



**A Report on the Discard Data from the  
Southeast Fisheries Science Center's  
Coastal Fisheries Logbook Program**

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## **I. Introduction**

The Southeast Fisheries Science Center (SEFSC) initiated a program to collect information on the type and amount of marine resources that are discarded or interacted with by vessels in the Gulf of Mexico reef fish, South Atlantic snapper-grouper, king and Spanish mackerel and shark fisheries in the southeastern United States. The reporting regulations for the fishery management plans for all of these fisheries requires mandatory reporting for every trip that is taken by a vessel with a federal permit in these fisheries. The SEFSC developed a supplemental form that is used with the existing logbook form to collect discard data as mandated by the Sustainable Fisheries Act.

The purpose of this report is to provide the results from the supplemental discard form for the first two years that this reporting activity has been conducted. The program was initiated in July 2001 when vessels were selected to report. The selected vessel owners were requested to begin reporting their discards for all trips that were landed after August 1, 2001 through July 31, 2002. In July 2002, a different set of vessels was selected to report their discards for the period August 1, 2002 through July 31, 2003. The information in this reports includes the discard data for the period August 1, 2001 through July 31, 2003.

## **II. Methods**

To reduce the reporting burden on the fishermen, a 20% sample of the vessels with a Gulf of Mexico, South Atlantic snapper-grouper, king mackerel, Spanish mackerel or shark permit was selected to report. To assure that the sample is representative of the total universe of vessels with Federal permits, a stratified, random sample was selected from the universe of all vessels with the above types of Federal permits. For the first year (8/1/2001 - 7/31/2002), a 3 tiered stratification was used. One tier was geographical, and the universe was divided into two geographical strata - the Gulf of Mexico (Florida Keys to the Texas-Mexican border) and the South Atlantic (which extends from the North Carolina - Virginia border to the Florida Keys). The second stratum was based on the type of gear. There were 5 categories in this stratum - handline, longline, trolling, trap and gill nets. The third stratum was based on the fishing activity of the vessels during calendar year 2000. There were two strata in this tier - (1) vessels that made between 1 and 10 trips and (2) vessels that made more than 10 trips. In all, there were 20 strata for the sampling in the first year. However, there were too few boats that used gill nets in the Gulf of Mexico, so all of the boats that used gill nets in the Gulf were combined into a single strata. Consequently, random selections were made in 19 strata.

A total of 2,384 vessels had an active permit when the sample selections were made in July 2001. However, 115 of these vessels were eliminated from the universe because they did

not fit into any of the defined strata. The majority of these vessels reported using diving gear (spear guns and/or power heads) or reported using an unspecified type of gear. Thus, a total of 2,269 vessels comprised the universe of all “eligible” vessels that were used to make the random selections. A 20% selection of the vessels in each of the 19 strata was made which resulted in 455 vessels being selected to report.

Similar to the first year, a stratified, random procedure was used to select the vessels to submit their discard information for the second year, 8/1/2002 - 7/31/2003, of the discard survey. However, slightly different criteria were used to make the selection for the second year. First, the vessels that were selected to report for the first year were removed from the universe before the random selections were made. Second, vessels, that was selected to report their cost data as part of that data collection program, were also eliminated from the universe of available vessels. Lastly, only two tiers were used instead of the three that were used for the first year. The fishing activity strata was eliminated because too many of the vessels changed their fishing patterns and moved to a different strata from the one they were selected to represent. Consequently, 10 strata were used for random selections made for the second year.

The numbers of vessels selected to report for each of the two survey years are presented in Table 1.

Table 1. Numbers of vessels selected for each strata during the two survey period.

Gulf of Mexico	Survey period 8/1/2001 - 7/31/2002	Survey period 8/1/2002 - 7/31/2003
Handline*	162	176
Bottom Longline	28	23
Trolling	17	5
Traps/Pots	9	11
Gillnet	5	0
South Atlantic		
Handline*	136	162
Bottom Longline	9	7
Trolling	65	3
Traps/Pots	9	44
Gillnet	15	14
Total	455	445

\* Handline gear includes electric or bandit rig gear.

The fishermen were instructed to complete a supplemental discard form for every fishing trip that they made. If they did not have any discards for the trip, they were instructed to complete a discard form and write “no discards” on the form. It is very important that fishermen understand the need to report for every trip, even when they did not discard any fish. If they did not fish during a calendar month and submitted a no-fishing form, then they did not have to submit a discard form.

### **III. Results**

There were 455 vessels that were selected to report their discards or interactions with marine mammals or sea birds during the first survey year, August 2001 through July 2002. Out of these vessels, logbooks with fishing information were received from 377 vessels for 8,212 trips. Of those vessels, 185 submitted discard information for 3,351 trips, and 192 of them did not submit any discard information. Of the remaining 108 vessels (455 - 377), 68 of them submitted a no-fishing report for each of the 12 months and 32 of them submitted no-fishing reports for some of the twelve months, but not all of them. For the second survey year, August 2002 through July 2003, there were 381 vessels, out of the 445 selected, that submitted logbooks and reported fishing activity for 9,539 trips. Of those 381 vessels, 237 submitted discard information for 6,006 trips. There were 147 vessels that submitted logbooks that did not contain any discard information.

For the 3,351 trips where discards forms were submitted during the first survey year, fishermen reported discarding fish for 2,092 trips and no discards were reported for 1,259 trips. For the 2,092 trips where discards were reported, 1,051 of the discards were reported for the South Atlantic and 1,041 were reported for the Gulf of Mexico. For the trips (1,259) where no discards were reported, 1,031 were in the South Atlantic and 228 were in the Gulf of Mexico. For the 6,006 trips where discards forms were submitted during the second survey year, fishermen reported discarding fish for 3,590 trips and no discards were reported for 2,416 trips. For the 3,590 trips where discards were reported, 1,950 of them were in the South Atlantic and 1,640 were in the Gulf of Mexico. For the 2,416 trips where no discards were reported, 2,022 were in the South Atlantic and 394 were in the Gulf of Mexico.

From the 3,351 trips where discards were reported in the first survey year, a total of 244,959 discards were reported. In the South Atlantic, fishermen reported 126,095 discards and in the Gulf of Mexico fishermen reported 118,864 discards. From the 6,006 trips where discards were reported in the second survey year, a total of 359,458 discards were reported. In the South Atlantic, fishermen reported 129,643 discards and in the Gulf of Mexico, fishermen reported 229,815 discards. The total numbers of discards by species and gear for the two survey years are presented in Appendix I, Tables I-1 and I-2 for the Gulf of Mexico and South Atlantic regions, respectively. For the trips with discards, the numbers of trips and the average number of discards per trip are presented by species and gear for the two survey years combined in Appendix II, Table II-1 and II-2 for the Gulf of Mexico and South Atlantic regions, respectively.

In addition to the numbers of discards, fishermen are asked to record their best estimate of the condition of the fish (animals) when they were released. The fishermen are also asked to specify a reason why the fish (animals) were discarded. For descriptive purposes, the top species for which discards were reported in the South Atlantic and Gulf of Mexico are used to provide the respective percentages for the condition of the fish released and the reason for the discard.

The fishermen are given 6 options for the condition of released fish. These options are; all animals are dead, majority of the animals are dead, all animals are alive when released, majority of animals are alive, the fish are kept but not sold, and the condition of the animals is

unknown. The percentages for the numbers of animals for the top species by the 6 options are provided for the South Atlantic and Gulf of Mexico in Tables 2 and 3, respectively. The percentages for the three reasons why fish were discarded for the top species are presented for trips reported in the South Atlantic and Gulf of Mexico in Tables 4 and 5, respectively.

Table 2. The numbers of discards and the percent for each of the 6 condition categories for the top species with discards in the South Atlantic.

Species Name	All discards dead		Majority dead		All discards alive		Majority alive	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
SEA BASS, BLACK	60	0.1	105	0.1	85,120	94.2	5,035	5.6
SNAPPER, VERMILION	427	1.3	4,637	14.5	11,466	35.7	15,096	47.0
PORGY, RED, UNC	220	0.7	7,805	24.8	8,991	28.5	13,717	43.5
MENHADEN	423	2.0	17,744	84.0		0.0	2,751	13.0
SHARK, DOGFISH, SPINY		0.0	120	1.5	631	7.7	7,465	90.9
SEA BASS, ROCK		0.0		0.0	6,104	77.1	1,642	20.8
SNAPPER, YELLOWTAIL	293	4.7	120	1.9	3,390	53.9	2,231	35.5
SCAMP	39	0.8	450	8.9	2,554	50.6	1,989	39.4
GRUNT, WHITE		0.0		0.0	2,244	53.5	1,756	41.9
SNAPPER, RED	36	0.9	156	3.8	1,726	41.6	2,230	53.7
FINFISHES, UNC, FOOD	1	0.0		0.0		0.0		0.0
GROUPERS		0.0	3,100	82.7	295	7.9	349	9.3
SHARK, DOGFISH, UNC	133	5.2	101	4.0	1,178	46.4	1,128	44.4
GRUNTS		0.0		0.0	2,113	87.6	232	9.6
GROUPE, GAG	13	0.6	33	1.4	1,588	66.9	697	29.4
HIND, SPECKLED	60	3.0	646	31.9	361	17.8	925	45.7

Table 2. Continued

Species Name	Kept not sold		Unknown		Unreported		Total
	Number	Percent	Number	Percent	Number	Percent	
SEA BASS, BLACK	77	0.1	15	0.0		0.0	90,412
SNAPPER, VERMILION	465	1.5		0.0		0.0	32,091
PORGY, RED, UNC	740	2.4		0.0	30	0.1	31,503
MENHADEN		0.0	204	1.0		0.0	21,122
SHARK, DOGFISH, SPINY		0.0		0.0		0.0	8,216
SEA BASS, ROCK	9	0.1		0.0	160	2.0	7,915
SNAPPER, YELLOWTAIL	183	2.9	37	0.6	37	0.6	6,291
SCAMP	11	0.2		0.0		0.0	5,043
GRUNT, WHITE	16	0.4		0.0	180	4.3	4,196
SNAPPER, RED	2	0.1		0.0		0.0	4,150
FINFISHES, UNC, FOOD	4,030	100.0		0.0		0.0	4,031
GROUPERS	1	0.0		0.0	5	0.1	3,750
SHARK, DOGFISH, UNC		0.0		0.0		0.0	2,540
GRUNTS	67	2.8		0.0		0.0	2,412
GROUPE, GAG	39	1.6		0.0	3	0.1	2,373
HIND, SPECKLED	13	0.6	14	0.7	6	0.3	2,025

Table 3. The numbers of discards and the percent for each of the 6 condition categories for the top species with discards in the Gulf of Mexico.

Species Name	All discards dead		Majority dead		All discards alive		Majority alive	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
SNAPPER,RED	13,501	9.6	46,681	33.2	11,353	8.1	47,380	33.7
GROUPE,RED	620	0.7	5,500	5.8	36,863	38.6	48,780	51.0
SNAPPER,VERMILION	290	1.9	3,325	21.4	4,552	29.4	6,470	41.7
GROUPE,GAG	27	0.2	44	0.3	9,979	70.1	3,347	23.5
GROUPERS	2	0.0	17	0.1	1,145	8.7	11,684	88.7
SNAPPERS,UNC	113	1.4	5,515	67.4	802	9.8	1,668	20.4
SNAPPER,MANGROVE	1,545	22.2	4,740	68.2	447	6.4	170	2.4
TRIGGERFISHES		0.0		0.0	3,537	72.0	1,255	25.6
AMBERJACK,GREATER	99	2.1	169	3.5	1,208	25.2	2,216	46.2
SNAPPER,LANE	8	0.2		0.0	3,729	80.8	745	16.1
SHARK,UNC	2	0.0	65	1.4	1,459	31.8	3,053	66.6
AMBERJACK	190	4.9	710	18.2	1,388	35.6	1,554	39.8
SNAPPER,YELLOWTAIL	127	3.9	65	2.0	1,894	58.8	931	28.9
DRUM,RED	973	41.6	705	30.1	457	19.5	202	8.6
SHARK,BLACKTIP	106	4.9	168	7.7	1,649	75.5	257	11.8
GROUPE,BLACK	2	0.1	139	6.4	1,142	52.4	859	39.4

Table 3. Continued

Species Name	Kept not sold		Unknown		Unreported		Total
	Number	Percent	Number	Percent	Number	Percent	
SNAPPER,RED	51	0.0	21,846	15.5		0.0	140,812
GROUPE,RED	66	0.1	3,738	3.9	11	0.0	95,578
SNAPPER,VERMILION	772	5.0		0.0	103	0.7	15,512
GROUPE,GAG	43	0.3	791	5.6		0.0	14,231
GROUPERS	7	0.1	20	0.2	300	2.3	13,175
SNAPPERS,UNC	35	0.4	44	0.5	4	0.1	8,181
SNAPPER,MANGROVE	18	0.3	5	0.1	28	0.4	6,953
TRIGGERFISHES	30	0.6		0.0	88	1.8	4,910
AMBERJACK,GREATER	505	10.5	603	12.6		0.0	4,800
SNAPPER,LANE	2	0.0		0.0	134	2.9	4,618
SHARK,UNC	6	0.1	2	0.0		0.0	4,587
AMBERJACK	5	0.1	55	1.4	2	0.1	3,904
SNAPPER,YELLOWTAIL	121	3.8		0.0	86	2.7	3,224
DRUM,RED	2	0.1		0.0		0.0	2,339
SHARK,BLACKTIP		0.0		0.0	3	0.1	2,183
GROUPE,BLACK	24	1.1	11	0.5	2	0.1	2,179

Table 4. The numbers of discards and percent for each of the 3 reasons for the top species with discards in the South Atlantic.

Species Name	Regulatory discards		Market conditions		Un-reported		Total discards
	Number	Percent	Number	Percent	Number	Percent	
SEA BASSE,ATLANTIC,BLACK,UNC	90,247	99.8	119	0.1	46	0.1	90,412
SNAPPER,VERMILION	31,710	98.8	135	0.4	246	0.8	32,091
PORGY,RED,UNC	31,094	98.7	197	0.6	212	0.7	31,503
MENHADEN	0	0.0	19,022	90.1	2,100	9.9	21,122
SHARK,DOGFISH,SPINY	8,057	98.1	157	1.9	2	0.0	8,216
SEA BASS,ROCK	7,221	91.2	77	1.0	617	7.8	7,915
SNAPPER,YELLOWTAIL	5,926	94.2	72	1.1	293	4.7	6,291
SCAMP	4,962	98.4	44	0.9	37	0.7	5,043
GRUNT,WHITE	1,803	43.0	1,859	44.3	534	12.7	4,196
SNAPPER,RED	4,148	100.0	2	0.1	0	0.0	4,150
FINFISHES,UNC,BAIT,ANIMAL FOOD	100	2.5	3,730	92.5	201	5.0	4,031
GROUPERS	3,737	99.7	1	0.0	12	0.3	3,750
SHARK,DOGFISH,UNC	2,426	95.5	114	4.5	0	0.0	2,540
GRUNTS	1,860	77.1	538	22.3	14	0.6	2,412
GROUPEL,GAG	2,341	98.7	14	0.6	18	0.8	2,373
HIND,SPECKLED	2,012	99.4	0	0.0	13	0.6	2,025

Table 5. The numbers of discards and percent for each of the 3 reasons for the top species with discards in the Gulf of Mexico.

Species Name	Regulatory discards		Market conditions		Un-reported		Total discards
	Number	Percent	Number	Percent	Number	Percent	
SNAPPER,RED	139,333	99.0	286	0.2	1,193	0.9	140,812
GROUPEL,RED	93,368	97.7	283	0.3	1,927	2.0	95,578
SNAPPER,VERMILION	14,742	95.0	2	0.0	768	5.0	15,512
GROUPEL,GAG	13,826	97.2	5	0.0	400	2.8	14,231
GROUPERS	12,864	97.6	0	0.0	311	2.4	13,175
SNAPPERS,UNC	8,146	99.6	31	0.4	4	0.1	8,181
SNAPPER,MANGROVE (Duplicate of 3760)	6,914	99.4	13	0.2	26	0.4	6,953
TRIGGERFISHES	4,650	94.7	152	3.1	108	2.2	4,910
AMBERJACK,GREATER	3,291	68.6	9	0.2	1,500	31.3	4,800
SNAPPER,LANE	4,475	96.9	2	0.0	141	3.1	4,618
SHARK,UNC	3,852	84.0	691	15.1	44	1.0	4,587
AMBERJACK	3,900	99.9	1	0.0	3	0.1	3,904
SNAPPER,YELLOWTAIL	2,949	91.5	190	5.9	85	2.6	3,224
DRUM,RED	2,339	100.0	0	0.0	0	0.0	2,339
SHARK,BLACKTIP	2,156	98.8	25	1.2	2	0.1	2,183
GROUPEL,BLACK	2,159	99.1	8	0.4	12	0.6	2,179

## Appendix I

Numbers of discards by gear for the Gulf of Mexico and South Atlantic



Table I-1. Numbers of discards by species and gear for vessels selected to report during each of the two survey years from the South Atlantic.

Species Name	Handlines*		Bottom longlines		Traps/Pots		Trolling		Gill Nets		Dive gear		Total all gear	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
AMBERJACK	37	171							32				37	203
AMBERJACK, GREATER	409	1,044	7						32				416	1,076
BALLYHOO	1,035	420											1,035	420
BARRACUDA	71	164							24		2		73	188
BLACK BELLED ROSEFISH	47	2											47	2
BLUE RUNNER	49	145						1					49	146
BLUEFISH		3					110				103		110	106
BONITO, ATLANTIC	24	341					13	7					37	348
CHUBS									67	66			67	66
COBIA	54	33					2	3		10			56	46
CREVALLE	15	51						1					15	52
DOLPHINFISH	207	217	3				245	58					455	275
DRUM, RED	1	66									9		1	75
EEL, MORAYS	2	39						11					2	50
FILEFISH (dup 4560 recode)		1			240								240	1
FINFISHES, UNC FOR FOOD	2	49						10			159		2	218
FINFISHES, UNC, BAIT, ANIMAL FOOD	2,010	2,021											2,010	2,021
GROUPE, BLACK	252	1,362				3	27	5					279	1,370
GROUPE, GAG	958	1,221			101	93							1,059	1,314
GROUPE, NASSAU	1	9											1	9
GROUPE, RED	331	471			1	57		7			3		335	535
GROUPE, WARSAW	161	46											161	46
GROUPE, S	584	3,166											584	3,166
GRUNT, BLUESTRIPED	120					1							120	1
GRUNT, TOMIATE	250	1,175											250	1,175
GRUNT, WHITE	9	596				3,591							9	4,187
GRUNTS	257	690				1,465							257	2,155
HIND, SPECKLED	821	1,204											821	1,204
HOGFISH	5	3											5	3
JEW FISH	4	5											4	5
KING MACKEREL and CERO	428	412					48	791					476	1,229
MENHADEN									204	20,918			204	20,918
PARROTFISH	12	29											12	29
PINFISH, SPOTTAIL		13			75								75	13
PORGY, RED, UNC	15,907	14,844	57		280	361	30	2	22				16,296	15,207
RAINBOW RUNNER	4	36											4	36
REMORA	6	107						11					6	118
RUDDERFISH (SEA CHUBS)		102							127				127	102
SAILFISH	7						2	1					9	1
SCAMP	2,836	2,164			19	10	14						2,869	2,174
SCUP		1			20								20	1
SCUPS OR PORGIES, UNC	18	7			20	450			104				142	457
SEA BASS, ROCK	763	1,061			2,200	3,891							2,963	4,952
SEA BASSE, ATLANTIC, BLACK, UNC	1,874	1,672			65,830	20,689		325	22				67,726	22,686
SEA CATFISH									75	26			75	26
SEA GULL	3	3						3					3	6
SEA TROUT, GRAY, UNC									10	7			10	7
SHARK, ATLANTIC SHARPNOSE	17	1,396				4		40		31			17	1,471
SHARK, BLACKTIP	1	297					1		5	13			7	310
SHARK, BONNETHEAD		12							50				50	12
SHARK, DOGFISH, SMOOTH			22							1,071			22	1,071
SHARK, DOGFISH, SPINY	29	121	195						0	7,871			224	7,992
SHARK, DOGFISH, UNC	936	4								1,597		3	939	1,601
SHARK, DUSKY	2	1								13			2	14
SHARK, HAMMERHEAD	7	2	15						1	3			23	5
SHARK, NURSE	1	79											1	79
SHARK, SANDBAR	168	1	10				10			5			188	6
SHARK, TIGER	58	5	1										59	5
SHARK, UNC	262	554				14		37		325			262	930
SNAPPER, LANE	55	12											55	12
SNAPPER, MANGROVE (Duplicate of 3760)	1,065	539										5	1,070	539
SNAPPER, MUTTON	177	57						1	3				180	58
SNAPPER, RED	2,478	1,645			6	1	11					9	2,504	1,646
SNAPPER, SILK	156	82											156	82
SNAPPER, VERMILION	13,793	17,895	51		145	177						30	14,019	18,072
SNAPPER, YELLOWTAIL	2,277	4,005						9					2,277	4,014
SPANISH MACKEREL	28	7								190			28	197
TILEFISH, SAND	1	138											1	138
TOADFISHES	4	3			78								82	3
TRIGGERFISH, GRAY	69	493			300	311							369	804
TRIGGERFISHES	79	270			120	48		1					199	319
TUNA, ALBACORE	10	1											10	1
TUNA, LITTLE (TUNNY)	61	432					261	133					322	565
TUNA, YELLOWFIN	3	35					5	101					8	136
TURTLE, LOGGERHEAD (SEA)	1	2											1	2

Table I-1. Continued

Species Name	Handlines*		Bottom longlines		Traps/Pots		Trolling		Gill Nets		Dive gear		Total all gear	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
TURTLES,UNC	1	2											1	2
WAHOO		1						4					4	1
AFRICAN POMPANO	1												1	0
AMBERJACK,LESSER	12		48				422						482	0
BANDED RUDDERFISH	168												168	0
BIGEYE	10												10	0
BIGEYE SCAD	200												200	0
BONITO,UNC	197						20						217	0
EEL,CONGER									1				1	0
GROUPE,MISTY	1												1	0
GROUPE,SNOWY	12												12	0
GROUPE,YELLOWFIN	1												1	0
JACKS,UNC.	21		6										27	0
LONGTAIL BASS			1										1	0
MACKEREL,UNC. (Scomber)	2												2	0
MARGATE	1												1	0
MARLIN,WHITE			1										1	0
MULLETS	50												50	0
SHARK,BIGEYE THRESHER			1										1	0
SHARK,BIGNOSE			1										1	0
SHARK,BLUE	2		15										17	0
SHARK,LEMON	1												1	0
SHARK,MAKO UNC	1												1	0
SHARK,NIGHT	2		7										9	0
SHARK,SCALLOPED HAMMERHEAD			2										2	0
SHARK,SIXGILL BIGEYE	4												4	0
SHARK,SMOOTH HAMMERHEAD			3										3	0
SNAPPER,QUEEN			2										2	0
SNAPPERS,UNC	586												586	0
TILEFISH					125								125	0
TILEFISH,BLUELINE	14												14	0
TILEFISH,UNCLASSIFIED	2												2	0
TRIGGERFISH,OCEAN	20												20	0
TUNA,BLACKFIN							2						2	0
TURTLES,LEATHERBACK			1										1	0
ANGELFISHES		6											6	0
CERO		16							1				0	17
CRAB,UNC											264		0	264
CRABS,BLUE,HARD											30		0	30
CROAKER,ATLANTIC,UNC											5		0	5
DRUM,BLACK											50		0	50
DRUMS											3		0	3
FLOUNDER,ATLANTIC & GULF,UNC											11		0	11
GRUNT,FRENCH		6											0	6
HIND,RED		5											0	5
HIND,ROCK		40											0	40
HORSESHOE CRAB											96		0	96
JACK,ALMACO	32												0	32
JACK,BAR	4												0	4
NEEDLEFISH,ATLANTIC		29											0	29
PILOTFISH								1					0	1
POMPANO											4		0	4
PORGY,JOLTHEAD		1											0	1
RAYS,UNC											108		0	108
SAND PERCH											224		0	224
SCADS,ROUGH		200											0	200
SEA ROBINS											153		0	153
SHARK,ATLANTIC ANGEL											22		0	22
SHARK,BLACKNOSE	22												0	22
SHARK,CARIBBEAN SHARPNOSE	3										1		0	4
SHARK,FINETOOTH		10											0	10
SHARK,SAND TIGER	54										5		0	59
SHARK,SILKY	1												0	1
SHARK,SPINNER											20		0	20
SKATES											961		0	961
SNAPPER,BLACK	1												0	1
SNAPPER,GRAY AT (MANGROVE)		11											0	11
SPADEFISH											65		0	65
SQUIRRELFISHES		5											0	5
STINGRAYS		1									140		0	141
STURGEONS,UNC											2		0	2
SURGEONFISHES		8											0	8
TARPON		2											0	2
TAUTOG											2		0	2
TUNA,BLUEFIN,UNC								1					0	1

\* Handline gear includes bandit rig gear.

Table I-2. Numbers of discards by species and gear for vessels selected to report during each of the two survey years from the Gulf of Mexico.

Species Name	Handlines*		Bottom longlines		Traps/Pots		Trolling		Gill Net	Dive gear		Total all gear	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 1	Year 2	Year 1	Year 2
AMBERJACK	806	2858	22	33		2	14	169				842	3062
AMBERJACK,GREATER	2644	2098		41			5	12				2649	2151
AMBERJACK,LESSER	8	123										8	123
BANDED RUDDERFISH	51			12			1					52	12
BARRACUDA	42	75	1	52				4				43	131
BLUE RUNNER	74	205				140		4				74	349
BLUEFISH	10	76						17				10	93
BONITO,ATLANTIC	3	27	3	8			92	94				98	129
COBIA	100	103	4					8			2	104	113
CREVALLE	28	27					124	36				152	63
DOLPHINFISH	86	10	2									88	10
DRUM,RED	501	1619		158				30			31	501	1838
EEL,MORAYS		4	6	125								6	129
EELS,UNC	1		24	815		52						25	867
FINFISHES,UNC FOR FOOD	10	516	185	262								195	778
GRAYSBY	4	10										4	10
GROUPE,BLACK	848	1112	20	120	15	59	2			3		888	1291
GROUPE,GAG	6566	7191	58		19	117		137		16	127	6659	7572
GROUPE,RED	24034	33105	8049	15256	950	13971	40			28	145	33101	62477
GROUPE,SNOWY	22					25						22	25
GROUPE,S	139	236	82		12030	688						12251	924
GRUNT,FRENCH		2			25							25	2
GRUNT,WHITE		170			149	7						149	177
GRUNTS	331	290			625	349						956	639
HIND,SPECKLED	2	11										2	11
JACKS,UNC.	29	13					7	49				36	62
JEWFISH	14	15	5	467				4				19	486
KING MACKEREL and CERO	143	159					43	206				186	365
PORGY,RED,UNC	99	157	22		669	69						790	226
PUFFERS	24					252						24	252
REMORA	9	88	43									52	88
RUDDERFISH (SEA CHUBS)	21	64	5									26	64
SCAMP	261	252		3		135						261	390
SCUPS OR PORGIES,UNC	6	11			1078	144						1084	155
SEA BASS,BLACK	100	88			59	609						159	697
SEA GULL	1	5										1	5
SEA TROUT,WHITE	17	2										17	2
SHARK,ATLANTIC SHARPNOSE	6	400		18								6	418
SHARK,BLACKNOSE			120	7								120	7
SHARK,BLACKTIP	672	1423	15	23			6	44				693	1490
SHARK,BULL		9	2	10								2	19
SHARK,DOGFISH,SPINY			135	20								135	20
SHARK,DOGFISH,UNC		45	40	241								40	286
SHARK,HAMMERHEAD	5	6										5	6
SHARK,NURSE	12	309	10	83				63				22	455
SHARK,SANDBAR	20	8	24	40								44	48
SHARK,TIGER	1	785	1	17				12				2	814
SHARK,UNC	738	782	1456	1553			13	45				2207	2380
SKATES			17	4								17	4
SNAPPER,BLACK	6	7	3									9	7
SNAPPER,LANE	241	20			2829	1528						3070	1548
SNAPPER,MANGROVE	4534	2412			4	3						4538	2415
SNAPPER,MUTTON	35	30										35	30
SNAPPER,RED	29900	109244	984	628	3	20	21				12	30908	109904
SNAPPER,SILK	6					450						6	450
SNAPPER,VERMILION	2337	8277		215	4187	496						6524	8988
SNAPPER,YELLOWTAIL	977	2237				10						977	2247
SNAPPERS,UNC	825	6812			544							1369	6812
SPANISH MACKEREL	8	186						73				8	259
SQUIRRELFISHES			2			230						2	230
STINGRAYS			1	2								1	2
TOADFISHES			33	31		27						33	58
TRIGGERFISH,GRAY	111	58			509	353						620	411
TRIGGERFISHES	130	174			4375	231						4505	405
TUNA,LITTLE (TUNNY)	9	130	73	57			121	695				203	882
TURTLE,LOGGERHEAD(SEA)	1			1								1	1
TURTLES,UNC	10		2	1								12	1
BLACK BELLIED ROSEFISH	6											6	0
BONITO,UNC	3		17				148					168	0
EEL,CONGER			25									25	0
FLOUNDER,ATLANTIC & GULF,UT	1											1	0
GROUPE,WARSAW	2											2	0
GROUPE,YELLOWFIN	4											4	0
JACK,ALMACO	87											87	0
MACKEREL,UNC. (Scomber)	5											5	0

Table I-2. Continued

Species Name	Handlines*		Bottom longlines		Traps/Pots		Trolling		Gill Net	Dive gear		Total all gear	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 1	Year 2	Year 1	Year 2
MARLIN,UNC			5									5	0
OCTOPUS					2							2	0
PINFISH,SPOTTAIL					50							50	0
PORGY,KNOBBED					150							150	0
SCORPIONFISH-THORNYHEADS	8											8	0
SHARK,LEMON	11									1		12	0
SHARK,REEF	19											19	0
SHARK,SIXGILL			600									600	0
SPOT	40				75							115	0
SWORDFISH			2									2	0
TUNA,BLACKFIN							1					1	0
TURTLE,GREEN(SEA)			1									1	0
CHUBS		4										0	4
CRIMSON ROVER		2										0	2
FILEFISH		2										0	2
GROUPE,MISTY				4								0	4
GROUPE,NASSAU		1										0	1
GRUNT,BLUESTRIPE		22				1324						0	1346
HAKE,ATLANTIC,				122								0	122
HERRINGS,UNC				1								0	1
HOGFISH	6											0	6
JACK,BAR	4											0	4
MARGATE						72						0	72
PARROTFISH	3											0	3
PINFISH		280										0	280
PORGY,JOLTHEAD						110						0	110
PORGY,WHITEBONE						6						0	6
RAYS,UNC				2								0	2
SAILFISH		2										0	2
SEA BASS,ROCK		150				142						0	292
SEA CATFISH		60										0	60
SHARK,CARIBBEAN SHARPNOSE		10										0	10
SHARK,DOGFISH,SMOOTH				23								0	23
SHARK,SAND TIGER		3		100								0	103
SHARK,SILKY				3								0	3
SNAPPER,DOG						30						0	30
SNAPPER,GRAY AT		20										0	20
SPADEFISH		7										0	7
TILEFISH,BLUELINE				861								0	861
TUNA,YELLOWFIN		1		1								0	2

\* Handline gear includes bandit rig gear.

## Appendix II

The number of trips and average number of discards per trip for Gulf of Mexico and South Atlantic

Table II-1. Numbers of trip and reported discards per trip for the vessels selected to report in the South Atlantic region for the period, 8/1/2001 - 7/31/2003.

Species Name	Handlines*		Bottom Longline		Traps/Pots		Trolling		Gill Nets		Dive Gear	
	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip
AFRICAN POMPANO	1	1.0										
AMBERJACK	56	3.7					14	2.3				
AMBERJACK,GREATER	203	7.2	3	2.3			17	1.9				
AMBERJACK,LESSER	3	4.0	3	16.0			2	211.0				
ANGELFISHES	5	1.2										
BALLYHOO	24	60.6										
BANDED RUDDERFISH	9	18.7										
BARRACUDA	76	3.1					18	1.3			1	2.0
BIGEYE	2	5.0										
BIGEYE SCAD	4	50.0										
BLACK BELLIED ROSEFISH	11	4.5										
BLUE RUNNER	40	4.9					1	1.0				
BLUEFISH	1	3.0					1	110.0	16	6.4		
BONITO,ATLANTIC	72	5.1					9	2.2				
BONITO,UNC	21	9.4					7	2.9				
CERO	10	1.6					1	1.0				
CHUBS									21	6.3		
COBIA	47	1.9					5	1.0	6	1.7		
CRAB,UNC									19	13.9		
CRABS,BLUE,HARD									1	30.0		
CREVALLE	15	4.4					1	1.0				
CROAKER,ATLANTIC,UNC									1	5.0		
DOLPHINFISH	42	10.1	1	3.0			44	6.9				
DRUM,BLACK									1	50.0		
DRUM,RED	6	11.2							4	2.3		
DRUMS									1	3.0		
EEL,CONGER									1	1.0		
EEL,MORAYS	14	2.9					3	3.7				
FILEFISH (dup 4560 recode)	1	1.0			8	30.0						
FINFISHES,UNC FOR FOOD	8	6.4					5	2.0	9	17.7		
FINFISHES,UNC,BAIT,ANIMAL FOOD	37	109.0										
FLOUNDER,ATLANTIC & GULF,UNC									3	3.7		
GROUPEL,BLACK	172	9.4			1	3.0	4	8.0				
GROUPEL,GAG	314	6.9			23	8.4						
GROUPEL,MISTY	1	1.0										
GROUPEL,NASSAU	8	1.3										
GROUPEL,RED	196	4.1			9	6.4	5	1.4			1	3.0
GROUPEL,SNOWY	6	2.0										
GROUPEL,WARSAW	30	6.9										
GROUPEL,YELLOWFIN	1	1.0										
GROUPELS	50	75.0										
GRUNT,BLUESTRIPE	6	20.0			1	1.0						
GRUNT,FRENCH	2	3.0										
GRUNT,TOMTATE	17	83.8										
GRUNT,WHITE	26	23.3			22	163.2						
GRUNTS	40	23.7			11	133.2						
HIND,RED	2	2.5										
HIND,ROCK	22	1.8										
HIND,SPECKLED	122	16.6										
HOGFISH	6	1.3										
HORSESHOE CRAB									9	10.7		
JACK,ALMACO	7	4.6										
JACK,BAR	1	4.0										
JACKS,UNC.	3	7.0	1	6.0								
JEWFISH	9	1.0										
KING MACKEREL and CERO	212	4.0					223	3.8	5	5.2		
LONGTAIL BASS			1	1.0								
MACKEREL,UNC. (Scomber)	1	2.0										
MARGATE	1	1.0										
MARLIN,WHITE			1	1.0								
MENHADEN									123	171.7		
MULLETS	1	50.0										
NEEDLEFISH,ATLANTIC	8	3.6										
PARROTFISH	26	1.6										
PILOTFISH							1	1.0				
PINFISH,SPOTTAIL	5	2.6			1	75.0						
POMPANO									1	4.0		
PORGY,JOLTHEAD	1	1.0										
PORGY,RED,UNC	420	73.2	7	8.1	12	53.4	2	16.0	6	3.7		
RAINBOW RUNNER	7	5.7										
RAYS,UNC									11	9.8		
REMORA	44	2.6					9	1.2				
RUDDERFISH (SEA CHUBS)	7	14.6							22	5.8		
SAILFISH	6	1.2					3	1.0				

Table II-1. Continued

Species Name	Handlines*		Bottom Longline		Traps/Pots		Trolling		Gill Nets		Dive Gear	
	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip
SAND PERCH									5	44.8		
SCADS,ROUGH	2	100.0										
SCAMP	379	13.2			6	4.8	1	14.0				
SCUP	1	1.0			1	20.0						
SCUPS OR PORGIES,UNC	5	5.0			6	78.3			18	5.8		
SEA BASS,ROCK	38	48.0			35	174.0						
SEA BASSE,ATLANTIC,BLACK,UNC	138	25.7			122	709.2	1	325.0	2	11.0		
SEA CATFISH									16	6.3		
SEA GULL	4	1.5					1	3.0				
SEA ROBINS									14	10.9		
SEA TROUT,GRAY,UNC									3	5.7		
SHARK,ATLANTIC ANGEL									2	11.0		
SHARK,ATLANTIC SHARPNOSE	36	39.3			1	4.0	5	8.0	12	2.6		
SHARK,BIGEYE THRESHER			1	1.0								
SHARK,BIGNOSE			1	1.0								
SHARK,BLACKNOSE	2	11.0										
SHARK,BLACKTIP	40	7.5					1	1.0	12	1.5		
SHARK,BLUE	2	1.0	1	15.0								
SHARK,BONNETHEAD	1	12.0							1	50.0		
SHARK,CARIBBEAN SHARPNOSE	1	3.0							1	1.0		
SHARK,DOGFISH,SMOOTH			1	22.0					24	44.6		
SHARK,DOGFISH,SPINY	19	7.9	2	97.5					61	129.0		
SHARK,DOGFISH,UNC	21	44.8							22	72.6	1	3.0
SHARK,DUSKY	2	1.5							4	3.3		
SHARK,FINETOOTH	1	10.0										
SHARK,HAMMERHEAD	3	3.0	2	7.5					4	1.0		
SHARK,LEMON	1	1.0										
SHARK,MAKO UNC	1	1.0										
SHARK,NIGHT	1	2.0	2	3.5								
SHARK,NURSE	31	2.6										
SHARK,SAND TIGER	9	6.0							4	1.3		
SHARK,SANDBAR	16	10.6	4	2.5			3	3.3	1	5.0		
SHARK,SCALLOPED HAMMERHEAD			1	2.0								
SHARK,SILKY	1	1.0										
SHARK,SIXGILL BIGEYE	4	1.0										
SHARK,SMOOTH HAMMERHEAD			1	3.0								
SHARK,SPINNER									3	6.7		
SHARK,TIGER	10	6.3	1	1.0								
SHARK,UNC	57	14.3			2	7.0	27	1.4	30	10.8		
SKATES									28	34.3		
SNAPPER,BLACK	1	1.0										
SNAPPER,GRAY AT (MANGROVE)	3	3.7										
SNAPPER,LANE	6	11.2										
SNAPPER,MANGROVE (Duplicate of 3760)	142	11.3									1	5.0
SNAPPER,MUTTON	66	3.6					1	1.0	1	3.0		
SNAPPER,QUEEN			1	2.0								
SNAPPER,RED	182	22.7			2	3.5	1	11.0			2	4.5
SNAPPER,SILK	22	10.8										
SNAPPER,VERMILION	387	81.9	6	8.5	10	32.2					1	30.0
SNAPPER,YELLOWTAIL	600	10.5					3	3.0				
SNAPPERS,UNC	24	24.4										
SPADEFISH									3	21.7		
SPANISH MACKEREL	11	3.2							21	9.1		
SQUIRRELFISHES	2	2.5										
STINGRAYS	1	1.0							10	14.0		
STURGEONS,UNC									2	1.0		
SURGEONFISHES	3	2.7										
TARPON	2	1.0										
TAUTOG									1	2.0		
TILEFISH					1	125.0						
TILEFISH,BLUELINE	6	2.3										
TILEFISH,SAND	17	8.2										
TILEFISH,UNCLASSIFIED	2	1.0										
TOADFISHES	3	2.3			5	15.6						
TRIGGERFISH,GRAY	54	10.4			13	47.0						
TRIGGERFISH,OCEAN	4	5.0										
TRIGGERFISHES	30	11.6			5	33.6	1	1.0				
TUNA,ALBACORE	2	5.5										
TUNA,BLACKFIN							1	2.0				
TUNA,BLUEFIN,UNC							1	1.0				
TUNA,LITTLE (TUNNY)	95	5.2					61	6.5				
TUNA,YELLOWFIN	5	7.6					9	11.8				
TURTLE,LOGGERHEAD(SEA)	3	1.0										
TURTLES,LEATHERBACK			1	1.0								
TURTLES,UNC	3	1.0										
WAHOO	1	1.0					3	1.3				

\* Handlines includes bandit rigs.

Table II-2. Numbers of trip and reported discards per trip for the vessels selected to report in the Gulf of Mexico region for the period, 8/1/2001 - 7/31/2003.

Species Name	Handlines*		Bottom Longline		Traps/Pots		Trolling		Gill Nets		Dive Gear	
	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip
AMBERJACK	258	14.2	9	6.1	2	1.0	5	36.6				
AMBERJACK, GREATER	205	23.1	5	8.2			5	3.4				
AMBERJACK, LESSER	11	11.9										
BANDED RUDDERFISH	2	25.5	1	12.0			1	1.0				
BARRACUDA	29	4.0	8	6.6			3	1.3				
BLACK BELLED ROSEFISH	1	6.0										
BLUE RUNNER	14	19.9			4	35.0	2	2.0				
BLUEFISH	9	9.6					1	17.0				
BONITO, ATLANTIC	11	2.7	3	3.7			16	11.6				
BONITO, UNC	2	1.5	3	5.7			11	13.5				
CHUBS	3	1.3										
COBIA	72	2.8	1	4.0			5	1.6			1	2.0
CREVALLE	12	4.6					29	5.5				
CRIMSON ROVER	1	2.0										
DOLPHINFISH	8	12.0	1	2.0								
DRUM, RED	56	37.9	2	79.0			6	5.0			1	31.0
EEL, CONGER	1	25.0	1	25.0								
EEL, MORAYS	3	1.3	15	8.7								
EELS, UNC	1	1.0	20	42.0	4	13.0						
FILEFISH (dup 4560 recode)	1	2.0										
FINFISHES, UNC FOR FOOD	15	35.1	21	21.3								
FLOUNDER, ATLANTIC & GULF, UNC	1	1.0										
GRAYSBY	3	4.7										
GROUPEL, BLACK	237	8.3	19	7.4	7	10.6	2	1.0			1	3.0
GROUPEL, GAG	534	25.8	10	5.8	7	19.4	2	68.5			6	23.8
GROUPEL, MISTY			1	4.0								
GROUPEL, NASSAU	1	1.0										
GROUPEL, RED	1098	52.0	121	192.6	26	573.9	2	20.0			8	21.6
GROUPEL, SNOWY	4	5.5			2	12.5						
GROUPEL, WARSAW	1	2.0										
GROUPEL, YELLOWFIN	2	2.0										
GROUPERS	34	11.0	6	13.7	53	240.0						
GRUNT, BLUESTRIPED	3	7.3			9	147.1						
GRUNT, FRENCH	1	2.0			1	25.0						
GRUNT, WHITE	16	10.6			4	39.0						
GRUNTS	49	12.7			10	97.4						
HAKE, ATLANTIC, RED & WHITE			3	40.7								
HERRINGS, UNC			1	1.0								
HIND, SPECKLED	5	2.6										
HOGFISH	5	1.2										
JACK, ALMACO	2	43.5										
JACK, BAR	1	4.0										
JACKS, UNC.	7	6.0					8	7.0				
JEWFISH	20	1.5	18	26.2			2	2.0				
KING MACKEREL and CERO	66	4.6					30	8.3				
MACKEREL, UNC. (Scomber)	2	2.5										
MARGATE					2	36.0						
MARLIN, UNC			2	2.5								
OCTOPUS					1	2.0						
PARROTFISH	2	1.5										
PINFISH	1	280.0										
PINFISH, SPOTTAIL					1	50.0						
PORGY, JOLTHEAD					3	36.7						
PORGY, KNOBBED					2	75.0						
PORGY, RED, UNC	11	23.3	3	7.3	16	46.1						
PORGY, WHITEBONE					1	6.0						
PUFFERS	2	12.0			6	42.0						
RAYS, UNC			1	2.0								
REMORA	37	2.6	12	3.6								
RUDDERFISH (SEA CHUBS)	13	6.5	1	5.0								
SAILFISH	1	2.0										
SCAMP	105	4.9	1	3.0	4	33.8						
SCORPIONFISH-THORNYHEADS	1	8.0										
SCUPS OR PORGIES, UNC	5	3.4			21	58.2						
SEA BASS, ROCK	7	21.4			4	35.5						
SEA BASSE, ATLANTIC, BLACK, UNC	5	37.6			10	66.8						
SEA CATFISH	8	7.5										
SEA GULL	4	1.5										
SEA TROUT, WHITE	3	6.3										
SHARK, ATLANTIC SHARPNOSE	12	33.8	1	18.0								
SHARK, BLACKNOSE			2	63.5								
SHARK, BLACKTIP	58	36.1	5	7.6			10	5.0				
SHARK, BULL	2	4.5	2	6.0								
SHARK, CARIBBEAN SHARPNOSE	1	10.0										



Table II-2. Continued

Species Name	Handlines*		Bottom Longline		Traps/Pots		Trolling		Gill Nets		Dive Gear	
	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip	Number of trips	Discards per trip
SHARK, DOGFISH, SMOOTH			4	5.8								
SHARK, DOGFISH, SPINY			5	31.0								
SHARK, DOGFISH, UNC	2	22.5	5	56.2								
SHARK, HAMMERHEAD	3	3.7										
SHARK, LEMON	9	1.2									1	1.0
SHARK, NURSE	22	14.6	13	7.2			6	10.5				
SHARK, REEF	3	6.3										
SHARK, SAND TIGER	2	1.5	1	100.0								
SHARK, SANDBAR	6	4.7	3	21.3								
SHARK, SILKY			1	3.0								
SHARK, SIXGILL			1	600.0								
SHARK, TIGER	14	56.1	4	4.5			4	3.0				
SHARK, UNC	128	11.9	78	38.6			12	4.8				
SKATES			5	4.2								
SNAPPER, BLACK	4	3.3	1	3.0								
SNAPPER, DOG					1	30.0						
SNAPPER, GRAY AT (MANGROVE)	1	20.0										
SNAPPER, LANE	31	8.4			44	99.0						
SNAPPER, MANGROVE (Duplicate of 3760)	149	46.6			3	2.3						
SNAPPER, MUTTON	18	3.6										
SNAPPER, RED	1115	124.8	58	27.8	2	11.5	5	4.2			1	12.0
SNAPPER, SILK	1	6.0			4	112.5						
SNAPPER, VERMILION	161	65.9	2	107.5	45	104.1						
SNAPPER, YELLOWTAIL	277	11.6			1	10.0						
SNAPPERS, UNC	74	103.2			3	181.3						
SPADEFISH	4	1.8										
SPANISH MACKEREL	13	14.9					8	9.1				
SPOT	1	40.0			2	37.5						
SQUIRRELFISHES			1	2.0	2	115.0						
STINGRAYS			2	1.5								
SWORDFISH			1	2.0								
TILEFISH, BLUELINE			6	143.5								
TOADFISHES			12	5.3	3	9.0						
TRIGGERFISH, GRAY	22	7.7			14	61.6						
TRIGGERFISHES	46	6.6			50	92.1						
TUNA, BLACKFIN							1	1.0				
TUNA, LITTLE (TUNNY)	29	4.8	21	6.2			53	15.4				
TUNA, YELLOWFIN	1	1.0	1	1.0								
TURTLE, GREEN (SEA)			1	1.0								
TURTLE, LOGGERHEAD (SEA)	1	1.0	1	1.0								
TURTLES, UNC	8	1.3	3	1.0								

\* Handlines include bandit rig gear.