

**Table 4.4.2a SOUTHEAST REGION FISH BYCATCH BY FISHERY (2015)** Bycatch estimates are in live pounds or number of individuals. Estimates in the HMS Pelagic Longline Fishery reflect the average from the years identified. Some fishery bycatch ratios (marked \*\*) could not be developed because bycatch was estimated at least partly in terms of numbers, and landings were reported in weight. Bycatch of a species that is the object of a directed fishery (e.g., swordfish in the HMS Pelagic Longline Fishery) may be regulatory discards, i.e., fish harvested in a fishery that cannot be kept due to size restrictions or other regulations.

COMMON NAME	SCIENTIFIC NAME	YEAR	BYCATCH	UNIT	CV	FOOTNOTES
<b>Atlantic and Gulf of Mexico HMS Pelagic Longline %</b>						
Albacore - North Atlantic	Thunnus alalunga	2013-2015	27,641.00	POUND		
Atlantic sailfish	Istiophorus platypterus	2013-2015	14,096.00	POUND		
Bigeye tuna - Atlantic	Thunnus obesus	2013-2015	29,063.00	POUND		
Blackfin tuna - South Atlantic	Thunnus atlanticus	2013-2015	83,014.00	POUND		
Blue marlin - Atlantic	Makaira nigricans	2013-2015	175,421.00	POUND		
Blue shark - North Atlantic	Prionace glauca	2013-2015	182,538.00	POUND		
Bluefin tuna - Western Atlantic	Thunnus thynnus	2013-2015	32,189.00	POUND		
Large coastal sharks		2013-2015	183,867.00	POUND		
Pelagic sharks		2013-2015	72,231.00	POUND		
Skipjack tuna - Central Western Pacific	Katsuwonus pelamis	2013-2015	28,772.00	POUND		
Swordfish - North Atlantic	Xiphias gladius	2013-2015	305,688.00	POUND		
White marlin - Atlantic	Kajikia albida	2013-2015	16,823.00	POUND		
Yellowfin tuna - Atlantic	Thunnus albacares	2013-2015	74,130.00	POUND		
<b>TOTAL FISHERY BYCATCH</b>			1,225,473.00	POUND		
<b>TOTAL FISHERY LANDINGS</b>			7,771,295.00	POUND		
<b>TOTAL CATCH (Bycatch + Landings)</b>			8,996,768.00	POUND		
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>			0.14			
<b>Gulf of Mexico Coastal Migratory Pelagic Troll</b>						
Amberfishes, banded rudderfish, amberjacks, and yellowtails	Seriola	2015	129.28	INDIVIDUAL	5.07	
Atlantic bonito	Sarda sarda	2015	115.62	INDIVIDUAL	5.54	
Atlantic sharpnose shark	Rhizoprionodon terraenovae	2015	120.13	INDIVIDUAL	4.8	
Blacktip shark	Carcharhinus limbatus	2015	2,032.98	INDIVIDUAL	4.2	
Blue runner	Caranx crysos	2015	29.28	INDIVIDUAL	8.43	
Cartilaginous fishes	Chondrichthyes	2015	164.86	INDIVIDUAL	5.28	
Crevalle jack	Caranx hippos	2015	407.30	INDIVIDUAL	2.22	
Greater amberjack	Seriola dumerili	2015	75.69	INDIVIDUAL	5.06	m
Little tunny	Euthynnus alletteratus	2015	1,040.38	INDIVIDUAL	2.57	
Mackerels	Scomberomorus	2015	2,913.30	INDIVIDUAL	1.6	

Rays, sawfish, and skates	Rajiformes	2015	699.82	INDIVIDUAL	4.77	
Red drum	Sciaenops ocellatus	2015	195.23	INDIVIDUAL	8.43	
Red snapper	Lutjanus campechanus	2015	499.88	INDIVIDUAL	2.49	h
Tarpon	Megalops atlanticus	2015	7.81	INDIVIDUAL	8.43	
<b>TOTAL FISHERY BYCATCH</b>			8,431.56	INDIVIDUAL		
<b>TOTAL FISHERY LANDINGS</b>			491,804.00	POUND		
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>				**		
<b>Gulf of Mexico Reef Fish Bottom Longline</b>						
Amberfishes, banded rudderfish, amberjacks, and yellowtails	Seriola	2015	1,926.60	INDIVIDUAL	2.81	
Bar jack	Carangoides ruber	2015	77.13	INDIVIDUAL	11.09	
Barracudas	Sphyraenidae	2015	37.28	INDIVIDUAL	11.09	
Blacknose shark	Carcharhinus acronotus	2015	38.83	INDIVIDUAL	11.09	
Blacktip shark	Carcharhinus limbatus	2015	7,087.84	INDIVIDUAL	4.37	
Blueline tilefish	Caulolatilus microps	2015	5,783.00	INDIVIDUAL	.2	b
Bluntnose sixgill shark	Hexanchus griseus	2015	14.91	INDIVIDUAL	11.09	
Bull shark	Carcharhinus leucas	2015	322.34	INDIVIDUAL	6.72	
Cartilaginous fishes	Chondrichthyes	2015	44,195.04	INDIVIDUAL	2.41	
Cobia	Rachycentron canadum	2015	32.62	INDIVIDUAL	11.09	
Crevalle jack	Caranx hippos	2015	86.67	INDIVIDUAL	9.26	
Dogfish sharks	Squalidae	2015	435.36	INDIVIDUAL	7.44	
Dusky shark	Carcharhinus obscurus	2015	106.45	INDIVIDUAL	9.6	
Gag	Mycteroperca microlepis	2015	183.00	INDIVIDUAL	2.05	j
Goliath grouper	Epinephelus itajara	2015	191.96	INDIVIDUAL	3.74	
Gray snapper	Lutjanus griseus	2015	220.00	INDIVIDUAL	.3	i
Gray triggerfish	Balistes caprisucus	2015	21.00	INDIVIDUAL	9.64	a
Greater amberjack	Seriola dumerili	2015	1,330.00	INDIVIDUAL	1.19	m
Hammerhead sharks	Sphyrnidae	2015	1,769.59	INDIVIDUAL	3.42	
Lemon shark	Negaprion brevirostris	2015	212.10	INDIVIDUAL	11.09	
Lionfishes	Pterois	2015	911.51	INDIVIDUAL	3.92	
Little tunny	Euthynnus alletteratus	2015	37.28	INDIVIDUAL	11.09	
Mackerels	Scomberomorus	2015	37.28	INDIVIDUAL	11.09	
Margate	Haemulon album	2015	64.27	INDIVIDUAL	11.09	
Night shark	Carcharhinus signatus	2015	309.71	INDIVIDUAL	5.84	
Nurse shark	Ginglymostoma cirratum	2015	2,375.12	INDIVIDUAL	3.72	

Red drum	Sciaenops ocellatus	2015	13.98	INDIVIDUAL	11.09	
Red grouper	Epinephelus morio	2015	1,185,430.00	INDIVIDUAL	1.18	e
Red hind	Epinephelus guttatus	2015	24.85	INDIVIDUAL	11.09	
Red snapper	Lutjanus campechanus	2015	21,166.00	INDIVIDUAL	5.88	h
Remora	Remora	2015	38.56	INDIVIDUAL	11.09	
Sand tiger shark	Carcharias taurus	2015	430.12	INDIVIDUAL	11.09	
Sandbar shark	Carcharhinus plumbeus	2015	19,417.14	INDIVIDUAL	2.11	
Snowy grouper	Epinephelus niveatus	2015	302.00	INDIVIDUAL	7.5	f
Speckled hind	Epinephelus drummondhayi	2015	1,833.88	INDIVIDUAL	4.02	d
Spinner shark	Carcharhinus brevipinna	2015	186.39	INDIVIDUAL	11.09	
Tiger shark	Galeocerdo cuvier	2015	1,627.96	INDIVIDUAL	2.78	
Triggerfishes	Balistidae	2015	27.41	INDIVIDUAL	11.09	
Vermilion snapper	Rhomboplites aurorubens	2015	1,616.00	INDIVIDUAL	5.46	l
Yellowedge grouper	Epinephelus flavolimbatus	2015	881.32	INDIVIDUAL	7.84	
<b>TOTAL FISHERY BYCATCH</b>			1,300,802.50	INDIVIDUAL		
<b>TOTAL FISHERY LANDINGS</b>			5,899,722.00	POUND		
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>				**		

#### Gulf of Mexico Reef Fish Vertical Line

African pompano	Alectis ciliaris	2015	23.81	INDIVIDUAL	24.68	
Almaco jack	Seriola rivoliana	2015	628.16	INDIVIDUAL	14.44	
Amberfishes, banded rudderfish, amberjacks, and yellowtails	Seriola	2015	26,539.99	INDIVIDUAL	4.94	
Atlantic bonito	Sarda sarda	2015	241.94	INDIVIDUAL	32.91	
Atlantic sharpnose shark	Rhizoprionodon terraenovae	2015	22.25	INDIVIDUAL	27.59	
Bank sea bass	Centropristis ocyurus	2015	134.41	INDIVIDUAL	32.91	c
Barracudas	Sphyraenidae	2015	65.17	INDIVIDUAL	23.38	
Black grouper	Mycteroperca bonaci	2015	316.62	INDIVIDUAL	23.75	
Black sea bass	Centropristis striata	2015	6,391.86	INDIVIDUAL	17.12	
Blackbelly rosefish	Helicolenus dactylopterus	2015	8.60	INDIVIDUAL	32.91	
Blackfin tuna	Thunnus atlanticus	2015	208.74	INDIVIDUAL	31.8	
Blacknose shark	Carcharhinus acronotus	2015	1.34	INDIVIDUAL	32.91	
Blacktip shark	Carcharhinus limbatus	2015	5,826.31	INDIVIDUAL	12.14	
Blue runner	Caranx crysos	2015	6,906.51	INDIVIDUAL	21.74	
Bluefish	Pomatomus saltatrix	2015	6.45	INDIVIDUAL	32.91	
Blueline tilefish	Caulolatilus microps	2015	1,827.00	INDIVIDUAL	.2	b

Bony fishes	Osteichthyes	2015	6.33	INDIVIDUAL	32.91	
Breams and porgies	Sparidae	2015	564.53	INDIVIDUAL	32.91	
Bull shark	Carcharhinus leucas	2015	1,709.81	INDIVIDUAL	14.61	
Cartilaginous fishes	Chondrichthyes	2015	16,430.78	INDIVIDUAL	5.64	
Cobia	Rachycentron canadum	2015	910.31	INDIVIDUAL	18.66	
Creole-fish	Paranthias furcifer	2015	18.43	INDIVIDUAL	32.91	
Crevalle jack	Caranx hippos	2015	25,341.34	INDIVIDUAL	9.14	
Dolphinfish	Coryphaena	2015	14.93	INDIVIDUAL	32.91	
Flatfishes	Pleuronectiformes	2015	201.62	INDIVIDUAL	32.91	
Gag	Mycteroperca microlepis	2015	12,180.00	INDIVIDUAL	5.15	j
Goliath grouper	Epinephelus itajara	2015	14,777.69	INDIVIDUAL	6.45	
Gray snapper	Lutjanus griseus	2015	2,977.00	INDIVIDUAL	.3	i
Gray triggerfish	Balistes capriscus	2015	127,116.00	INDIVIDUAL	2.72	a
Greater amberjack	Seriola dumerili	2015	20,197.00	INDIVIDUAL	4.33	m
Grunts	Haemulidae	2015	2,713.08	INDIVIDUAL	21.03	
Hammerhead sharks	Sphyrnidae	2015	1,206.36	INDIVIDUAL	22.83	
Knobbed porgy	Calamus nodosus	2015	3,575.39	INDIVIDUAL	22.05	
Lane snapper	Lutjanus synagris	2015	65,782.83	INDIVIDUAL	4.77	
Lemon shark	Negaprion brevirostris	2015	1,250.81	INDIVIDUAL	10.41	
Lionfishes	Pterois	2015	225.22	INDIVIDUAL	21.9	
Little tunny	Euthynnus alletteratus	2015	10,009.34	INDIVIDUAL	8.8	
Mackerels	Scomberomorus	2015	2,040.57	INDIVIDUAL	12.7	
Mako sharks	Isurus	2015	1.16	INDIVIDUAL	32.91	
Moray eels	Muraenidae	2015	1.65	INDIVIDUAL	32.91	
Mutton snapper	Lutjanus analis	2015	2,564.00	INDIVIDUAL	.68	g
Nurse shark	Ginglymostoma cirratum	2015	8,579.23	INDIVIDUAL	6.03	
Octopus	Octopodidae	2015	201.62	INDIVIDUAL	32.91	
Rainbow runner	Elagatis bipinnulata	2015	115.21	INDIVIDUAL	32.91	
Red drum	Sciaenops ocellatus	2015	1,253.96	INDIVIDUAL	28.45	
Red grouper	Epinephelus morio	2015	547,990.00	INDIVIDUAL	3.04	e
Red porgy	Pagrus pagrus	2015	9,832.76	INDIVIDUAL	14.74	k
Red snapper	Lutjanus campechanus	2015	1,122,476.00	INDIVIDUAL	5.46	h
Reef shark	Carcharhinus perezii	2015	779.60	INDIVIDUAL	20.94	
Remora	Remora	2015	24,540.93	INDIVIDUAL	6.04	

Rock hind	Epinephelus adscensionis	2015	89.61	INDIVIDUAL	32.91	
Sand seatrout	Cynoscion arenarius	2015	5,376.52	INDIVIDUAL	32.91	
Sandbar shark	Carcharhinus plumbeus	2015	3,381.17	INDIVIDUAL	21.54	
Scamp	Mycteroperca phenax	2015	1,652.60	INDIVIDUAL	11.69	
Sea chubs	Kyphosidae	2015	129.04	INDIVIDUAL	32.91	
Sheepshead	Archosargus probatocephalus	2015	89.61	INDIVIDUAL	32.91	
Silky shark	Carcharhinus falciformis	2015	739.27	INDIVIDUAL	20.93	
Snappers	Lutjanidae	2015	242.48	INDIVIDUAL	19.08	
Snowy grouper	Epinephelus niveatus	2015	380.00	INDIVIDUAL	8.29	f
Speckled hind	Epinephelus drummondhayi	2015	935.00	INDIVIDUAL	7.43	d
Spinner shark	Carcharhinus brevipinna	2015	1,142.51	INDIVIDUAL	23.93	
Tiger shark	Galeocerdo cuvier	2015	1,060.76	INDIVIDUAL	18.46	
Tilefish	Lopholatilus chamaeleonticeps	2015	35.84	INDIVIDUAL	32.91	
Toad fishes	Batrachoididae	2015	89.61	INDIVIDUAL	32.91	
Triggerfishes	Balistidae	2015	46,284.92	INDIVIDUAL	4.35	
True eels	Anguilliformes	2015	112.44	INDIVIDUAL	17.94	
Vermilion snapper	Rhomboplites aurorubens	2015	591,320.00	INDIVIDUAL	4.61	l
White grunt	Haemulon plumierii	2015	6,317.41	INDIVIDUAL	15.23	
Yellowtail snapper	Ocyurus chrysurus	2015	95,511.14	INDIVIDUAL	8.28	

**TOTAL FISHERY BYCATCH**

2,831,624.58 INDIVIDUAL

**TOTAL FISHERY LANDINGS**

9,974,937.00 POUND

**FISHERY BYCATCH RATIO (Bycatch/Total Catch)**

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**Gulf of Mexico Shrimp Trawl<sup>^</sup>**

Atlantic croaker	Micropogonias undulatus	2015	62,411,656.67	POUND	.03	
Atlantic sharpnose shark	Rhizoprionodon terraenovae	2015	1,014,941.78	POUND	.1	
Black drum	Pogonias cromis	2015	381,970.78	POUND	.33	
Blacknose shark	Carcharhinus acronotus	2015	8,516.95	POUND	.73	
Blacktip shark	Carcharhinus limbatus	2015	462,802.02	POUND	.17	
Bonnethead shark	Sphyrna tiburo	2015	160,695.41	POUND	.15	
Cobia	Rachycentron canadum	2015	14,989.02	POUND	.51	
Finetooth shark	Carcharhinus isodon	2015	54,178.63	POUND	.57	
Florida smoothhound	Mustelus norrisi	2015	0.00	POUND	0	
Grouped finfish other than listed - Gulf of Mexico		2015	115,282,850.60	POUND	.02	
Grouped sharks - Gulf of Mexico		2015	85,180.99	POUND	.34	

King mackerel	<i>Scomberomorus cavalla</i>	2015	106,618.74	POUND	.21	
Lane snapper	<i>Lutjanus synagris</i>	2015	680,172.50	POUND	.08	
Lemon shark	<i>Negaprion brevirostris</i>	2015	0.00	POUND	0	
Longspine porgy	<i>Stenotomus caprinus</i>	2015	9,386,860.85	POUND	.05	
Miscellaneous crustaceans (unidentified)	Crustacea	2015	17,715,194.65	POUND	.02	
Non-crustacean invertebrates - Gulf of Mexico		2015	20,285,216.84	POUND	.03	
Penaeid shrimps	Penaeidae	2015	1,251,251.38	POUND	.07	
Red drum	<i>Sciaenops ocellatus</i>	2015	1,172,769.97	POUND	.13	
Red snapper	<i>Lutjanus campechanus</i>	2015	961,008.63	POUND	.05	h
Seatrout and weakfish - Gulf of Mexico	<i>Cynoscion</i>	2015	20,520,404.97	POUND	.03	
Smooth dogfish	<i>Mustelus canis</i>	2015	189,733.43	POUND	.17	
Snappers	Lutjanidae	2015	1,538.56	POUND	.48	
Southern flounder	<i>Paralichthys lethostigma</i>	2015	281,867.69	POUND	.09	
Spanish mackerel	<i>Scomberomorus maculatus</i>	2015	1,043,871.67	POUND	.09	
Spinner shark	<i>Carcharhinus brevipinna</i>	2015	139,394.23	POUND	.45	
Spotted seatrout	<i>Cynoscion nebulosus</i>	2015	49,864.70	POUND	.21	
Vermilion snapper	<i>Rhomboplites aurorubens</i>	2015	19,368.48	POUND	.29	l
<b>TOTAL FISHERY BYCATCH</b>			253,682,920.14	POUND		
<b>TOTAL FISHERY LANDINGS</b>			126,524,144.00	POUND		
<b>TOTAL CATCH (Bycatch + Landings)</b>			380,207,064.14	POUND		
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>			0.67			

**Southeastern Atlantic Coastal Gillnet (Including North Carolina and Gulf of Mexico)**

Atlantic angel shark	<i>Squatina dumeril</i>	2015	92.20	INDIVIDUAL	10.5	
Atlantic bumper	<i>Chloroscombrus chrysurus</i>	2015	898.60	INDIVIDUAL	7	
Atlantic croaker	<i>Micropogonias undulatus</i>	2015	576.00	INDIVIDUAL	5.1	
Atlantic cutlassfish	<i>Trichiurus lepturus</i>	2015	145.90	INDIVIDUAL	7.3	
Atlantic menhaden	<i>Brevoortia tyrannus</i>	2015	22,045.40	INDIVIDUAL	5.1	
Atlantic moonfish	<i>Selene setapinnis</i>	2015	80.60	INDIVIDUAL	9.7	
Atlantic sharpnose shark	<i>Rhizoprionodon terraenovae</i>	2015	21,139.10	POUND	3.7	
Banded drum	<i>Larimus fasciatus</i>	2015	1,397.80	INDIVIDUAL	6.4	
Blacknose shark	<i>Carcharhinus acronotus</i>	2015	337.40	POUND	11.9	
Blacktip shark	<i>Carcharhinus limbatus</i>	2015	3,202.10	POUND	6.6	
Blue runner	<i>Caranx crysos</i>	2015	26.90	INDIVIDUAL	11.9	
Bluefish	<i>Pomatomus saltatrix</i>	2015	307.80	POUND	6.5	

Bonnethead shark	Sphyrna tiburo	2015	4,372.60	POUND	5.1	
Butterfish	Peprilus triacanthus	2015	441.60	INDIVIDUAL	8.5	
Cleannose skate	Raja eglanteria	2015	2,603.50	INDIVIDUAL	9.3	
Cobia	Rachycentron canadum	2015	370.50	POUND	7.9	
Crevalle jack	Caranx hippos	2015	56.90	POUND	16.9	
Gafftopsail catfish	Bagre marinus	2015	952.30	INDIVIDUAL	9.2	
Grass porgy	Calamus arctifrons	2015	645.10	INDIVIDUAL	5.4	
Gulf kingfish	Menticirrhus littoralis	2015	11.50	INDIVIDUAL	16.9	
Gulf menhaden	Brevoortia patronus	2015	2,791.70	INDIVIDUAL	6.2	
Harvestfish	Peprilus paru	2015	172.80	INDIVIDUAL	9.6	
Inshore lizardfish	Synodus foetens	2015	80.60	INDIVIDUAL	6.8	
King mackerel	Scomberomorus cavalla	2015	3,335.30	POUND	8	
Ladyfish	Elops saurus	2015	107.50	INDIVIDUAL	8.4	
Little tunny	Euthynnus alletteratus	2015	38.40	INDIVIDUAL	12.6	
Pinfish	Lagodon rhomboides	2015	1,854.70	INDIVIDUAL	5.7	
Red grouper	Epinephelus morio	2015	587.20	POUND	10.4	e
Sandbar shark	Carcharhinus plumbeus	2015	967.70	INDIVIDUAL	10.4	
Scalloped hammerhead shark	Sphyrna lewini	2015	2,415.80	POUND	9.9	
Silver seatrout	Cynoscion nothus	2015	483.80	INDIVIDUAL	8.9	
Smooth dogfish	Mustelus canis	2015	1,063.10	POUND	7.2	
Southern kingfish	Menticirrhus americanus	2015	1,167.40	INDIVIDUAL	5.7	
Southern stingray	Dasyatis americana	2015	215.00	INDIVIDUAL	11.9	
Spanish mackerel	Scomberomorus maculatus	2015	1,016.30	POUND	5.6	
Spinner shark	Carcharhinus brevipinna	2015	22,535.80	POUND	6	
Spiny dogfish	Squalus acanthias	2015	951.30	POUND	7	
Spot	Leiostomus xanthurus	2015	26.90	INDIVIDUAL	11.9	
Spotted seatrout	Cynoscion nebulosus	2015	2,137.30	POUND	6.4	
Weakfish	Cynoscion regalis	2015	307.20	INDIVIDUAL	5.9	
Yellowfin menhaden	Brevoortia smithi	2015	4,093.40	INDIVIDUAL	13.6	
<b>TOTAL FISHERY BYCATCH</b>			42,224.50	INDIVIDUAL		
<b>TOTAL FISHERY BYCATCH</b>			63,828.50	POUND		
<b>TOTAL FISHERY LANDINGS</b>			13,569,353.00	POUND		
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>					**	

Southeastern Atlantic Coastal Migratory Pelagic Troll

African pompano	<i>Alectis ciliaris</i>	2015	15.53	INDIVIDUAL	22.52	
Almaco jack	<i>Seriola rivoliana</i>	2015	89.28	INDIVIDUAL	16.4	
Amberfishes, banded rudderfish, amberjacks, and yellowtails	<i>Seriola</i>	2015	251.41	INDIVIDUAL	11.28	
Atlantic sharpnose shark	<i>Rhizoprionodon terraenovae</i>	2015	172.72	INDIVIDUAL	9.75	
Barracudas	Sphyraenidae	2015	151.83	INDIVIDUAL	10.74	
Billfishes	Istiophoridae	2015	6.65	INDIVIDUAL	22.52	
Black grouper	<i>Mycteroperca bonaci</i>	2015	300.18	INDIVIDUAL	10.1	
Black sea bass	<i>Centropristis striata</i>	2015	69,678.93	INDIVIDUAL	21.77	
Blacktip shark	<i>Carcharhinus limbatus</i>	2015	107.13	INDIVIDUAL	20.95	
Blue marlin	<i>Makaira nigricans</i>	2015	6.65	INDIVIDUAL	22.52	
Blue runner	<i>Caranx crysos</i>	2015	106.47	INDIVIDUAL	22.52	
Bluefin tuna	<i>Thunnus thynnus</i>	2015	13.31	INDIVIDUAL	22.52	
Bluefish	<i>Pomatomus saltatrix</i>	2015	879.84	INDIVIDUAL	15.93	
Blueline tilefish	<i>Caulolatilus microps</i>	2015	776.33	INDIVIDUAL	22.52	b
Bony fishes	Osteichthyes	2015	422.32	INDIVIDUAL	13.32	
Cartilaginous fishes	Chondrichthyes	2015	1,042.99	INDIVIDUAL	4.58	
Cobia	<i>Rachycentron canadum</i>	2015	1,326.71	INDIVIDUAL	3.85	
Crevalle jack	<i>Caranx hippos</i>	2015	20.70	INDIVIDUAL	22.52	
Dolphinfish	<i>Coryphaena</i>	2015	7,754.90	INDIVIDUAL	5.27	
Flatfishes	Pleuronectiformes	2015	9.32	INDIVIDUAL	22.52	
Gag	<i>Mycteroperca microlepis</i>	2015	414.78	INDIVIDUAL	9.83	j
Goliath grouper	<i>Epinephelus itajara</i>	2015	46.58	INDIVIDUAL	22.52	
Gray snapper	<i>Lutjanus griseus</i>	2015	46.58	INDIVIDUAL	22.52	i
Gray triggerfish	<i>Balistes caprisкус</i>	2015	890.19	INDIVIDUAL	12.02	a
Greater amberjack	<i>Seriola dumerili</i>	2015	453.15	INDIVIDUAL	7.53	m
Groupers and sea basses	Serranidae	2015	15.53	INDIVIDUAL	22.52	
Grunts	Haemulidae	2015	828.09	INDIVIDUAL	22.52	
Hammerhead sharks	Sphyrnidae	2015	25.73	INDIVIDUAL	17.02	
Little tunny	<i>Euthynnus alletteratus</i>	2015	180.81	INDIVIDUAL	10.94	
Mackerels	<i>Scomberomorus</i>	2015	16,655.53	INDIVIDUAL	1.81	
Mako sharks	<i>Isurus</i>	2015	8.53	INDIVIDUAL	17.49	
Mutton snapper	<i>Lutjanus analis</i>	2015	47.61	INDIVIDUAL	18.28	g
Red drum	<i>Sciaenops ocellatus</i>	2015	9.32	INDIVIDUAL	22.52	
Red snapper	<i>Lutjanus campechanus</i>	2015	1,287.85	INDIVIDUAL	4.27	h



Reef shark	Carcharhinus perezii	2015	46.58	INDIVIDUAL	22.52	
Remora	Remora	2015	680.58	INDIVIDUAL	14.14	
Sailfish	Istiophorus platypterus	2015	90.94	INDIVIDUAL	8.86	
Sandbar shark	Carcharhinus plumbeus	2015	204.66	INDIVIDUAL	21.87	
Spadefishes	Ephippidae	2015	62.11	INDIVIDUAL	22.52	
Spanish mackerel	Scomberomorus maculatus	2015	838.44	INDIVIDUAL	13.65	
Spottail pinfish	Diplodus holbrookii	2015	19,470.39	INDIVIDUAL	22.52	
Tiger shark	Galeocerdo cuvier	2015	20.70	INDIVIDUAL	22.52	
Tomtate	Haemulon aurolineatum	2015	124.21	INDIVIDUAL	22.52	
Triggerfishes	Balistidae	2015	397.48	INDIVIDUAL	22.52	
Vermilion snapper	Rhomboplites aurorubens	2015	1,433.63	INDIVIDUAL	14.11	l
White grunt	Haemulon plumierii	2015	2,887.95	INDIVIDUAL	22.52	
Yellowfin tuna	Thunnus albacares	2015	296.88	INDIVIDUAL	7.16	
<b>TOTAL FISHERY BYCATCH</b>			130,598.03	INDIVIDUAL		
<b>TOTAL FISHERY LANDINGS</b>			338,728.00	POUND		
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>			**			
<b>Southeastern Atlantic Shrimp Trawl</b>						
Atlantic croaker	Micropogonias undulatus	2015	14,347,174.63	POUND	.09	
Atlantic menhaden	Brevoortia tyrannus	2015	867,628.01	POUND	.24	
Atlantic sharpnose shark	Rhizoprionodon terraenovae	2015	667,523.87	POUND	.16	
Bank sea bass	Centropristis ocyurus	2015	0.00	POUND	0	c
Black drum	Pogonias cromis	2015	892.22	POUND	1	
Black sea bass	Centropristis striata	2015	103.08	POUND	1	
Blacktip shark	Carcharhinus limbatus	2015	29,495.92	POUND	.56	
Blue crab	Callinectes sapidus	2015	82,741.24	POUND	.25	
Bluefish	Pomatomus saltatrix	2015	122,654.75	POUND	.21	
Bonnethead shark	Sphyrna tiburo	2015	431,286.78	POUND	.23	
Box jellyfish	Carybdeidae	2015	7,697,531.90	POUND	.11	
Cannonball jellyfish	Stomolophus meleagris	2015	3,813,159.34	POUND	.12	
Cobia	Rachycentron canadum	2015	0.00	POUND	0	
Finetooth shark	Carcharhinus isodon	2015	0.00	POUND	0	
Finfishes (unclassified, general)		2015	10,661,851.77	POUND	.06	
Florida pompano	Trachinotus carolinus	2015	23,814.61	POUND	.27	
Gag	Mycteroperca microlepis	2015	0.00	POUND	0	j

Grouped sharks - Gulf of Mexico		2015	0.00	POUND	0
Invertebrates (unidentified)		2015	2,369,058.11	POUND	.07
King mackerel	Scomberomorus cavalla	2015	21,032.56	POUND	.48
Miscellaneous crustaceans (unidentified)	Crustacea	2015	1,364,671.76	POUND	.08
Northern kingfish	Menticirrhus saxatilis	2015	0.00	POUND	0
Penaeid shrimps	Penaeidae	2015	1,482,727.37	POUND	.17
Red drum	Sciaenops ocellatus	2015	0.00	POUND	0
River herrings	Alosa	2015	0.00	POUND	0
Rock sea bass	Centropristis philadelphica	2015	263,243.72	POUND	.15
Scalloped hammerhead shark	Sphyrna lewini	2015	45,646.47	POUND	.5
Scup	Stenotomus chrysops	2015	0.00	POUND	0
Seatrout and weakfish - Gulf of Mexico	Cynoscion	2015	3,693,623.41	POUND	.08
Silky shark	Carcharhinus falciformis	2015	0.00	POUND	0
Silver seatrout	Cynoscion nothus	2015	58,588.23	POUND	.48
Smooth dogfish	Mustelus canis	2015	0.00	POUND	0
Southern flounder	Paralichthys lethostigma	2015	142,866.26	POUND	.24
Southern kingfish	Menticirrhus americanus	2015	1,546,682.40	POUND	.09
Spanish mackerel	Scomberomorus maculatus	2015	427,770.26	POUND	.21
Spinner shark	Carcharhinus brevipinna	2015	0.00	POUND	0
Spot	Leiostomus xanthurus	2015	8,328,979.11	POUND	.14
Spotted seatrout	Cynoscion nebulosus	2015	6,847.68	POUND	.58
Star drum	Stellifer lanceolatus	2015	5,577,923.22	POUND	.11
Sturgeons	Acipenser	2015	0.00	POUND	0
Summer flounder	Paralichthys dentatus	2015	344,069.12	POUND	.14
Weakfish	Cynoscion regalis	2015	48,474.02	POUND	.35
<b>TOTAL FISHERY BYCATCH</b>			64,468,061.82	POUND	
<b>TOTAL FISHERY LANDINGS</b>			23,891,923.00	POUND	
<b>TOTAL CATCH (Bycatch + Landings)</b>			88,359,984.82	POUND	
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>			0.73		
<b>Southeastern Atlantic Snapper-Grouper Bottom Longline</b>					
Almaco jack	Seriola rivoliana	2015	6.54	INDIVIDUAL	5.74
Atlantic sharpnose shark	Rhizoprionodon terraenovae	2015	17,502.06	INDIVIDUAL	5.72
Barracudas	Sphyraenidae	2015	47.05	INDIVIDUAL	5.74
Blackbelly rosefish	Helicolenus dactylopterus	2015	37.34	INDIVIDUAL	5.74

Blacknose shark	Carcharhinus acronotus	2015	4,792.53	INDIVIDUAL	5.74	
Blueline tilefish	Caulolatilus microps	2015	99.00	INDIVIDUAL	.5	b
Greater amberjack	Seriola dumerili	2015	120.39	INDIVIDUAL	3.85	m
Hammerhead sharks	Sphyrnidae	2015	709.19	INDIVIDUAL	2.02	
Moray eels	Muraenidae	2015	74.69	INDIVIDUAL	5.74	
Red porgy	Pagrus pagrus	2015	25.46	INDIVIDUAL	5.74	k
Sandbar shark	Carcharhinus plumbeus	2015	686.51	INDIVIDUAL	2.49	
Scalloped hammerhead shark	Sphyrna lewini	2015	319.50	INDIVIDUAL	5.74	
Snowy grouper	Epinephelus niveatus	2015	624.40	INDIVIDUAL	1.93	f
Spiny dogfish	Squalus acanthias	2015	62.74	INDIVIDUAL	5.74	
Tiger shark	Galeocerdo cuvier	2015	94.40	INDIVIDUAL	3.8	
Tilefish	Lopholatilus chamaeleonticeps	2015	475.72	INDIVIDUAL	3.86	
Vermilion snapper	Rhomboplites aurorubens	2015	37.34	INDIVIDUAL	5.74	l
<b>TOTAL FISHERY BYCATCH</b>			25,714.86	INDIVIDUAL		
<b>TOTAL FISHERY LANDINGS</b>			565,897.00	POUND		
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>				**		

#### Southeastern Atlantic Snapper-Grouper Vertical Line

Almaco jack	Seriola rivoliana	2015	4,792.61	INDIVIDUAL	6.18	
Amberfishes, banded rudderfish, amberjacks, and yellowtails	Seriola	2015	7,982.05	INDIVIDUAL	7.51	
Atlantic bonito	Sarda sarda	2015	856.48	INDIVIDUAL	17.6	
Atlantic needlefish	Strongylura marina	2015	520.68	INDIVIDUAL	20.45	
Atlantic sharpnose shark	Rhizoprionodon terraenovae	2015	8,676.18	INDIVIDUAL	15.6	
Ballyhoo	Hemiramphus brasiliensis	2015	76,500.69	INDIVIDUAL	14.43	
Banded rudderfish	Seriola zonata	2015	1,735.07	INDIVIDUAL	11.92	
Bar jack	Carangoides ruber	2015	184.88	INDIVIDUAL	24.58	
Barracudas	Sphyraenidae	2015	335.84	INDIVIDUAL	24.37	
Bigeye	Priacanthus arenatus	2015	3.83	INDIVIDUAL	30.47	
Black grouper	Mycteroperca bonaci	2015	3,299.99	INDIVIDUAL	7.39	
Black sea bass	Centropristis striata	2015	8,753.00	INDIVIDUAL	.53	
Blackbelly rosefish	Helicolenus dactylopterus	2015	1,188.50	INDIVIDUAL	24.6	
Blacknose shark	Carcharhinus acronotus	2015	271.66	INDIVIDUAL	42.92	
Blacktip shark	Carcharhinus limbatus	2015	202.80	INDIVIDUAL	25.7	
Blue marlin	Makaira nigricans	2015	27.98	INDIVIDUAL	38.82	
Blue runner	Caranx crysos	2015	12,492.73	INDIVIDUAL	9.13	

Bluefish	Pomatomus saltatrix	2015	318.01	INDIVIDUAL	19.92	
Blueline tilefish	Caulolatilus microps	2015	15,640.00	INDIVIDUAL	.5	b
Bonnethead shark	Sphyrna tiburo	2015	37.73	INDIVIDUAL	42.92	
Bony fishes	Osteichthyes	2015	993.93	INDIVIDUAL	16.17	
Breams and porgies	Sparidae	2015	120.74	INDIVIDUAL	25.65	
Bull shark	Carcharhinus leucas	2015	1,052.67	INDIVIDUAL	11.5	
Butterflyfishes	Chaetodontidae	2015	37.73	INDIVIDUAL	42.92	
Cartilaginous fishes	Chondrichthyes	2015	3,665.84	INDIVIDUAL	9.93	
Cobia	Rachycentron canadum	2015	993.24	INDIVIDUAL	8.39	
Cubera snapper	Lutjanus cyanopterus	2015	56.60	INDIVIDUAL	30.34	
Dasyatidae	Dasyatidae	2015	20.37	INDIVIDUAL	39.86	
Dolphinfish	Coryphaena	2015	2,058.98	INDIVIDUAL	11.44	
Dusky shark	Carcharhinus obscurus	2015	99.37	INDIVIDUAL	31.99	
Finetooth shark	Carcharhinus isodon	2015	10.78	INDIVIDUAL	42.92	
Flatfishes	Pleuronectiformes	2015	377.30	INDIVIDUAL	42.92	
Gag	Mycteroperca microlepis	2015	13,640.87	INDIVIDUAL	7.47	j
Goliath grouper	Epinephelus itajara	2015	786.15	INDIVIDUAL	15.76	
Gray snapper	Lutjanus griseus	2015	30,433.99	INDIVIDUAL	9.2	i
Gray triggerfish	Balistes capriscus	2015	11,278.00	INDIVIDUAL	9.84	a
Graysby	Cephalopholis cruentata	2015	113.19	INDIVIDUAL	31.98	
Great hammerhead	Sphyrna mokarran	2015	354.66	INDIVIDUAL	14.67	
Greater amberjack	Seriola dumerili	2015	7,923.98	INDIVIDUAL	6.51	m
Groupers and sea basses	Serranidae	2015	82.00	INDIVIDUAL	23.32	
Grunts	Haemulidae	2015	2,604.71	INDIVIDUAL	11.27	
Hammerhead sharks	Sphyrnidae	2015	94.19	INDIVIDUAL	24.51	
Hogfish	Lachnolaimus maximus	2015	2,284.35	INDIVIDUAL	12.43	
Jolthead porgy	Calamus bajonado	2015	2,125.47	INDIVIDUAL	19.62	
Lane snapper	Lutjanus synagris	2015	3,743.68	INDIVIDUAL	17.8	
Lemon shark	Negaprion brevirostris	2015	278.37	INDIVIDUAL	16	
Lesser amberjack	Seriola fasciata	2015	244.11	INDIVIDUAL	18.24	
Lionfishes	Pterois	2015	143.28	INDIVIDUAL	14.1	
Little tunny	Euthynnus alletteratus	2015	7,881.21	INDIVIDUAL	5.96	
Mackerel scad	Decapterus macarellus	2015	282.98	INDIVIDUAL	42.92	
Mackerels	Scomberomorus	2015	5,369.62	INDIVIDUAL	11.17	

Mako sharks	Isurus	2015	1.26	INDIVIDUAL	42.92	
Margate	Haemulon album	2015	167.69	INDIVIDUAL	42.92	
Moray eels	Muraenidae	2015	67.91	INDIVIDUAL	30.53	
Mutton snapper	Lutjanus analis	2015	2,564.00	INDIVIDUAL	.68	g
Nassau grouper	Epinephelus striatus	2015	28.30	INDIVIDUAL	42.92	
Nurse shark	Ginglymostoma cirratum	2015	600.54	INDIVIDUAL	12.84	
Ocean triggerfish	Canthidermis sufflamen	2015	90.55	INDIVIDUAL	42.92	
Octopus	Octopodidae	2015	12.58	INDIVIDUAL	42.92	
Painted mackerel	Scomberomorus regalis	2015	22.64	INDIVIDUAL	42.92	
Parrotfishes	Scaridae	2015	1,501.39	INDIVIDUAL	10.13	
Pilotfish	Naucrates ductor	2015	409.79	INDIVIDUAL	14.26	
Porkfish	Anisotremus virginicus	2015	37.73	INDIVIDUAL	42.92	
Rainbow runner	Elagatis bipinnulata	2015	2,138.94	INDIVIDUAL	22.69	
Red drum	Sciaenops ocellatus	2015	84.89	INDIVIDUAL	42.92	
Red grouper	Epinephelus morio	2015	18,750.00	INDIVIDUAL	13.16	e
Red porgy	Pagrus pagrus	2015	20,039.00	INDIVIDUAL	3.16	k
Red snapper	Lutjanus campechanus	2015	49,904.00	INDIVIDUAL	.11	h
Remora	Remora	2015	9,419.94	INDIVIDUAL	15.99	
Rock hind	Epinephelus adscensionis	2015	20.18	INDIVIDUAL	21.82	
Sailfish	Istiophorus platypterus	2015	550.50	INDIVIDUAL	30.25	
Sand tiger shark	Carcharias taurus	2015	155.46	INDIVIDUAL	24.72	
Sand tilefish	Malacanthus plumieri	2015	314.42	INDIVIDUAL	23.34	
Sandbar shark	Carcharhinus plumbeus	2015	1,746.03	INDIVIDUAL	15.44	
Scalloped hammerhead shark	Sphyrna lewini	2015	445.22	INDIVIDUAL	14.93	
Scamp	Mycteroperca phenax	2015	2,789.42	INDIVIDUAL	6.03	
Scorpionfishes	Scorpaenidae	2015	13.62	INDIVIDUAL	32.51	
Sea chubs	Kyphosidae	2015	382.71	INDIVIDUAL	32.04	
Sheepshead	Archosargus probatocephalus	2015	477.92	INDIVIDUAL	40.72	
Silky shark	Carcharhinus falciformis	2015	142.97	INDIVIDUAL	31.3	
Snappers	Lutjanidae	2015	66.55	INDIVIDUAL	21.78	
Snowy grouper	Epinephelus niveatus	2015	681.26	INDIVIDUAL	20.94	f
Soliderfishes and squirrelfishes	Holocentridae	2015	238.88	INDIVIDUAL	24.42	
Spadefishes	Ephippidae	2015	4,167.21	INDIVIDUAL	10.05	
Spanish mackerel	Scomberomorus maculatus	2015	3,608.80	INDIVIDUAL	11.76	

Speckled hind	Epinephelus drummondhayi	2015	150.84	INDIVIDUAL	18.13	d
Spinner shark	Carcharhinus brevipinna	2015	113.19	INDIVIDUAL	31.98	
Spottail pinfish	Diplodus holbrookii	2015	157.21	INDIVIDUAL	30.94	
Surgeonfishes	Acanthuridae	2015	28.30	INDIVIDUAL	42.92	
Tiger shark	Galeocerdo cuvier	2015	338.46	INDIVIDUAL	13.87	
Tilefish	Lopholatilus chamaeleonticeps	2015	114.24	INDIVIDUAL	17.57	
Toad fishes	Batrachoididae	2015	11.39	INDIVIDUAL	31.22	
Tomtate	Haemulon aurolineatum	2015	660.28	INDIVIDUAL	30.65	
Triggerfishes	Balistidae	2015	8,812.91	INDIVIDUAL	6.09	
True eels	Anguilliformes	2015	56.60	INDIVIDUAL	42.92	
Vermilion snapper	Rhomboplites aurorubens	2015	62,750.29	INDIVIDUAL	3.64	l
Wahoo	Acanthocybium solandri	2015	1.08	INDIVIDUAL	42.92	
Warsaw grouper	Epinephelus nigritus	2015	80.80	INDIVIDUAL	28.51	
White grunt	Haemulon plumierii	2015	4,058.51	INDIVIDUAL	12.13	
Yellow jack	Carangoides bartholomaei	2015	25.15	INDIVIDUAL	42.92	
Yellowtail snapper	Ocyurus chrysurus	2015	68,165.51	INDIVIDUAL	3.96	

**TOTAL FISHERY BYCATCH**

510,140.13 INDIVIDUAL

**TOTAL FISHERY LANDINGS**

3,320,446.00 POUND

**FISHERY BYCATCH RATIO (Bycatch/Total Catch)**

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**Southeastern Atlantic and Gulf of Mexico Shark Bottom Longline<sup>\$</sup>**

Atlantic devil ray	Mobula hypostoma	2015	2,153.73	POUND	2.73	
Atlantic sharpnose shark	Rhizoprionodon terraenovae	2015	41,145.72	POUND	1.32	
Blacknose shark	Carcharhinus acronotus	2015	45,026.46	POUND	1.73	
Blacktip shark	Carcharhinus limbatus	2015	51,520.55	POUND	1.55	
Bonnethead shark	Sphyrna tiburo	2015	441.22	POUND	4	
Bull shark	Carcharhinus leucas	2015	16,657.36	POUND	4	
Goliath grouper	Epinephelus itajara	2015	10,725.95	POUND	4	
Red drum	Sciaenops ocellatus	2015	656.97	POUND	4	
Red snapper	Lutjanus campechanus	2015	5,979.82	POUND	2.15	h
Sand tiger shark	Carcharias taurus	2015	138,914.05	POUND	2.73	
Sandbar shark	Carcharhinus plumbeus	2015	86,249.99	POUND	2.15	
Scalloped hammerhead shark	Sphyrna lewini	2015	61,258.53	POUND	3.36	
Spinner shark	Carcharhinus brevipinna	2015	11,018.26	POUND	2.31	
Tiger shark	Galeocerdo cuvier	2015	8,536.56	POUND	4	

Warsaw grouper	Epinephelus nigritus	2015	1,783.22	POUND	4
<b>TOTAL FISHERY BYCATCH</b>			482,068.39	POUND	
<b>TOTAL FISHERY LANDINGS</b>			1,495,862.00	POUND	
<b>TOTAL CATCH (Bycatch + Landings)</b>			1,977,930.39	POUND	
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>			0.24		
<b>Southeastern Atlantic and Gulf of Mexico Shark Bottom Longline Research Fishery<sup>#, ~</sup></b>					
Atlantic sharpnose shark	Rhizoprionodon terraenovae	2015	823.30	POUND	
Blacknose shark	Carcharhinus acronotus	2015	585.20	POUND	
Blacktip shark	Carcharhinus limbatus	2015	360.60	POUND	
Dusky shark	Carcharhinus obscurus	2015	11,088.20	POUND	
Goliath grouper	Epinephelus itajara	2015	151.20	POUND	
Great hammerhead	Sphyrna mokarran	2015	2,595.50	POUND	
Nurse shark	Ginglymostoma cirratum	2015	12,098.90	POUND	
Red drum	Sciaenops ocellatus	2015	4.50	POUND	
Red grouper	Epinephelus morio	2015	85.00	POUND	e
Red snapper	Lutjanus campechanus	2015	36.40	POUND	h
Sand tiger shark	Carcharias taurus	2015	4,127.00	POUND	
Sandbar shark	Carcharhinus plumbeus	2015	1,191.80	POUND	
Scalloped hammerhead shark	Sphyrna lewini	2015	1,615.70	POUND	
Silky shark	Carcharhinus falciformis	2015	285.00	POUND	
Spinner shark	Carcharhinus brevipinna	2015	121.50	POUND	
Tiger shark	Galeocerdo cuvier	2015	14,625.40	POUND	
<b>TOTAL FISHERY BYCATCH</b>			49,795.20	POUND	
<b>TOTAL FISHERY LANDINGS</b>			308,279.00	POUND	
<b>TOTAL CATCH (Bycatch + Landings)</b>			358,074.20	POUND	
<b>FISHERY BYCATCH RATIO (Bycatch/Total Catch)</b>			0.14		

#### FOOTNOTES

# This table does not include the following 34 individual fish recorded as bycatch in this fishery: 1 barracuda, 1 clearnose skate, 2 gag, 3 greater amberjacks, 3 hammerhead sharks, 1 lemon shark, 1 leopard toadfish, 1 moray eel, 3 requiem sharks, 1 rougtail stingray, 1 shark, 2 sharksuckers, 2 smalltooth sawfish, 1 southern stingray, 2 stingrays – South Atlantic/Gulf of Mexico, 8 toad fishes, and 1 white shark.

§ These estimates apply to the Shark Bottom Longline Fishery only; they do not include estimates related to the Shark Bottom Longline Research Fishery, which are described in a separate table.

% Fish bycatch estimates in the HMS Pelagic Longline Fishery are for dead discards only.

^ Gulf of Mexico Shrimp Trawl estimates are for the offshore portion of the fishery only (COLREGS line (beach) out to 50 fathoms).

~ The Shark Bottom Longline Research Fishery has 100% observer coverage; therefore, no extrapolation is needed in its bycatch estimates.

a For the GOM Reef Fish Vertical Line Fishery, the estimate is a weighted mean of discards for years 2011-13 (see SEDAR 43); the CV is the midpoint of the 1.58-3.85 range among strata. For SATL Snapper-Grouper Vertical Line Fishery, SEDAR 41 see data workshop report for more information; the CV is the midpoint of the 7.71-11.97 range among strata. For the GOM Reef Fish Bottom Longline Fishery, the estimate is a weighted mean of discards for years 2011-13 (see SEDAR 43); the CV is the midpoint of the 2.94-16.34 range among strata.

b See SEDAR 50 data workshop report for more information.

c For the SATL Snapper-Grouper Vertical Line Fishery, see SEDAR 56 assessment report for more information.

d For the GOM Reef Fish Vertical Line Fishery, see the SEDAR 49 data workshop report for more information. For the GOM Reef Fish Bottom Longline Fishery, the SEDAR 49 data workshop report for more information; the CV is the midpoint of the 2.8-3.0 range among strata.

e For the GOM Reef Fish Vertical Line Fishery, the estimate is a weighted mean of discards for years 2011-13 (see SEDAR 420); the CV is the midpoint of the 0.64-5.45 range among strata. For the SATL Snapper-Grouper Vertical Line Fishery, see the SEDAR 53 data workshop report for more information; the CV is the midpoint of the 1.41-25.10 range among strata. For the GOM Reef Fish Bottom Longline Fishery, the estimate is a weighted mean of discards for years 2011-13 (see SEDAR 42); the CV is the midpoint of the 0.57-1.79 range among strata.

f For the GOM Reef Fish Vertical Line Fishery, see SEDAR 49 data workshop report for additional information. For the GOM Reef Fish Bottom Longline Fishery, see the SEDAR 49 data workshop report for more information; the CV is the midpoint of the 1.41-4.9 range among strata.

g For the GOM Reef Fish Vertical Line Fishery, the estimate is a weighted mean of discards for years 2010-12 (see SEDAR 15 update for 2015); estimate total includes Gulf of Mexico and South Atlantic; the CV is the midpoint of the 0.62-0.74 range among years.

h For the GOM Reef Fish Vertical Line Fishery, the estimate is a weighted mean of discards for years 2011-13 (see SEDAR 31 2014 update); the CV is the midpoint of the 1.98-8.95 range among strata. For the GOM Reef Fish Bottom Longline Fishery, the estimate is a weighted mean of discards for years 2011-13 (see SEDAR 31 2014 update); the CV is the midpoint of the 1.21-10.54 range among strata.

i For the GOM Reef Fish Vertical Line Fishery and GOM Reef Fish Bottom Longline Fishery, see SEDAR 51 data workshop report for more information.

j For the GOM Reef Fish Vertical Line Fishery, see the SEDAR GOM 2016 assessment update for more information; the CV is the midpoint of the 3.51-6.29 range among strata. For the GOM Reef Fish Bottom Longline Fishery, see SEDAR GOM 2016 assessment update for more information.

k For the SATL Snapper-Grouper Vertical Line Fishery, the estimate is a weighted mean of discards for years 2009-11 (see SEDAR update 2012); the CV is the midpoint of the 1.72-4.59 range among strata.

l For the GOM Reef Fish Vertical Line Fishery, see SEDAR 45 data workshop report for more information; the CV is the midpoint of the 1.41-2.35 range among strata. For the GOM Reef Fish Bottom Longline Fishery, see SEDAR 45 data workshop report for more information.

m For the GOM Reef Fish Vertical Line Fishery, see SEDAR GOM 2016 assessment update for more information; the CV is the midpoint of the 2.68-3.3 range among strata. For the GOM Reef Fish Bottom Longline Fishery, see SEDAR GOM 2016 assessment update for more information; the CV is the midpoint of the 1.13-1.73 range among strata.