

Discard Analysis for the South Atlantic

6/1/07

Table 1. Average annual number of dead discards for the commercial (2002-2005) and recreational sectors (2001-2005).

	Commercial	Recreational
Warsaw Grouper	62	332
Speckled Hind	2,010	2,193
Snowy Grouper	12	1,105
Golden Tilefish	0	623
Yellowedge Grouper	6	0
Misty Grouper	1	0
Blueline Tilefish	5	884
Silk Snapper	89	203
Queen Snapper	2	64
Black Sea Bass	7,542	300,706
Vermilion Snapper	15,328	34,634
Red Porgy	16,735	3,678
Gag	1,320	28,867

Commercial

During 2001 to 2005, approximately 20% of snapper grouper permitted vessels from the Gulf of Mexico and South Atlantic were randomly selected to fill out supplementary logbooks. Data from 2001 are not presented because some values are questionable. During 2002-2005, an average of 61% of the trips in the South Atlantic reported discards. The average number of trips per year during 2002 to 2005 was 16,808.

Since the discard logbook database represents a sample, data were expanded to estimate the number of discard fish in the whole fishery (Table 2). The method for expansion was to (1) estimate the probability of discarding a species; (2) estimate the number of fish discarded per trip; and (3) estimate the number discarded in the whole fishery (total discarded = total trips * discard probability * discard number). During 2002-2005, an average of 50,283 black sea bass were discarded per year. The number of discarded red porgy and vermilion snapper was lower (~40,000). An average of 2,010 speckled hind and 62 warsaw grouper were discarded each year, presumably due to the 1 fish per trip limit. Furthermore, an average of 89 silk snapper were discarded each year, probably due to the 12 inch total length size limit. Snowy grouper, golden tilefish, misty grouper, blueline tilefish, silk snapper, and queen snapper were rarely discarded. Table 3 contains the total discards from 2001-2005 from the 20% of randomly sampled vessels. The estimated percent release mortality is contained in Table 4.

Table 2. Expanded number of discarded Amendment 15 species for the South Atlantic.

YEAR	Warsaw Grouper	Speckled Hind	Snowy Grouper	Golden Tilefish	Yellowedge Grouper	Misty Grouper	Blueline Tilefish	Silk Snapper	Queen Snapper	Black Sea Bass	Vermilion Snapper	Red Porgy	Gag
2002	89	4,179	20	0	0	4	0	333	8	105,820	68,873	76,444	6,497
2003	148	3,019	11	0	0	0	4	0	0	77,453	27,910	33,886	5,416
2004	4	217	0	0	0	0	9	0	0	8,283	16,998	17,613	2,308
2005	5	625	19	0	24	0	9	24	0	9,574	39,494	39,407	3,719
Mean	62	2,010	12	0	6	1	5	89	2	50,283	38,319	41,838	3,301
Est. Release Mortality	100%	100%	100%	100%	100%	100%	100%	100%	100%	15%	40%	40%	40%
Dead Discards Mean/Year	62	2,010	12	0	6	1	5	89	2	7,542	15,328	16,735	1,320

Table 3. The total number of the 50 most commonly discarded species during 2001-2005 for the South Atlantic. Count is number of trips that reported discarding the species. Sum is the reported number discarded. These values are not expanded (approximately 20% vessels were randomly selected to fill out supplementary logbooks). Source: NMFS SEFSC Logbook Program.

Species	Count	Sum
SEA BASS,ATLANTIC,BLACK,UNC	429	94,564
SNAPPER,VERMILION	593	45,388
PORGY,RED,UNC	717	44,706
MENHADEN	164	24,452
SNAPPER,YELLOWTAIL	1131	10,528
SEA BASS,ROCK	111	9,385
SNAPPER,RED	288	9,091
SHARK,DOGFISH,SPINY	86	8,867
SCAMP	588	7,433
GRUNT,WHITE	65	4,478
FINFISHES,UNC,BAIT,ANIMAL FOOD	42	4,251
KING MACKEREL and CERO	583	4,200
GROUPEL,GAG	553	3,902
GROUPERS	62	3,839
SHARK,ATLANTIC SHARPNOSE	136	3,588
GRUNTS	116	2,993
GROUPEL,BLACK	355	2,629
GRUNT,TOMTATE	22	2,628
SHARK,DOGFISH,UNC	47	2,623
GROUPEL,RED	468	2,313
SHARK,UNC	331	2,307
HIND,SPECKLED	173	2,252
AMBERJACK,GREATER	293	1,942
BLUEFISH	44	1,632
SNAPPER,MANGROVE (Duplicate of 3760)	190	1,588
TRIGGERFISH,GRAY	107	1,570
BALLYHOO	31	1,500
SHARK,SANDBAR	78	1,424
TUNA,LITTLE (TUNNY)	221	1,311
SHARK,DOGFISH,SMOOTH	32	1,245
BONITO,ATLANTIC	233	1,066
TRIGGERFISHES	105	1,066
SKATES	38	1,011
SCUPS OR PORGIES,UNC	90	1,003
FINFISHES,UNC FOR FOOD	105	997
BLUE RUNNER	117	868
BARRACUDA	170	837
SHARK,TIGER	28	824
KING MACKEREL	93	811
DOLPHINFISH	135	795

Species	Count	Sum
SHARK,BLACKTIP	110	753
SNAPPERS,UNC	27	697
SPANISH MACKEREL	60	657
AMBERJACK	152	568
PINFISH,SPOTTAIL	36	557
CHUBS	27	493
AMBERJACK,LESSER	8	484
SNAPPER,MUTTON	142	430
BIGEYE SCAD	7	395
RUDDERFISH (SEA CHUBS)	46	351

Table 4. Estimated release mortality for select South Atlantic species.

	Commercial	Recreational	Source
Vermilion Snapper	25%	40%	SEDAR 2
Red Porgy	8%	40%	SEDAR 1
Black Sea Bass	15%	15%	SEDAR 2
Gag	25%	40%	SEDAR 10
Snowy Grouper	100%	100%	SEDAR 4
Golden Tilefish	100%	100%	SEDAR 4
Blueline Tilefish	100%	100%	
Misty Grouper	100%	100%	
Yellowedge Grouper	100%	100%	
Yellowmouth Grouper	100%	100%	
Silk Snapper	100%	100%	
Queen Snapper	100%	100%	
Warsaw Grouper	100%	100%	
Speckled Hind	100%	100%	

Recreational

For the recreational fishery, estimates of the number of recreational discards are available from MRFSS (Table 5). There are no estimates from the headboat survey. The MRFSS system classifies recreational catch into three categories:

- Type A - Fishes that were caught, landed whole, and available for identification and enumeration by the interviewers.
- Type B - Fishes that were caught but were either not kept or not available for identification.
 - Type B1 - Fishes that were caught and filleted, released dead, given away, or disposed of in some way other than Types A or B2.
 - Type B2 - Fishes that were caught and released alive.

Table 5. From 2001-2005, the estimated number (A+B1+B2) of fish caught from MRFSS interviews, estimated number of fish released alive (B2), percent released, estimate number of dead discards. Source: MRFSS Web Site; 6/1/07.

Species	Est Total (01-05)	Est Released (01-05)	% Released	Est. Release Mortality	Est Dead Discards	Est Dead Discards/Year
Snowy Grouper	44,043	5,693	13%	100%	5,693	1,139
Golden Tilefish	97,690	3,124	3%	100%	3,108	622
Speckled Hind	11,618	10,940	94%	100%	10,940	2,188
Warsaw Grouper	7,444	1,668	22%	100%	1,668	334
Yellowedge Grouper	3,756	0	0%	100%	0	0
Misty Grouper	54	0	0%	100%	0	0
Blueline Tilefish	23,526	393	2%	100%	393	79
Silk Snapper	8,486	1,010	12%	100%	1,010	202
Queen Snapper	907	319	35%	100%	319	64
Black Sea Bass	13,039,834	10,023,548	76.9	15%	1,503,532	300,706
Red Porgy	308,238	183,909	59.6	10%	18,391	3,678
Vermilion Snapper	1,718,019	692,683	40.3	25%	173,171	34,634
Gag	766,451	577,341	75.3	25%	144,335	28,867