

Trends in Atlantic Dolphin Landings 2010-2015 and ACL
Monitoring of Atlantic Dolphin by the SEFSC during the 2015
Season

Prepared by the Fisheries
Statistics Division at the
Southeast Fisheries Science Center

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On July 7th, 2015, the Southeast Fisheries Science Center (SEFSC) received a memo from the South Atlantic Fishery Management Council (SAFMC) requesting information and data relevant to the Atlantic dolphin closure. The SAFMC specified nine items in the request, but only 6 of those items were deemed relevant to ACL monitoring, these included: dealer reported landings from ME-FL during 2010-2015, a description of the ACL monitoring information used to make the determination that the ACL had been caught, how the SEFSC has dealt with species vs genus level reporting, dealer reporting compliance observed during the 2015 Atlantic dolphin season, and any information the SEFSC may have that would explain why catches were higher in 2015 than in previous years. The SAFMC also requested logbook data, a description of the integration process for Coastal Fisheries and HMS logbooks, and updated stock identification information. The SEFSC tracks the Atlantic dolphin ACL with dealer reports, so the logbook and stock identification information were not part of the closure process and were not included in this report.

Dolphin Landings Trends

Atlantic dolphin landings and trips from 2010-2014 covering dolphin caught or landed from the Florida Keys to Maine were extracted from the Atlantic Coastal Cooperative Statistics Program (ACCSP) data warehouse. Preliminary Atlantic dolphin landings for 2015 were extracted from the Commercial Landings Monitoring System (CLM) at the Southeast Fisheries Science Center (SEFSC). The information available from ACCSP come primarily from state and federal dealer reports (trip tickets), while the data in CLM are from preliminary federal electronic dealer reports. Landings are presented as live weight as reported in ACCSP and as converted from landed weight in the CLM data. The numbers of trips are calculated as the number of distinct trip identifiers. As stated in 50 CFR part 622.2, dolphin includes both *Coryphaena equiselis* and *C. hippurus*. As both species are included in the regulations governing the Atlantic dolphin fishery, the species codes for both species of dolphin, as well as the code for the genus *Coryphaena* were included in the data extracted from ACCSP and CLM and presented here.

Although Atlantic dolphin landings hovered between 600,000 and 800,000 pounds live weight between 2010 and 2013, landings increased to over 1.1 million pounds live weight during 2014 and 2015 (Figure 1). The number of trips landing dolphin were between 3,500 and 4,500 until 2015, when the number of trips dropped to 2,208 (Figure 2). Longline gear accounted for 73% of the landings from 2010 to 2015, while only accounting for 24% of the trips. Hook and line mean catch per trip in pounds live weight was between 76 and 91 pounds from 2010-2015, but longline mean catch per trip in pounds live weight was between 400 and 600 pounds from 2010-2013, increasing to over 800 pounds in 2014 and almost 2,000 pounds in 2015 (Table 1).

During 2010-2015, the fishery started with a low number of trips landing dolphin from January to March, a slight increase in April, peaking in May, and a slow decline in the number of trips landing dolphin through the remainder of the year (Figure 3). Dolphin landings follow a similar trend with a peak in May, lower landings in June and slowly tapering off the remainder of the year (Figure 4). The difference was that higher landings occurred in May in 2015 when compared to other years, resulting in a closure in 2015.

Possible Reasons for Higher Catches

The final rule implementing Amendment 7 to the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan became effective on January 1, 2015. This amendment implemented an individual bluefin tuna quota and a restricted area off of Cape Hatteras from January to April that may have led to changes in fishing behavior because fishers were attempting to avoid bluefin tuna interactions. Staff members in the HMS logbook program believe that the changes in fishing behavior, as a result of Amendment 7, resulted in higher catches of dolphin by commercial vessels. Anecdotal information from the Pelagic Observer Program may be indicative of a higher number of trips targeting dolphin this year.

Given the higher catch per trip observed in the dealer data this year, there may have been an increase in the targeting of dolphin by fishers. Another explanation for the increase in catch may be an increase in the availability of dolphin in the Atlantic due to above average recruitment or beneficial sea surface temperatures and oceanic currents that led to a higher than average density of dolphin in areas of high fishing pressure. Since hook and line catches of dolphin per trip did not increase this year, it may be that there was not an increase in density in areas where hook and line fishing occurs, and the increase in density may be localized to areas where longline fishing occurs; or there is another reason for the increase in catches.

ACL Monitoring

Current ACL monitoring procedures utilize landings information submitted through the electronic dealer reporting pathway to the CLM at the SEFSC (Figure 5). The majority of Atlantic dealer reports end up either in SAFIS (ME-VA, SC and GA) or another table on the SAFIS server (NC) because the support tables needed for validation of SAFIS data are not maintained by the state. The exception is FL dealer reports, which are currently housed in a table on the Gulf States Marine Fisheries Commission (GSMFC) server. Since dealers from ME-VA that have federal dealer permits have an electronic reporting requirement, any dolphin landings from those states are extracted from SAFIS along with dolphin landings from NC-GA. Once the information extracted from the SAFIS server is combined with the FL data from the GSMFC server, the SEFSC has access to all Atlantic dolphin landings reported by federal dealers. When a dealer is not compliant with the reporting regulations, the CLM utilizes previous reports from the dealer to estimate the pounds that would have been reported.

Atlantic Dolphin Dealer Reporting Compliance

Over the course of the 2015 season, 64% of the dolphin landings were reported within 2 weeks of the landing date; 86% were reported within 35 days of the landing date and 14% of the landings were reported later than 35 days after the landing date (Figure 6). Of the dealer reports that were late, the average number of days late was 14 days (Table 2). Currently, the CLM shows that the Atlantic dolphin ACL is at 102%, with over 41,000 pounds estimated for delinquent dealers. The weight estimated for non-reporting dealers is approximately 3.5% of the total estimated landings for Atlantic dolphin.

Changes to the Parameters Used in ACL Monitoring

During monitoring of the Atlantic dolphin ACL in 2014, the SEFSC noticed that NC dealer reports were submitted with a generic “dolphinsfish” code which had not been included in ACL parameters for dolphin in 2014. This code covers the genus *Coryphaena* and should have been included with the codes for common dolphin and pompano dolphin. The SEFSC corrected this problem in 2015 by including the codes for both dolphin species as well as the code for the genus in the parameters used to summarize landings for the dolphin ACL. The SEFSC is working with commission and state partners and Bluefindata Inc. to remove the genus code from the available species codes in the electronic trip ticket software, so that dolphin must be reported to species by dealers.

Table 1. Mean, maximum, minimum, number of observations and standard deviation of mean pounds landed per trip in live weight by gear and year, 2010-2015.

Statistic	HOOK AND LINE						LONG LINES					
	2010	2011	2012	2013	2014	2015	2010	2011	2012	2013	2014	2015
MEAN	80.69	91.15	76.11	83.55	84.58	76.10	607.87	529.96	512.70	408.01	820.53	1,924.87
MAX	3,931.20	1,869.60	15,292.16	2,400.00	2,658.24	3,238.00	37,963.20	33,484.80	30,208.80	32,854.80	35,146.80	28,796.40
MIN	1.04	1.04	1.04	1.04	1.04	2.00	1.04	2.00	1.04	1.04	2.00	2.00
N	2,863	3,516	2,757	2,459	3,030	1,681	782	877	957	995	1,041	525
STD	159.91	144.87	314.35	127.60	136.75	132.90	2,426.89	2,222.48	2,034.84	1,462.86	2,625.05	3,966.22

Table 2. 2015 dealer reports of Atlantic dolphin landings submitted late and on time by period.

Period	Reports On Time	Reports Late	Average Days Late	Weight Reported On Time	Weight Reported Late	% Reports Late	% Weight Reported Late
1	44	24	12	3,273	5,043	35	60
2	73	8	17	6,421	2,191	9	25
3	58	24	29	8,663	4,311	29	33
4	37	7	17	2,285	1,780	15	43
5	59	15	15	6,884	5,395	20	43
6	80	32	19	6,449	14,155	28	68
7	105	40	17	13,822	14,722	27	51
8	202	46	12	15,243	15,747	18	50
9	403	54	11	248,885	56,965	11	18
10	564	73	16	388,676	82,130	11	17
11	489	82	13	159,129	28,996	14	15
12-14*	286	38	9	39,979	6,120	12	13
Total	2,400	443	Average:16	899,709	237,555		

*Period 12-14 combined because of confidentiality.

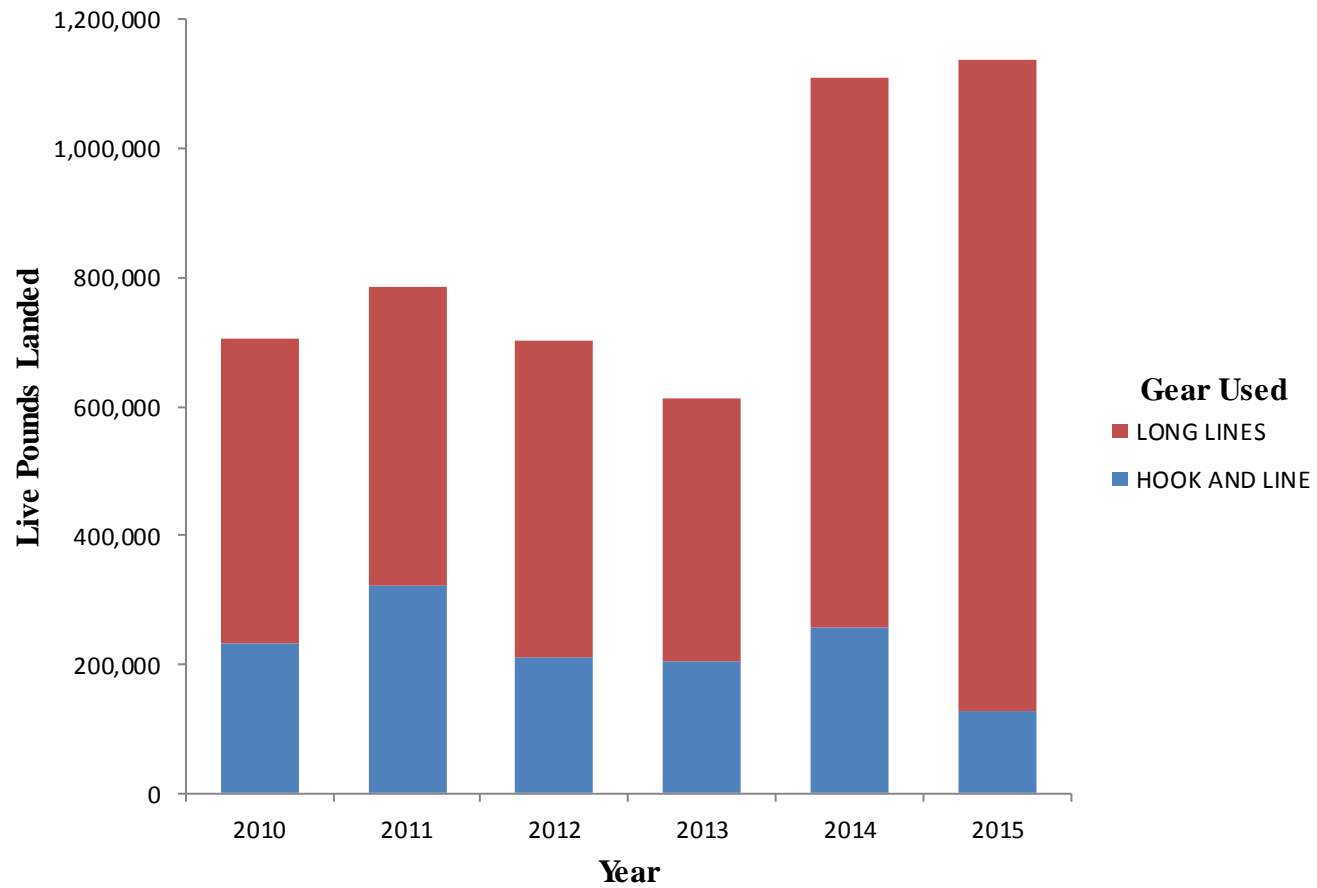


Figure 1. Atlantic dolphin landings in live weight by year and gear, 2010-2015.

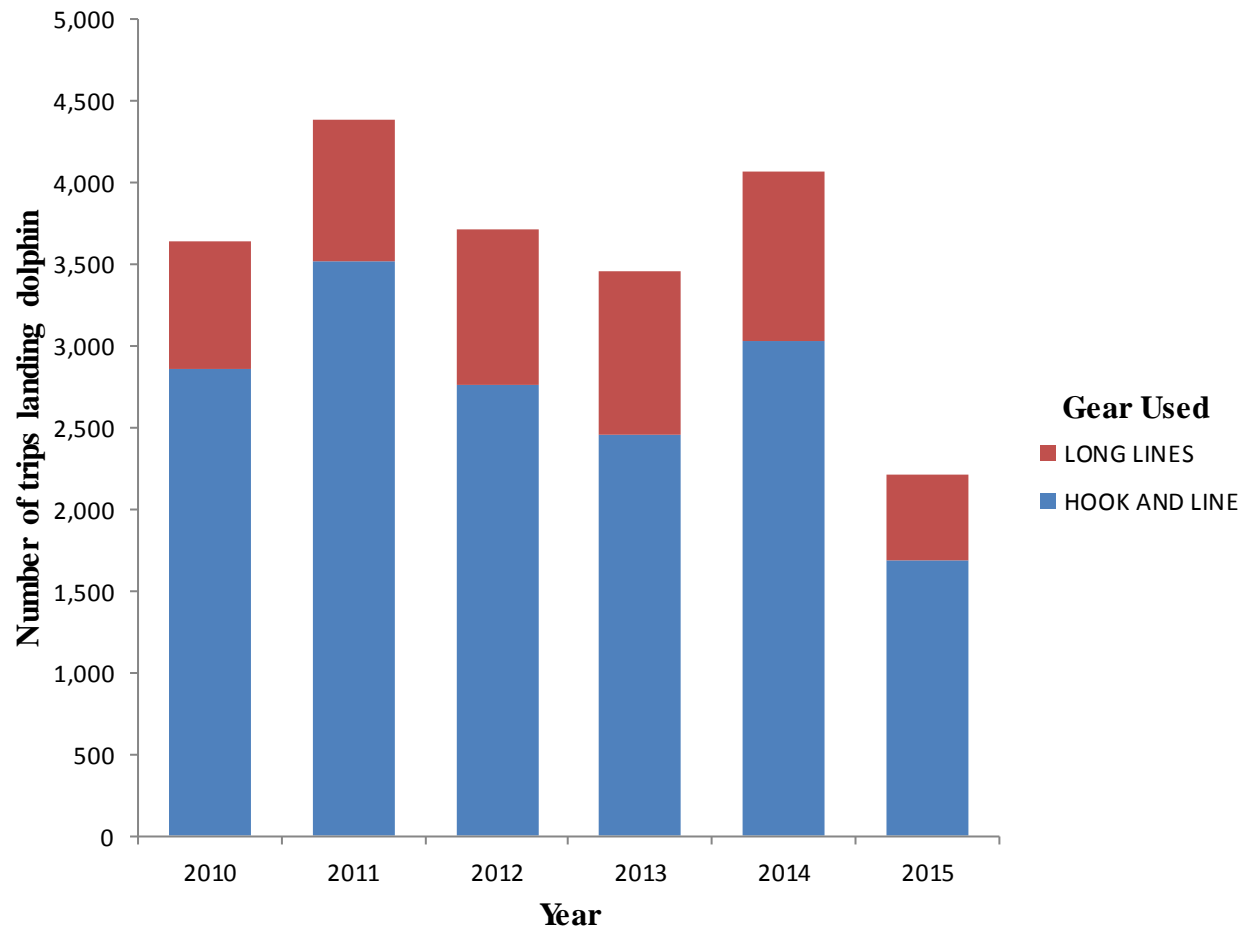


Figure 2. Number of trips landing Atlantic dolphin by year and gear, 2010-2015.

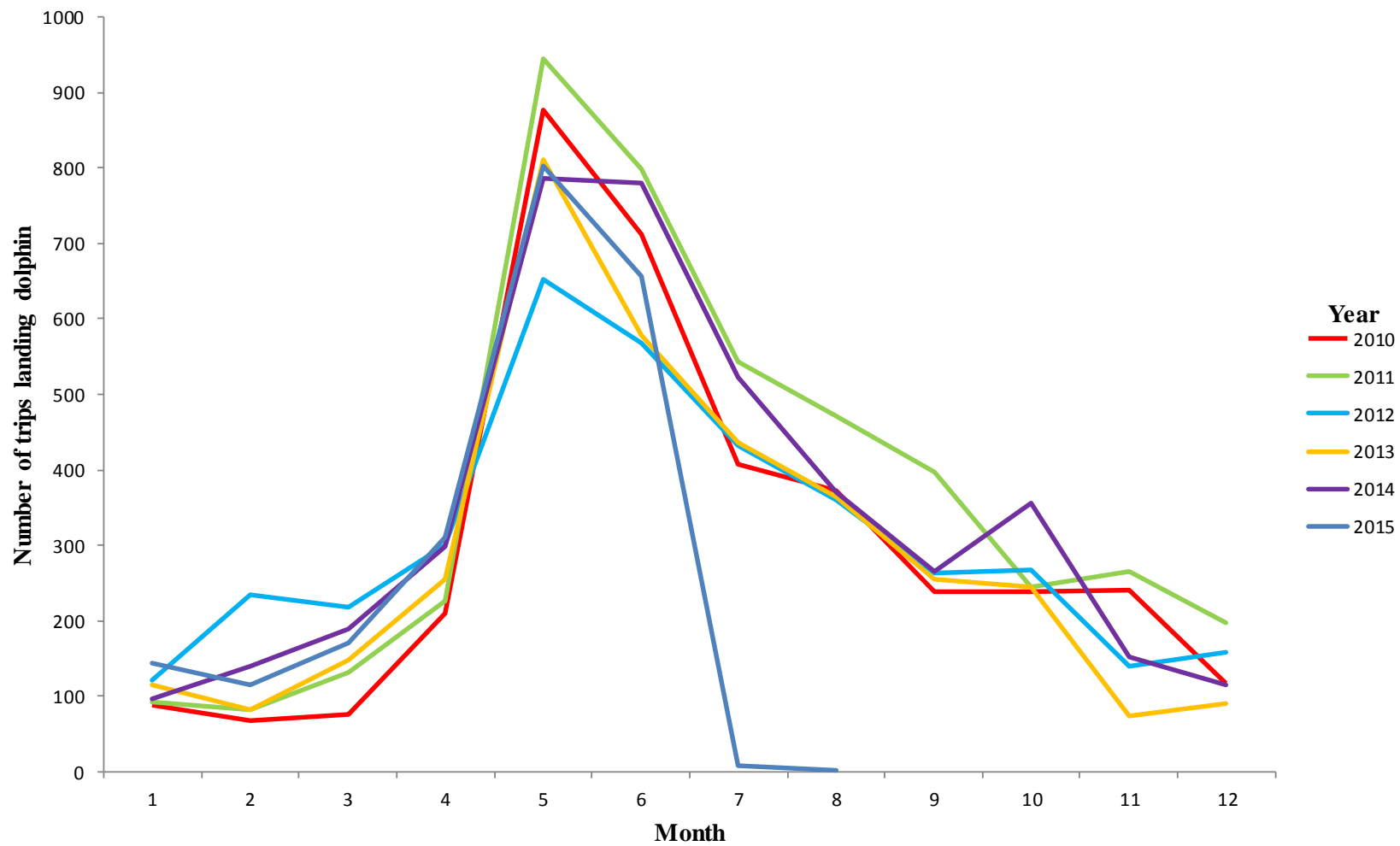


Figure 3. Number of trips landing Atlantic dolphin by month and year, 2010-2015.

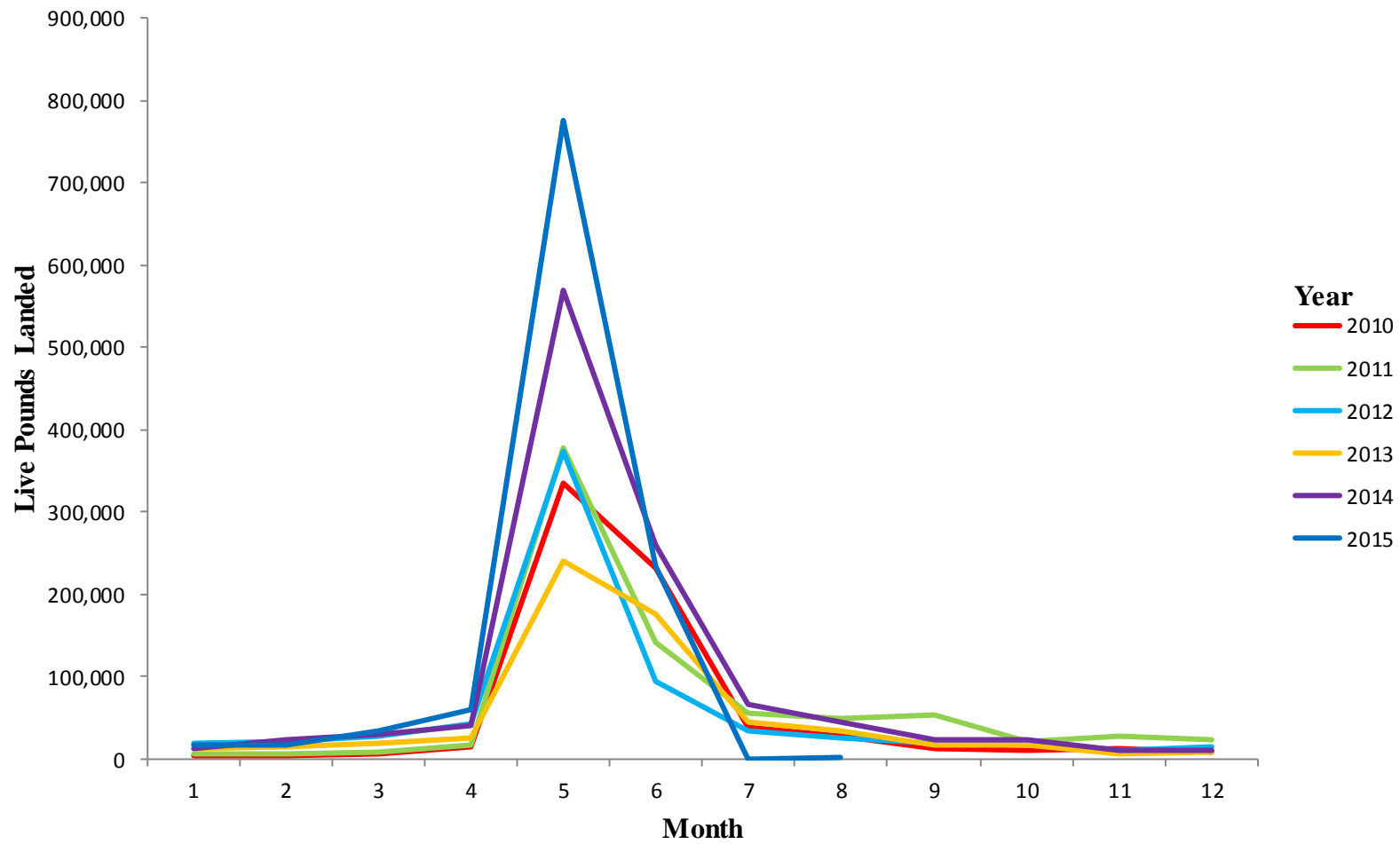


Figure 4. Atlantic dolphin landings in live weight by month and year, 2010-2015.

SE Region Dealer Reporting Pathway – 2/15/2015

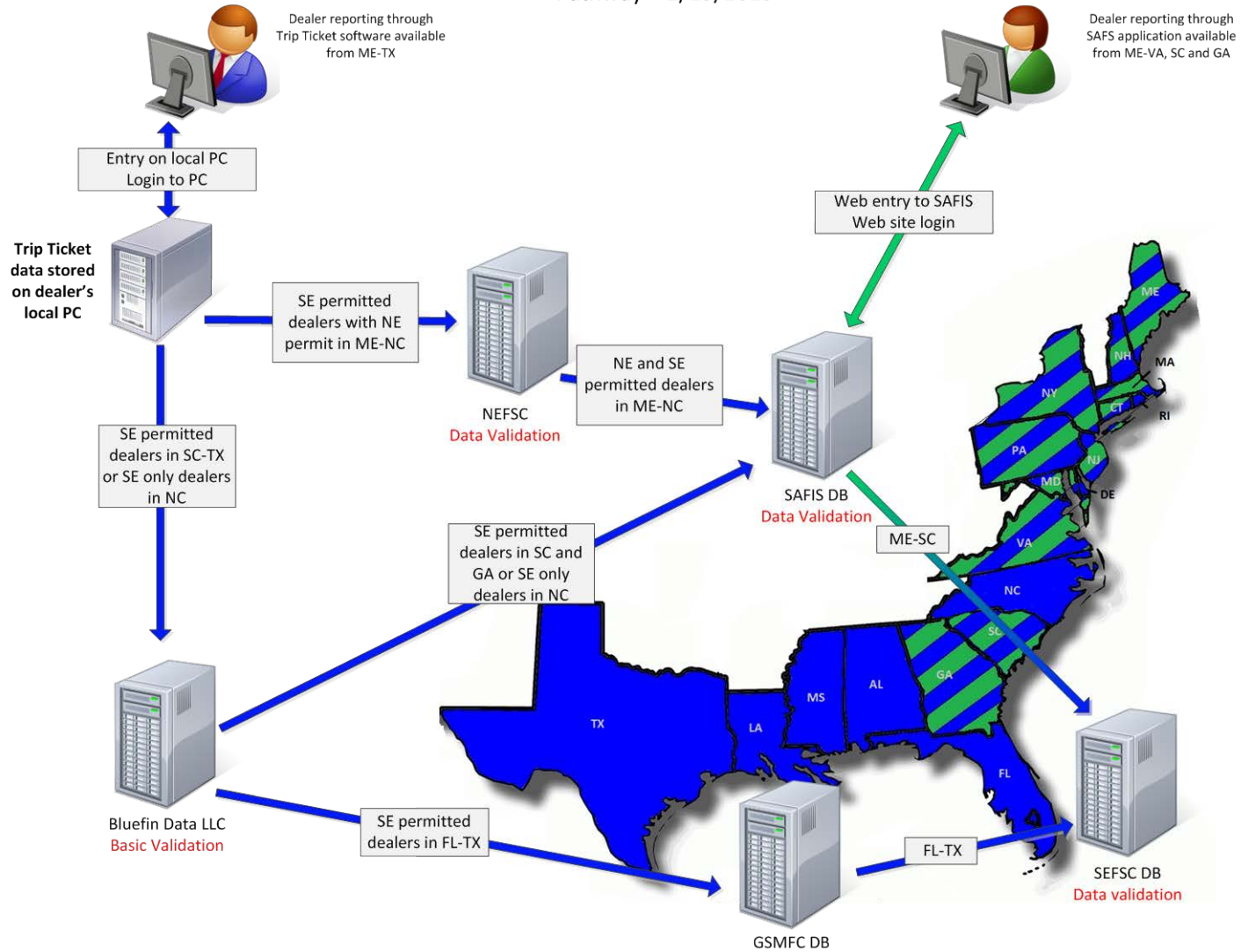


Figure 5. Representation of data flow from electronic dealer reporting.

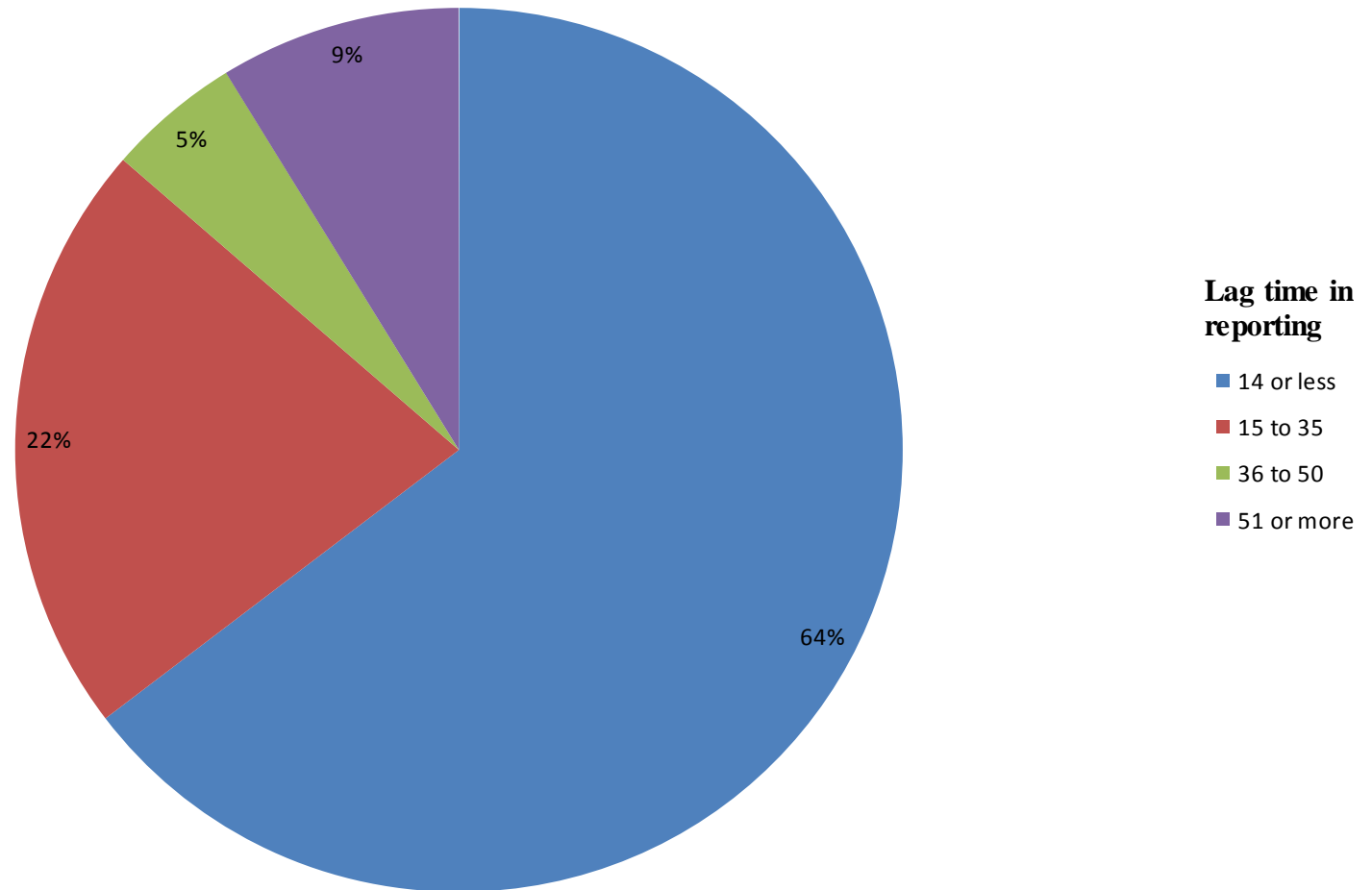


Figure 6. Percent of dolphin landed weight by lag time from landing date to date reported during the 2015 season.



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SEC-TJ-2015-SAC-3655

August 17, 2015

Mr. Robert Mahood
Executive Director
South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
North Charleston, SC 29405

Dear Mr. Mahood,

This letter pertains to your July 7, 2015 request for information on dolphin pounds landed by year, month, gear and state or region for 2010-2015. They are contained in the following attached files:

- 1) The Atlantic dolphin landings are tabulated in the Excel file: **ATL_DOLPHIN_SAFMC_2010_2015_08132015.xlsx**.
- 2) This is accompanied by the metadata file: **ATL DOLPHIN Landings metadata file 08013015.pdf**.
- 3) The report entitled, "Trends in Atlantic Dolphin Landings 2010-2015 and ACL Monitoring of Atlantic Dolphin by the SEFSC during the 2015 Season," is attached under the file name: **Trends in Atl Dolphin Landings_08132014.pdf**.

The attached files also include a report summarizing the data and responses to the following questions concerning ACL monitoring in 2015:

- 1) The integration of northeast dealer reports with the southeast dealer reports;
- 2) Species vs. family level dealer reporting of dolphin;
- 3) 2015 reporting compliance of federal dealers; and
- 4) Any insights we may have on why catches were higher this year than in previous years.

We did not include the information on logbook landings and reporting or stock identification as this information is not relevant to the ACL monitoring process used by the SEFSC.

Sincerely,



Bonnie Ponwith, Ph.D.
Science Director

cc:

F/SEC: Theo Brainerd, Peter Thompson, Sophia Howard
Stacy Hargrove, Tom Jamir, Steve Turner, Dave Gloeckner
F/SER: Roy Crabtree, Jack McGovern, Rick DeVictor
Monica Smit-Brunello
SAFMC: Ben Hartig, Robert Mahood, Gregg Waugh,