

TABLE 4.4 SOUTHEAST REGION SEA TURTLE BYCATCH BY FISHERY Bycatch estimates are for live and dead releases in all fisheries, with the exception of the shrimp trawl fisheries, where estimates are for mortalities only. Where multiple years of data are indicated, the estimate is an annual average. Estimates are included only for species with documented bycatch in a given year or years.

COMMON NAME	SCIENTIFIC NAME	YEAR	BYCATCH	UNIT	CV	FOOTNOTE(S)
Atlantic and Gulf of Mexico HMS Pelagic Longline						
Leatherback sea turtle	<i>Dermochelys coriacea</i>	2010	172.90	INDIVIDUAL	0.26	d
Loggerhead sea turtle	<i>Caretta caretta</i>	2010	344.40	INDIVIDUAL	0.19	d
Fishery Total			517.30			
Gulf of Mexico Reef Fish Bottom Longline						
Loggerhead sea turtle	<i>Caretta caretta</i>	2010	26.50	INDIVIDUAL	0.69	e
Fishery Total			26.50			
Gulf of Mexico Reef Fish Vertical Line						
Loggerhead sea turtle	<i>Caretta caretta</i>	2006-2008	32.90	INDIVIDUAL		f
Fishery Total			32.90			
Gulf of Mexico Shrimp Trawl[§]						
Green sea turtle	<i>Chelonia mydas</i>	2002	486.00	INDIVIDUAL		g, h
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	2002	3,884.00	INDIVIDUAL		g, h
Leatherback sea turtle	<i>Dermochelys coriacea</i>	2009	18.00	INDIVIDUAL		g, i
Loggerhead sea turtle	<i>Caretta caretta</i>	2009	778.00	INDIVIDUAL		g, i
Fishery Total			5,166.00			
Large Coastal and Small Coastal Shark Aggregates (Drift, Strike, and Bottom Gillnet)						
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	2007-2010	2.95	INDIVIDUAL		j
Loggerhead sea turtle	<i>Caretta caretta</i>	2007-2010	8.90	INDIVIDUAL		j
Fishery Total			11.85			
Southeastern Atlantic Shrimp Trawl[§]						
Green sea turtle	<i>Chelonia mydas</i>	2002	28.00	INDIVIDUAL		g, h
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	2002	324.00	INDIVIDUAL		g, h
Leatherback sea turtle	<i>Dermochelys coriacea</i>	2009	8.00	INDIVIDUAL		g, i
Loggerhead sea turtle	<i>Caretta caretta</i>	2009	673.00	INDIVIDUAL		g, i
Fishery Total			1,033.00			
Southeastern Atlantic Snapper-Grouper Vertical Line						
Green sea turtle	<i>Chelonia mydas</i>	2007	56.33	INDIVIDUAL	33.70	k

Fishery Total				56.33		
Southeastern Atlantic and Gulf of Mexico Shark Bottom Longline						
Loggerhead sea turtle	<i>Caretta caretta</i>	2010	5.80	INDIVIDUAL	1.00	j, l
Fishery Total			5.80			
Grand Total			6,849.68			

SOUTHEAST REGION SEA TURTLE BYCATCH BY STOCKS AND SPECIES ¹

COMMON NAME	SCIENTIFIC NAME	YEAR	BYCATCH	UNIT	FOOTNOTE(S)
Green sea turtle	<i>Chelonia mydas</i>	2002	514.00	INDIVIDUAL	g
Green sea turtle	<i>Chelonia mydas</i>	2007	56.33	INDIVIDUAL	
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	2002	4,208.00	INDIVIDUAL	g
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	2007-2010	2.95	INDIVIDUAL	
Leatherback sea turtle	<i>Dermochelys coriacea</i>	2009	26.00	INDIVIDUAL	g
Leatherback sea turtle	<i>Dermochelys coriacea</i>	2010	172.90	INDIVIDUAL	
Loggerhead sea turtle	<i>Caretta caretta</i>	2006-2008	32.90	INDIVIDUAL	
Loggerhead sea turtle	<i>Caretta caretta</i>	2007-2010	8.90	INDIVIDUAL	
Loggerhead sea turtle	<i>Caretta caretta</i>	2009	1,451.00	INDIVIDUAL	g
Loggerhead sea turtle	<i>Caretta caretta</i>	2010	376.70	INDIVIDUAL	
GRAND TOTAL			6,849.68	INDIVIDUAL	

FOOTNOTES:

¹ Species totals include estimates of mortalities only for shrimp trawl fisheries and estimates of live and dead interactions for the other fisheries included in this update (see estimates by fishery and associated footnotes for details).

§ Estimates were not available for all species in the same year, but all four species are known to interact with shrimp trawls and thus are included here.

d Estimate is from Garrison and Stokes 2012 (Table 12) and includes estimated takes from regular fishing activity, as well as all (if any) takes from 100%-observed experimental sets.

e Estimate is from NMFS 2011. This extrapolated estimate is based upon a sparse data set (i.e., 3 sea turtle takes in a single year) and potentially invokes large assumptions regarding unobserved events.

f Estimate is from NMFS 2009 and is an annual average calculated using observer and fishery effort data from July 2006-December 2008.

g Estimate is for bycatch mortality only.

h Estimate is from NMFS 2002 and was included because no new estimate was available for the species, which is known to interact with this fishery. See Epperly et al. 2002 for further details on methods.

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- i Estimate is from January 5, 2011 Ponwith to Crabtree memo, "Data Analysis Request: update of turtle bycatch in the Gulf of Mexico and southeastern Atlantic shrimp fisheries, NMFS Southeast Fisheries Science Center." Leatherback and loggerhead sea turtle mortality estimates were generated for 2009 using the most recently collected sea turtle catch per unit effort data (May 1997-May 1998; see Epperly et al. 2002) and fishery effort data (2001-2009).
- j Estimate is from Carlson and Richards 2011.
- k Estimate calculated using a simple ratio estimator: self-reported discard rate (from fisher reported discard logbooks) expanded by self-reported total effort.
- l Includes estimated takes from regular fishing activity, as well as takes from a 100%-observed research fishery.