pensacola, Mobile, Barateria, Corpus Christi, Calveston, San Antonio Bawei 133' FERREL 70/yr	TYPES OF FISER- INCEPBORT SWPLING ANNUL EFFOR DEVITE UT FISER-INCEPBORT SWPLING TURGET SPECIES LIPE STAGES SWPLED AREA SWPLED AREA SWPLED TURGET SPECIES Subdults- adults Oulf of Nexico south Territorial; 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(E(Z) T21' ORECON 11 80/yr toward target spec- tarant species Standard 40' semibal- toon travity raw days Standard 40' semibal- toon travity raw days Standard 40' semibal- toon travity raw days Standard 40' target spec- tarant species Standard 40' semibal- toon travity raw days Standard 40' semibal- toon travity raw days Standard 40' target species Standard 40' semibal- target species Standard 40' target species	TYPES OF FISERF- INCEPENDENT SAPELING ANALL EFFORT EXAMPLED INCEPENDENT SAPELING ANALL EFFORT EXAMPLED INCEPENDENT SAPELING TYPES OF CEAR TARGET SECIES LIFE STAZES SAMPLED LIFE STAZES SAMPLED CEXCOMMANC AREA SAMPLED TYPES OF INTEGEN OF PARTOWNIN IN: BAREA OF DAYS SAPELES INTEGEN OF INTEGEN OF INTEGE	Types of Fisser- INSERTISENT SAFELING ARAMAL EFFET REFORE TOROUTED TO FISSERTING ARAMAL EFFET REFORE TOROUTED TO FISSERTING Types of FISSERTING NAMEL STATEST TAGET SECLIS LIFE STAZES SAFELS TYPES OF SAFELS TYPES OF FISSERTING TYPES OF RATEA SAFELS TYPES OF RATEA SAFELS FISSERTING FISSERTING SAFELS FISSERTING SAFELS FISSERTING SAFELS FISSERTING SAFELS FISSERTING SAFELS FISSERTING FISSERTING SAFELS FISSERTING SAFELS FISSERTING SAFELS FISSERTING SAFELS FISSERTING SAFELS SAFELS FISSERTING FISSERTING SAFELS SAFELS FISSERTING FISSERTING

TICIPATED HANGES IN RECTION OF ERY-INDEPEND. IVITIES OVER EXT 5 YEARS	HICH PRIORITY SPECIES PRESENTLY UNABLE TO SAMPLE
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	None
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ject funded on arly basis	None

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AGENCY	TARGET SPECIES	LIFE STACES SAMPLED	AREA SAMPLED	GEOGRAPHIC AREAS OF IMPORTANCE	TYPES OF Platfor ms	NUMBER OF DAYS	NUMBER OF SAMPLES	FISHING, TRAWLING	plankton	SAMPLE STRATECY FOR DATA COLLECTION	ACTIV
NO AA NMFS/SEFC Galveston Lab (TX)	Penaeid shrimp; bottomfish; estuarine dependent spp.	Postla rvae- adults	Culf of Mexico	Internal; EEZ	OREGON 11 (Texas Closure); small boats	257/yr	1996/yr	Other trawls 10'-40'; beam trawl; drop sampler		Random stratified for Texas Closure; long-term studies for estuarine ecology	None
	•										
	Sea turtles	Juveniles	Gulf of Mexico	Internal; EEZ-oil	Bay boats; helicopters;	12/yr	96	Otter trawls			
			•	and gas platforms	crew boats; zodiac	45/yr	Various	60'-80' None	None None	Random Random	None
	Kemp's ridley sea turtles	Hatchlings- yearlings	Culf of Mexico (release of tagged turtles)	Territorial Sea; EEZ (Texas)	U.S. Coast Cuard Cutter; Univ. Texas R/V LONCHORN	2	1-2 releases per year	None	None	None	None
	Sea turtles	Stranded juveniles- adults	SW LA; TX	Coastline beaches	All terraine vehicles; dirt bikes; outboard boats	50	Variable	None	None	Twice-monthly stratified random sampling by beach strata	None
NOAA NMFS/SEFC Panama City	King & Spanish mackerel	Subadults- adults; larvae	Culf of Mexico; South	Territorial; open ocean (EEZ)	ORECON 11; CHAPMAN; small boats	50/yr	Various	Trawls; longlines; trolling	Bongo nets 60 & 20 cm with .333-mm mesh;	Systematic, grid basis; long-term station	Contin SEAMA
Lab (FL)			Atlantic						neuston 1 x 2-m with .947-mm mesh; tucker traw}	selection; oceanic discon- tinuities	
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TICIPATED WANGES IN RECTION OF ERY-INDEPEND. IVITIES OVER EXT 5 YEARS	HIGH PRIORITY SPECIES PRESENTLY UNABLE TO SAMPLE
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					TYPES OF FISHERY- INDEPENDENT SAMPLING		ANNUAL EFFORT FISHERY-INDEPEN BY ACTIV	DEVOTED TO DENT SAMPLING ITY IN:	TYPES OF	GEAR		
	AGENCY	TARGET SPECIES	LIFE STAGES SAMPLED	AREA SAMPLED	GEOGRAPHIC AREAS OF IMPORTANCE	TYPES OF Platforms	NUMBER OF DAYS	NUMBER OF Samples	FISHING, TRAWLING	PLANKTON	SAMPLE STRATEGY FOR DATA COLLECTION	ANT CF DIF FISHE ACTI NE
	U.S. Dept. of Interior, Fish & Wildlife, LSU, Baton Rouge, LA	All economically important estuarine- dependent fishes & crustaceans	Larvae- juveniles	SW LA; south central LA	Estuarine	35-hp outboard	Varies	Once every two weeks	Custom- designed shallow marsh trawl; traps;	None	Systematic, long-term station selection; short-term special studies	Deper func rema
	U.S. Army Corps of Engineers, Mobile, AL	All commercial- ly & recrea- ationally im- portant species	All stages	Mobile Bay; MS Sound; Culf of Mexico to	Internal; territorial	Charter research vessel; small boats	Varies with project	Varies with project	Varies	None	Systematic, random, short-term special studies	None
		F		the 20-fm contour								
	USDł MMS/GOM OCS Region New Orleans,	Projects are	e as follows:									
	LA											
	Protected Species Study	All sea turtles & cetaceans	Adult	Central northern Gulf	Continental shelf & slope	Aerial over flights; contracted	40		Photos; videos	None	Stratified X-sects	Proje in
		• * •				fishing vessel; R/V CHAPMAN						
	MS/AL Pinnacle Trend Study	None	None	MS/AL outer shelf	Shelf to 200 m	R/V TOMMY MUNRO	14/yr	Varies	None	None	Side-scan and and photography cruises	Proj in
	Flower Garden Monitoring Study	Corals	Mature colonies	East and west Flower Garden Banks	Reef	M/V FLING; Motor vessels	18/yr	Varies	None	None	Photographs, video tape and diver surveys	Proj in
	LA/TX Shelf Program	None	N/A	LA/IX contin- ental slope & shelf	Continental shelf	Moored and drifting buoys; Ships and aircraft	N/A	N/A	None	None	Hydrographic and current measurements	Projo in

TICIPATED HANGES IN RECTION OF ERY-INDEPEND. IVITIES OVER EXT 5 YEARS

HIGH PRIORITY SPECIES PRESENTLY UNABLE TO SAMPLE

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None

None

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TABLE 2. SUMMARY OF INFORMATION PROVIDED BY STATE AGENCIES

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			Types of f Independent	I SHERY- Sakpling		ANNUAL EFFOR Fishery-indeped by activ	t devoted to Ndent Sampling Vity IN:	TYPES OF	CEAR			
AGENCY	TARGET SPECIES	LIFE STACES SAMPLED	AREA SAMPLED	GEOGRAPHIC AREAS OF IMPORTANCE	Types of Platfor ms	NUMBER OF DAYS	NUMBER OF Samples	FISHING, TRANLING	PLANKTON	SAMPLE STRATEGY FOR DATA COLLECTION	ANTICIPATED CHANCES IN DIRECTION OF FISHERY-INDEPEND. ACTIVITIES OVER NEXT 5 YEARS	HIGH PRIORITY SPECIES PRESENTLY UNABLE TO SAMPLE
Alabama Dept. of Conserva- tion & Nat. Resources	All penaeid shrimp; southern flounder; Gulf menhaden; spot; croaker; red- drum; seatrout; blue crab; black drum; Spanish mackerel; mullet	Larvae- adults	AL marshes to territo- rial sea	Internal; territorial; EEZ	22' Tiara, (2) 90-hp; 23' Seacraft (2) 150-hp; 32' Laffitte	110/yr	450/yr	50' bag seine; 16' otter trawl	6' beam plankton trawl; neuston	Long-term station selection, effort varies according to spawning season of target species	Increase effort to determine year-class strength of target species; Conduct more age and growth work; Explore means to sample offshore redfish areas	King mackerel, cobia, reef fish in open Gulf waters
Florida Dept. of Natural Resources	Red drum; spotted trout; snook; king mackerel; mullets; gag grouper; tarpon; baitfish; stone crab; blue crab; spiny lobster; oysters; hard clam	All stages, larvae- adults	FL waters & offshore	Internal; territorial; EEZ	37' BONNIE "E"; 24' T-craft inboard; 3 small out- boards used for inshore sampling; 5 mullet skiffs; 34' Allmand; 24' tunnel boat.	Varies Weekly intervals (annually)	Varies with project	35' trawl 100' bag seine; benthic sled with net; 600' x 8' trammel net; lobster & crab traps	bongo array; neuston nets	Systematic, random (stratified), grid basis; long-term station selection, short- term special studies	As per Florida Marine Fisheries Commission; Increase sampling for baitfish distributed in spring and increase sampling for tarpor larvae in nearshore waters.	Mainly applies to implementation or research phases on current species or topic with additional e personnel and increased fundin
			2		19' Monark; 2-17' Boston Whalers; 85' HERNAN CORTEZ 11; 20' Boston Whaler;	60/yr	•		•		· · · ·	
				· · ·	25' Boston Whaler; 3-20' MAKO; 16' Monarch; 4-20' mullet skiffs; 16' skiff		·					
Louisiana Dept. of Wildlife & Fisheries	All penaeid shrimp; finfish; oysters	Larvae- adults	LA inshore waters; territorial seas; EEZ	Internal; territorial	13-17' out- boards for 6' trawl; 30' in- boards for 16' trawls; 85' vessel (LOOP) for 50' trawl Leased vessel	167/yr state 92/yr LOOP 16/yr	Plankton, 528/yr; Benthos, 56/yr; Trawls: 800/yr 1288/yr 494/yr 72/yr 12/yr 96/yr	Otter Trawls: 6' (inshore) 16' (inshore) 16' (offshore) 50' (offshore) 50' (inshore) 40' (offshore)	1/2-m surface ring nets (.153-mm & .363-mm) 1-m surface ring (363-mm) 60-cm bongo nets (.333363-mm) neuston (.948-mm)	Long-term station selection, LOOP monitoring, and stratified random sampling for SEAMAP (40' trawls and plankton)	Increase territorial sea sampling; increase emphasis on finfish	Adult pelagic finfish in open Gulf waters
en alf an agustatus and ta a ta Agusta					₩U° LI'd₩I		250/yr 1500/yr 100/yr 576/yr 135/yr 144/yr	50' bag seine; gill net; trammel net oyster: butlerplate sq. meter dredge				

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			. Types of F1 Independent	Shery- Sakpling	ANNUAL EFFORT DEVOTED TO FISHERY-INDEPENDENT SAMPLING BY ACTIVITY IN:		TYPES OF GEAR			
AGENCY	TARGET SPECIES	LIFE STAGES SAMPLED	AREA SAMPLED	GEOGRAPHIC AREAS OF IMPORTANCE	TYPES OF Platforms	NURBER OF DAYS	NUMBER OF Samples	FISHING, TRAKLING PLANKTON	SAMPLE STRATECY FOR DATA COLLECTION	ANTI CHA DIRE FISHER ACTIV NEX
Mississippi Bureau of Marine Resources	All penaeid shrimp; sciaenids	Juveniles- adults	MS territo- rial se a	Internal; territorial; (EEZ)	32' Laffitte; 19' Proline; 65' oyster dredge boat;	50/yr; 10/yr; 50-60/yr	Varies; oyster 6/mo; shrimp 10- 15/mo; varies	16 ¹ trawl; None oyster tongs and dredge;	Long-term station selection, varies with opening and closing of areas	Increa activ
Texas Parks & Wildlife Dept.	All penaeid shrimp; all other species	Juveniles- adults	TX internal coastal waters; territorial sea	Internal; territorial	301-451 inboards; 181-211 outboards; skiffs	365/yr	2022/yr 1680/yr 960/yr 760/yr	60' bag seines None (shoreline); 20' trawl (bay, open water); 20' trawl (Gulf waters); gill nets for	Random, grid basis	None
							2520/yr 294/yr	adult finfish (along shore); oyster dredge; beach seine		

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HIGH PRIORITY SPECIES PRESENTLY UNABLE TO SAMPLE

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Adult finfish in open Gulf waters

TABLE 3. SUMMARY OF INFORMATION PROVIDED BY UNIVERSITIES

			TYPES OF FI	SHERY- Sakpling		ANNUAL EFFORT FISHERYINDEPENE BY ACTIVI	DEVOTED TO DENT SAMPLING TY IN:	TYPES OF	CEAR			
UNIVERSITY	TARGET SPECIES	LIFE STACES SAMPLED	AREA SAMPLED	GEOGRAPHIC AREAS OF IMPORTANCE	TYPES OF Platfor ms	NUMBER OF DAYS	NUMBER OF SAMPLES	FISHING, TRAVILING	PLANKTON	SAMPLE STRATEGY FOR DATA COLLECTION	ANTICIPATED CHANGES IN DIRECTION OF FISHERY-INDEPEND. ACTIVITIES OVER NEXT 5 YEARS	HICH PRIORITY SPECIES PRESENTLY UNABLE TO SAMPLE
						FLOR	IDA					
Florida State Tallahassee	Benthic in- fauna; epibenthic fishes & in- vertebrates	Larvae- adults	NE Gulf of Mexico	Internal; territorial	(3) 55-hp 25' skiffs; outboard	48/yr	Monthly samples, both trawl & environ.	Standard 5-m otter trawl	80-um plankton net	Systematic, random long-term station selection; short-term special studies	More environ- mental experi- mentation	Areas: Apalachi- cola Bay system & Apalachee Bay; species: all species in those areas
Univ. West Florida Pensacola	Demersal vertebrates & invertebrates	Subadults- adults	NE Gulf of Mexico	Estuarine	18' skiff	7/yr trawl; 14/yr plankton neuston	50/yr; 140/yr	16' otter trawl	2 (1-m) bongos 3 (1-m) neuston s	Systematic, random (stratified)	More environ- mental assess- assessment	None
Florida Sea Grant Gainesville	All species	All stage s	Gulf; Caribbean; South Atlantic	Estuarine; offshore	Industry, NMFS and F.I.O. contract vessels	Varies with project	Varies with project			Varies with project	None	None
Florida Institude of Ocean- ography St. Petersburg	All species	All stage s	Gulf; Caribbean; South Atlantic	Internal, territorial	SUNCOASTER; BELLOWS	20-30/project	Varies	40' otter trawl: Tucker trawl; shellfish dredge	Various plankton nets	Random, long- term station selection; short-term special studies	To continue with SEAMAP; Expanded environmental sampling	None
University of Florida Gainesville	Offshore: deep- water crabs & lobsters; nearshore: stone crabs	Offshore: adults, juveniles; nearshore: adults, sub- adults	Offshore & nearshore, eastern Gulf of Mexico	Offshore: continental slope nearshore: internal, territorial	Offshore: SEWARD JOHNSON; ORECON II; industry vessel; sumersible; nearshore: 24 inboard- outboard	Offshore: 7/yr; nearshore: 30+/yr	Offshore: 96 transects 2 trawl tows 5 trap lines nearshore: 5 transects/ day	Otter trawl; various traps; scuba and 250-m tran- sect line	•	Offshore & Nearshore: inten- sive sampling during mating season	None	None
University of Miami	All species	All stages	Gulf; Caribbean; South Atlantic	Estuarine; offshore; nearshore	Offshore: COLUMBUS ISELIN nearshore: CALANUS estuarine: 25' 1/0's	240/yr 200/yr 150/yr	Varies with project X X	Hydroacoustics	Various plankton nets	Varies with project	More hydro- acoustics	None
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			TYPES OF FIS INDEPENDENT S	HERY- FAMPLING		ANNUAL EFFORT FISHERY-INDEPEND BY ACTIVI	devoted to ent sakpling ty in:	TYPES OF (GEAR			
UNIVERSITY	TARGET SPECIES	LIFE STACES SAMPLED	AREA SAMPLED	GEOGRAPHIC AREAS OF INPORTANCE	TYPES OF PLATFORMS	NUMBER OF DAYS	NUMBER OF SAMPLES	FISHING, TRAWLING	PLANKTON	SAMPLE STRATEGY FOR DATA COLLECTION	ANTICIPATED CHANCES IN DIRECTION OF FISHERY-INDEPEND. ACTIVITIES OVER NEXT 5 YEARS	HIGH PRIORITY SPECIES PRESENTLY UNABLE TO SAMPLE
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Marine Environmental Sciences Consortium (University of South AL) U. Alabama)	Sciaenidae; hard clam	Larval/adult	Shelf and mouth of Mobile Ba y, NW Florida and east AL	Shelf/ estuaries/ grassbeds	21' skiffs	22/24 episodic/ quarterly	Several hundred	-	Surface and demersal	Environmental impact/growth rate	Shift toward managment application	None
Marine Environmental Sciences Consortium (University of AL)	Oysters; blue crab	Larva]/adu]t	Mobile Bay and east MS Sound	Estuarine	261-421 research vessels	Biweekly and 48 hour time ser ie s	Hundreds		Clark-Bumpers zooplankton	Distribution patterns settlement factors	; None	None
Mississippi- Alabama Sea Grant Consortium Ocean Springs (MS)	Red drum; blue crabs; stone crabs; oysters	Vertebrates: larvae; invertebrate: all stages	Northern Gulf of Mexico; MS Sound; Mobile Bay	Territorial; EEZ; estuarine; coastal	96' TOMMY MUNRO; skiffs; industry	Varies with project	Varies with project	Various types of crab pots; tonging for oysters; clos- ed, recircu- lating sea- water system for crabs; opening/clos-	Tucker trawl (.202-mm and .333-mm mesh nets); 60-cm bongo net	Varies with project	None	None
	Estuarine fish species	Juvenile to sub-adult	Weeks Bay, AL	Estuarine	141 skiffs	60/yr	180/yr	ing plankton trawl Block nets/ seine		Random concentrated in May, July and September		None
					:	MISSIS	SIPPI				•	
Univ. So. Mississippi Hattiesburg	All estuarine finfish; centrarchids		MS estuarine; northern Gulf; Biloxi Bay	Estuarine; territorial	Various small skiffs (outboard)	Varies S	Varies with project	Standard basic equip- ment	Standard basic equipment	Short-term special studies	Increase develop- ment of marine and coastal biology program	None

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			TYPES OF FI	SHERY- SAMPLING		ANNUAL EFFORT FISHERY-INDEPEN BY ACTIV	devoted t o Dent sampling Ity in:	TYPES OF	CEAR			
	•			GEOGRAPHIC		· · · · · · · · · · · · · · · · · · ·		· · · ·			ANTICIPATED CHANCES IN DIRECTION OF FISHERY-INDEPEND.	HIGH PRIORITY
UNIVERSITY	TARGET SPECIES	LIFE STAGES SAMPLED	AREA SAMPLED	AREAS OF	TYPES OF Platforms	NUMBER OF DAYS	NUMBER OF SAMPLES	FISHING, TRAMLING	PLANKTON	SAMPLE STRATEGY FOR DATA COLLECTION	ACTIVITIES OVER NEXT 5 YEARS	SPECIES PRESENTLY UNABLE TO SAMPLE
		J E				MISSIS	SSIPPI					
Culf Coast Research Laboratory Ocean Springs	All penaeid shrimp; blue crab; croaker; spot; seatrout; catfish; Culf menhaden; sea mullet; Atlan. bumper; butter- fish; cutlass- fish; red drum; squid; golden Gulf crabs	Larvae- adults	HS territor- ial sea; offshore to 300 fm	Internal; territorial; (EEZ)	96' TOMMY MUNRO; (5) 20' skiffs; 35' HERMES; 40' NEREUS;	Semimonthly and monthly	216 trawl stations/ yr	50' bag seine; 36' otter trawl; 16' otter trawl; 6' Renfro beam trawl; variable mesh gill net sampler; 40' shrimp trawl; 80' high-rise net; crab traps	Tucker traw; neuston; bongo	Long-term station selection; stratified- random	Fishery Division anticipates its program of moni- toring & assess- ment over the long term, with appropriate in- creases in inten- sity & scope if funds become available; longline for pelagic fishes; bottom longline; deepwater traps for crabs	None
Mississippi- Alabama Sea Grant Consortium Ocean Springs	Red drum; blue crabs; stone crabs; oysters	Vertebrates larvae; invertebrates: all stages	Northern Gulf of Mexico; MS Sound; Mobile Bay	Territorial; EEZ; estuarine; coasta}	96' TOMMY MUNRO; skiffs; industry	Varies with project	Varies with project	Various types of crab pots; tonging for oysters; clos ed, recircu- lating sea- water system for crabs; opening/clos- ing ichthy. trawl	Tucker trawl (.202-mm and .333-mm mesh - nets); 60-cm bongo net	Varies with project	None	None
					- - -	LOUIS	SIANA					
Univ. New Orleans New Orleans	Blue crab; oysters; marine commercial finfish	All stages	Lake Pon t- chartrain; Lake Borgne	Estuarine		Varies				Short-term special studies	Analyze commer- cial fish pop- ulations by use of electro- phoresis; studies of oyster nutri- tion and para-	None
					•				-	-	sitology	

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			TYPES OF FIS INDEPENDENT S	HERY- Garpling		NHUAL EFFORT FISHERY-INDEPEN BY ACTIV	DEVOTED TO DENT SAMPLING ITY IN:	TYPES OF	GEAR		
UNIVERSITY	TARGET SPECIES	LIFE STAGES SAMPLED	AREA SAMPLED	GEOGRAPHIC AREAS OF IMPORTANCE	types of platforms	NUMBER OF DAYS	NUMBER OF SAMPLES	FISHING, Trawling	PLANKTON	SAMPLE STRATEGY FOR DATA COLLECTION	ANT CH DIR FISHE ACTI NE
			-			LOUIS	SIANA				
McNeese St. University Lake Charles	Periphyton chemical		Calcasieu Estuary	Estuarine		Varies	Monthly	Periphytona			None
Nicholls St. University Thibodaux	Oysters	All stages	Terrebonne Bay; Barataria Bay	Estuarine	21' skiff; 30' oyster dredge boat	48/ yr	144/yr	Oyster dredge		Random, long-term station selection	2 mor with proj it e
University of Southwestern Louisiana Lafayette	Stone crabs; penaeid shrimp; commercial finfish	All stages	Northern Gulf of Mexico	Coastal; estuarine	Various LUMCOM vessels	Varies	Varies	Trawl; dredge; traps; pots; seines		Varies by population	None
Louisiana St. University Baton Rouge	Estuarine & marine finfish species; decapod crustace	All stages ans	Barataria Bay; Lake Pont- chartrain; MS River mouth Atchafalaya; Terrebonne Bay Timbalier Bay	Estuarine; territorial; (EEZ) ;	Small skifts; PELICAN; ACADIANA; oil & gas structures	Varies monthly	Varies with project	Drop BOT sampler; gill nets; Hydroacoustics trawl	MOONESS opening and closing bongo nets; general plankton nets	Short-term special studies; long-term stations; Radar	Estin abur usir Exam rep of spec
Louisiana Universities Marine Consortium Cocodrie	Zooplankton; benthos; bottomfish; anchovies	All stages	Terrebonne and Tim- balier Bays; Inner Cont. Shelf	Estuarine; coastal	110' PELICAN; 58' R/V ACADIANA; small out- boards; 19-m, 32-m vessels	Varies	Varies	5-m otter traw]	.333-mm & .505-mm mesh bongo nets	Fixed station transects	None

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ICIPATED ANCES IN ECTION OF RY-INDEPEND. VITIES OVER XT 5 YEARS	HIGH PRIORITY SPECIES PRESENTLY UNABLE TO SAMPLE
	None
e years	None
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	None
nate fich	
ndance & moveme ng hydroacousti ine growth rate roduction biolo important estua cies	nt cs; s& gy nrine
•	None
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			TYPES OF FISHERY- INDEPENDENT SAMPLING			ANNUAL EFFORT DEVOTED TO FISHERY-INDEPENDENT SAMPLING BY ACTIVITY IN:		TYPES OF GEAR			
		LIFE STAGES		CEOGRAPHIC AREAS OF	TYPES OF		MINSED DE	FIGHING		SAMPLE STRATEGY FOR	ANT CE DII FISHE ACT
UNIVERSITY	TARGET SPECIES	SAMPLED	AREA SAMPLED	IMPORTANCE	PLATFORMS	NUMBER OF DAYS	SAMPLES	TRAWLING	PLANKTON	DATA COLLECTION	N
						TEX	AS				
Univ. of TX, Austin Marine Science Institute, Port Aransas	Shelf & bay species	All stages	Internal; territorial waters	Internal; territorial; (EEZ)	1051 Longhori 571 Katy	N 100/yr	Varies with projec t	42' semi- balloon shrimp trawl; 40' semi- balloon otter trawl	12' x 24" plankton net	Short-term special studies	Inst pan pre
Texas A & I Kingsville	All inshore bay species	All stages	Corpus Christi to Brownsville	Internal; coastal	• .	24 /y r	150 /y r			Short-term special studies	None
Texas A & M College Sta- tion and Galveston	All macro- crustaceans and finfish	All stages	NW Culf off LA & TX	Internal; territorial; (EEZ)	71' EXCEL- LENCE II; 47' ROAMIN EMPIRE	Varies	Varies with project	34' & 50' semi- balloon trawls	Bongo net with .333-mm & .505-mm mesh	Short-term special studies	None
University of Texas-Pan American Coastal Stud- Lab, So. Padre Island	All finfish of Laguna Madre, benthic macrofauna of Laguna Madre	All stages	Corpus Christi to Brownsville	Laguna Madre; Gulf near- shore	Shallow- draft bay boats	48/yr	Biweekly and monthly depending on project	Otter trawls & bag seines	Plankton tows	Long-term baseline studies	Inte of spe

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TICIPATED HANGES IN RECTION OF HIGH PRIORITY ERY-INDEPEND. SPECIES PRESENTLY IVITIES OVER UNABLE TO SAMPLE EXT 5 YEARS itute ex-None sion o**n all** esent programs None None ensive studies None individual ecies . .

APPENDIX A

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MARINE AGENCY CONTACTS

FEDERAL AGENCIES

U.S. DEPARTMENT OF COMMERCE NOAA/NATIONAL MARINE FISHERIES SERVICE Southeast Fisheries Center

Dr. Brad Brown, Acting Director 75 Virginia Beach Drive Miami, Florida 33149 (305) 361-4284

Miami Laboratory Dr. Joseph Powers 75 Virginia Beach Dr. Miami, FL 33149 (305) 361-4225

Mississippi Laboratories Dr. Walter Nelson Pascagoula Facility P.O. Drawer 1207 Pascagoula, MS 39568 (601) 762-4591

National Space Technology Laboratories Stennis Space Center, MS 39529 (601) 688-3650

Statistics and Data Management Office Dr. Albert Jones 75 Virginia Beach Dr. Miami, FL 33149 (305) 361-4259 Calveston Laboratory Dr. Edward Klima 4700 Avenue "U" Galveston, TX 77550 (409) 766-3500

Panama City Laboratory Dr. Eugene Nakamura 3500 Delwood Beach Rd. Panama City, FL 32408 (904) 234-6541

Beaufort Laboratory Dr. Ford Cross Beaufort, NC 28516 (919) 728-8724

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Dr. Robert M. Avent Continental Slope Study Florida Shelf Ecosystems Study (504) 736-2899 Dr. Murray Brown Circulation Modelling Program Field Measurements Program (504) 736-2901

U.S. Fish and Wildlife Service

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U.S. DEPARTMENT OF DEFENSE

Dr. Susan Rees, PD-EC U.S. Army Corps of Engineers Dept. of Denfense P.O. Box 2288 Mobile, AL 36628 (205) 690-2724

CULF AND SOUTH ATLANTIC FISHERIES DEVELOPMENT FOUNDATION, INC. Ms. Judy Jamison, Executive Director 5401 W. Kennedy Blvd. Suite 669 Tampa, FL 33609 (813) 286-8390

STATE AGENCIES

.

ALABAMA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES Mr. Walter M. Tatum Drawer 458 Gulf Shores, AL 36542 (205) 968-7576

> FLORIDA DEPARTMENT OF NATURAL RESOURCES MARINE RESEARCH INSTITUTE Mr. J. Alan Huff 100 8th Avenue, S.E. St. Petersburg, FL 33701 (813) 896-8626

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MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES AND PARKS Bureau of Marine Resources Mr. Tom Van Devender 2620 Beach Blvd. Biloxi, MS 39531 (601) 385-5860

> TEXAS PARKS AND WILDLIFE DEPARTMENT Dr. Gary Matlock 4200 Smith School Road Austin, TX 78744 (512) 389-4857

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FLORIDA UNIVERSITY PROGRAMS (CONTINUED)

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University of New Orleans ~ Dr. Thomas M. Soniat Department of Biological Sciences New Orleans, LA 70148 (504) 286-6307

University of Southwestern Louisiana Dr. Darryl L. Felder Department of Biological Sciences Box 42451 Lafayette, LA 70504 (318) 231-6748

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The University of Texas at Austin Dr. Robert S. Jones Marine Science Institute P.O. Box 1267 Port Aransas, TX 78373 (512) 749-6730

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APPENDIX B

SEAMAP DOCUMENTS

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SEAMAP DOCUMENTS LIST, 1982 - CURRENT

- <u>SEAMAP Strategic Plan</u>; January 1981.: The initial planning document describing the intent to develop the SEAMAP Program and outlining the preliminary goals and objectives, assessment requirements and priorities, research strategies, and funding requirements.
- 2) <u>SEAMAP Quick-Reports</u> (Data Summaries): six summaries, June-July 1981; seven summaries, June-July 1983; seven summaries, June-July 1984; five summaries, June-July 1985; five summaries, June-July 1986; six summaries, June-July 1987; five summaries, June-July 1988; six summaries, June-July 1989. Summaries of catch rate information from the SEAMAP Summer Shrimp/Groundfish surveys (Squid/Butterfish Survey, 1985 only) in the northern Gulf of Mexico, indicating stations sampled, catch rates, assessment of shrimp and finfish yields, and synopses of hypoxic conditions in the survey areas.
- 3) <u>1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990 SEAMAP Marine Directories</u>: May 1983, March 1984, March 1985, March 1986, September 1987, July 1988, August 1989, and June 1990. Inventories of marine agency contacts (State, Federal and university) concerned with fishery research in the Culf, and summaries of information provided by these organizations: target species, types of fishery-independent sampling gear and platforms, annual sampling effort and other material.
- 4) <u>SEAMAP Information System Manual</u>, Fall 1983. A description of the data management program supporting SEAMAP surveys and collecting activities, detailing the data processing and quick-report subsystems and presenting data formats for SEAMAP surveys and sample documentation and transmittal forms.
- 5) <u>SEAMAP-Culf Operations Plan</u>, October 1983. A description of the SEAMAP Program, its goals and objectives, program accomplishments, survey and information systems operations, survey plans and schedules, program management, and funding requirements. Includes figures and tables detailing system functions, platform and funding needs, and information utilization.
- 6) <u>SEAMAP-Gulf Operations Plan Executive Summary</u>, March 1984. A summary of the features of the Operations Plan.
- 7) <u>SEAMAP Environmental and Biological Atlases of the Culf of Mexico, 1982, 1983, 1984, 1985, 1986,</u> January 1985; February 1986; October 1986; June 1988; April 1990. Compilations of information obtained from the 1982, 1983, 1984 and 1985 SEAMAP surveys. Included are dominant finfish and invertebrate catches from the shrimp/groundfish surveys, results of the plankton surveys, environmental data taken during both surveys, and methodology used in SEAMAP surveys.
- 8) <u>SEAMAP 1982, 1983 Ichthyoplankton Atlases</u>. NOAA Technical Memoranda NMFS-SEFC-144 (1985) and NMFS-SEFC (1986) summarizing in plots the larval distribution and abundance of the families Engraulidae, Carangidae, Clupeidae, Lutjanidae, Serranidae, Coryphaenidae, Xiphiidae, and Scombridae taken on SEAMAP surveys in 1982 and 1983.

SEAMAP DOCUMENTS LIST, 1982 - CURRENT

9) <u>Proceedings: SEAMAP Shrimp and Bottomfish Sampling Cear Workshop</u>, August 1985. A summary of seven technical papers and a panel discussion on shrimp/groundfish sampling gear, presented at the 33rd Annual Spring Meeting of the Culf States Marine Fisheries Commission. Included are recommendations for standardizing and calibrating bottom trawl survey activities and for satisfying future research requirements.

10) Annual Report of the Southeast Area Monitoring and Assessment Program,

October 1, 1984 - September 30, 1985, October 1985; October 1, 1985 - September 30, 1986, October 1986; October 1, 1986 - September 30, 1987, December 1987; October 1, 1987 - September 30, 1988, August 1989; October 1, 1988 - September 30, 1989, March 1990. Summaries of activities and proposed events for the SEAMAP-Gulf, SEAMAP-South Atlantic and SEAMAP-Caribbean components.

11) Data Management System Requirements Document for Gulf and South Atlantic, November 1986.

- 12) <u>Data Management System Design Study for Gulf and South Atlantic</u>, March 1987. A result of the system design study, this documents describes the high level design of the proposed system and presents a five year implementation plan.
- 13) <u>SEAMAP Operations Manual for Collection of Data</u>, May 1987; revised May 1990. A manual presenting the procedures to be followed by all vessels that participate in SEAMAP surveys.
- 14) <u>SEAMAP Data Management System Users Manual</u>, August 1989. A manual outlining system operations and procedures needed to enter, edit, upload and download data on the PC- based system.

Biological and environmental data, and ichthyoplankton specimens sorted to the family level from SEAMAP surveys in the Gulf of Mexico, are available to researchers upon request to the SEAMAP Coordinator, Gulf States Marine Fisheries Commission (601/ 875-5912).