

**Estimates of released king mackerel in the South Atlantic and Gulf of Mexico Headboat fishery, 2004-2006.**

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SEDAR 16, Gulf of Mexico and South Atlantic King Mackerel Data Workshop, February, 2008.

In 2004 the Headboat Survey added a discard category to the logbook form for the South Atlantic and Gulf of Mexico. This category is described on the form as the number of fish by species released alive and number released dead. Port agents instructed each captain on criteria for determining the condition of discarded fish. A fish is considered “released alive” if it is able to swim away on its own. If the fish floats off or is obviously dead or unable to swim, it is considered “released dead”. This self-reported data is currently unvalidated within the Headboat Survey. Comparisons to the MRFSS At-Sea Observer program will be beneficial. Current release estimates were generated using SAS programming for 2004-2006 (Table1).

Table 1. South Atlantic and Gulf of Mexico king mackerel headboat release estimates 2004-2006.

South Atlantic						
Area	2004		2005		2006	
	RelAlive	RelDead	RelAlive	RelDead	RelAlive	RelDead
NC	14	0	2	0	0	0
SC	717	3	239	16	431	8
GA\NEFL	30	4	28	0	54	0
SEFL	921	1,587	2,428	90	1,865	27
FLKeys	60	0	138	2	272	6
Total	1,742	1,594	2,835	108	2,622	41

Gulf of Mexico						
Area	2004		2005		2006	
	RelAlive	RelDead	RelAlive	RelDead	RelAlive	RelDead
SWFL	18	0	33	0	28	1
NWFL\AL	0	0	1	0	0	0
TX	5	0	193	2	160	8
Total	23	0	227	2	188	9

From 1981 to 2006 annual headboat landings estimates have been generated using a program written in CLIPPER. The source code for the CLIPPER routine is no longer available; hence, attempts to include discard data in catch estimates failed. In 2006 the

Headboat Survey contracted with SAS Institute to create a SAS-based program using similar statistical methods to the CLIPPER routine, while also generating release estimates. This contract was in two phases and was completed in November 2007. Paired estimates of landings using CLIPPER and SAS routines compared favorably for data from 2004-2006 (Table 2). SAS is a more powerful and flexible statistical program package which can be supported by staff more readily to account for changes to the survey. The Headboat Survey will use the SAS- based program for estimating landings in 2007 and beyond.

Observations by the author suggest that self-reported landings are most reliable for larger species, such as, amberjack, grouper, dolphin and king mackerel. Larger fishes generally draw more attention from clientele on a headboat, and often require the assistance of the mate. Smaller species, such as, tomtate, bank sea bass and grunts are often unremarkable, may be unhooked by the angler, and released without assistance or fanfare.

Table 2. Comparison of estimated king mackerel headboat landings  
SAS vs CLIPPER, 2004-2006

South Atlantic				
	<u>Estimated number landed</u>		<u>Estimated wieght landed (kg.)</u>	
<u>YEAR</u>	<u>SAS</u>	<u>CLIPPER</u>	<u>SAS</u>	<u>CLIPPER</u>
2004	20,258	20,230	70,889	76,762
2005	38,765	37,703	110,287	106,930
2006	31,549	31,384	93,521	94,556

  

Gulf Of Mexico				
	<u>Estimated number landed</u>		<u>Estimated wieght landed (kg.)</u>	
<u>YEAR</u>	<u>SAS</u>	<u>CLIPPER</u>	<u>SAS</u>	<u>CLIPPER</u>
2004	17,873	17,498	73,289	70,119
2005	18,611	18,619	73,741	72,972
2006	23,572	23,711	88,635	97,123