Atlantic Commercial Landings of blacknose, dusky, sandbar, unclassified, small coastal, and requiem sharks provided by the Atlantic Coastal Cooperative Statistics Program (ACCSP)

Christopher Hayes

Atlantic Coastal Cooperative Statistics Program

1444 Eye St. NW

Washington, DC 20011

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Summary

This working document was developed by the Atlantic Coastal Cooperative Statistics Program (ACCSP) to provide commercial landings of blacknose, dusky, sandbar, unclassified, small coastal, and requiem sharks from 1950 to 2009 to the Southeast Fisheries Science Center for the Southeast Data, Assessment, and Review (SEDAR) 21. Species-specific and non-specific data are presented by year, annually by gear, and annually by subregion.

Management History

In response to a 1989 request from all Atlantic Fishery Management Councils, the National Marine Fisheries Service (NMFS) developed and implemented the first Shark Fishery Management Plan (FMP) in 1993. The FMP developed commercial quotas and recreational bag and trip limits for some species. A finning prohibition (via the 5% rule: no more than 5% fins/dressed carcass could be landed), a trip reporting mandate, and an observer program were also included in the 1993 FMP. The quota was

exceeded in the first two semi-annual seasons, so a 1994 rule established commercial trip limit and provided for fishery closures when the quotas were reached.

The 1996 assessment found little evidence of rebuilding, and NMFS responded by cutting the commercial quota in half and further restricting the recreational catch in 1997. Additionally, NMFS prohibited possession of several rare shark species. A 1998 court ruled that NMFS must consider the economic effects of the quota reduction, and NMFS found that while the new quota had significant impact on small entities, there were no available alternatives that would reduce the economic Impact and ensure shark stocks viabilities.

The 1998 assessment showed stocks were overfished and would not recover with the established quotas, so NMFS provided the 1999 FMP which reduced quotas and recreational retention limits, expanded the prohibited species, and included over/under harvest seasonal adjustments. Lawsuits lead to several peer reviews, which found that the conclusions and management recommendations were not based on the best available science. In 2002, NMFS implemented an emergency rule blocking some provisions of the 1999 FMP, including reverting to the 1997 commercial quotas.

The 2002 assessment estimated that the large coastal shark (LCS) complex was still overfished and experiencing overfishing, but some stocks within the complex were rebuilt. An emergency rule allowed the LCS complex to be managed in two groups (ridgeback/non-ridgeback) and counted all mortality (including discards).

A SEDAR was conducted for LCS in 2006 and small coastal sharks (SCS) in 2007 determined that the complexes were not overfished or experiencing overfishing, but some species were. Species specific provisions were implemented including: 1) sandbar sharks were prohibited except for a small research fishery and 2) blacknose sharks were managed separate from the SCS and prohibited from recreational possession.

Commercial Landings

The Atlantic Coastal Cooperative Statistics Program (ACCSP) is a cooperative state-federal program to design, implement, and conduct marine fisheries statistics data collection programs and to integrate those data into a single data management system that strive to meet the needs of fishery managers, scientists, and fishermen. The Data Warehouse is an on-line database populated with fisheries-dependant data supplied by the Program Partners, including NMFS, all states from Maine to Florida, and other agencies. Data submitted by the Program Partners are harmonized into one integrated data set using the collaboratively derived coding standards (for variables such as species, gear and fishing area).

Generally, the all data prior to 1986 come directly from NMFS. Each state implemented trip-level reporting at various times (Table 1), however, as of 2009, all states reported at the trip level. These trip-level data provide the greatest resolution of the activities of commercial fisheries. Additionally, for several partners, we merge dealer reports with fisherman trip reports to provide the best overall picture of harvests. The merge includes fisherman acting as dealers or retentions that may not be included in dealer reports. Commercial landings data are displayed in thousands (Table 2) due to confidentiality issues. Much more detailed data are available with confidential access to all partners' data. Additionally, actual landings statistics are not presented by region or gear (due to confidentiality), only proportions are displayed below.

Commercial shark landings data from the southeast were reported to ACCSP from 1) the NMFS Commercial Landings System (CLS) from 1950 to 1961, 2) the NMFS General Canvass (GENCAN) from 1962 to 1977, 3) the NMFS Accumulated Landings System (ALS) from 1978 to 2003, and 4) exclusively the southeastern states from 2004 forward. Florida, Georgia, North Carolina, and South Carolina began reporting directly to ACCSP in 1986, 1989, 1994, and 2004, respectively. Georgia sent monthly

summaries from 1989 to 2000, but all other data are housed in the Data Warehouse at the trip level. However, updates are likely missing from the North Carolina data set.

Shark data from the northeast were reported to ACCSP from 1) the NMFS Commercial Landings System (CLS) from 1950 to 1961, 2) the NMFS General Canvass (GENCAN) from 1962 to 1989, 3) NMFS Headquarters Monthly Summaries from 1990 to 1993, 4) NMFS Commercial Data Entry Sumsystem (CODES) from 1994 to 2006, and 5) Standard Atlantic Fisheries Information System (SAFIS) from 2007 to 2009. Some states provided supplemental trip report data that were merged with SAFIS dealer reports.

The vast majority (85%) of the landings of blacknose sharks between 1994 and 2009 took place in the south Atlantic (Figure 1). Over the same time period, 70% of landings came from gillnets and 27% of landings were from longlines (Figure 2). Landings of blacknose sharks peak in 2000.

Between 1985 and 2009 about half of dusky sharks were landed in the mid-Atlantic region, and 38% were landed in the south Atlantic, and 11% from the west coast of Florida – though there are no landings in any region after 2007 (Figure 3). The majority (79%) of the commercial landings in this time period are from longlines, with gillnets accounting for 15% (Figure 4). Commercial landings of this species also peak in 2000.

From 1987 to 2009, sandbar shark landings are split closely between the west coast of Florida (48%) and the south Atlantic (46%). Additionally, 6% were landed in the mid-Atlantic and >1% in the north Atlantic (Figure 5). The majority of those landings (85%) were from longlines, and gillnets accounted for 4% of landings (Figure 6). Sandbar shark landings peak in 1995, 2002, and 2006 before dropping steeply due to regulatory changes.

Of unclassified sharks (i.e. sharks, requiem sharks, and small coastal sharks) landings between 1950 and 2009, 43%, 36%, 15%, and 5% of the landings were from the south Atlantic, west coast of Florida, mid-Atlantic, and north Atlantic, respectively (Figure 7). Longlines accounted for 37%, gillnets

for 17%, trawls for 5%, and hand lines for 4% of those landings with the remaining 37% of landings coming from other gears (Figure 8).

References

Cortés, E. and J.A. Neer. 2005. Updated catches of Atlantic sharks. Working Document SEDAR-11-DW-16 of the 2005 Large Coastal Shark Data Workshop, Panama City, FL, October-November 2005, 58 p.

Tables

Table 1. ACCSP Data Warehouse shark commercial landings data sources by year.

Source	From	To
Commercial Landings System	1950	1961
General Canvass	1962	1989
General Canvass - S. Atl and Gulf	1962	1977
Accumulated Landings System	1978	2003
Florida MFIN	1986	2009
Georgia	1989	2009
NMFS HQ Monthly Summaries ME to VA	1990	1993
NMFS NE CODES	1994	2006
North Carolina	1994	2008
South Carolina	2004	2009
DE - MERGE	2007	2009
SAFIS	2007	2009
VA - MERGE	2007	2009
MD - FISHERMAN_TRIPS	2008	2009

Table 2. Commercial landings of blacknose, dusky, sandbar, unclassified, small Coastal, and requiem sharks in thousands of pounds (whole weight) for the U.S. Atlanic coast and the west coast of Florida.

YEAR	SHARK, UNCLASSIFIED	SHARK, BLACKNOSE	SHARK, DUSKY	SHARK, SANDBAR	SHARK, SMALL COASTAL SPECIES	SHARKS, REQUIEM
1950	800					
1951	613					
1952	626					
1953	590					
1954	439					
1955	425					
1956	321					
1957	338					
1958	1,230					
1959	1,568					
1960	187					
1961	802					
1962	158					
1963	177					
1964	169					
1965	219					
1966	268					
1967	1,449					
1968	159					
1969	154					
1970	78					
1971	76					
1972	131					
1973	440					
1974	190					
1975	250					
1976	232					
1977	403					
1978	583					
1979	365					
1980	992					
1981	1,239					
1982	1,174					
1983	1,420					
1984	1,999					
1985	2,058		7		2	
1986	608		0		2,649	
1987	906		0	1	4,848	
1988	1,099		2	5	5,573	
1989	2,024		1	3	7,144	

1990	1,287		56	100	7,435	
1991	1,457		46	923	5,337	
1992	2,772		197	1,114	4,861	
1993	3,475		84	941	2,621	
1994	3,416	9	120	1,698	2,419	
1995	2,195	49	178	2,711	2,963	
1996	1,770	160	161	2,069	2,289	
1997	976	228	61	1,254	1,383	
1998	618	167	63	1,429	810	
1999	739	146	160	1,835	961	
2000	662	242	211	2,069	707	
2001	930	220	1	1,961	638	
2002	758	201	12	2,593	660	
2003	716	98	32	1,999	839	
2004	409	84	1	1,798	614	81
2005	302	100	1	1,775	690	66
2006	114	103	6	2,159	731	78
2007	286	94	3	967	109	30
2008	213	157	0	127	73	20
2009	13	104	0	232	54	8
Grand Total	50,067	2,162	1,403	29,763	56,410	283

Figures

Figure 1. Proportion of Blacknose shark landings by region for South Atlantic and Florida west coast from 1994 to 2009.

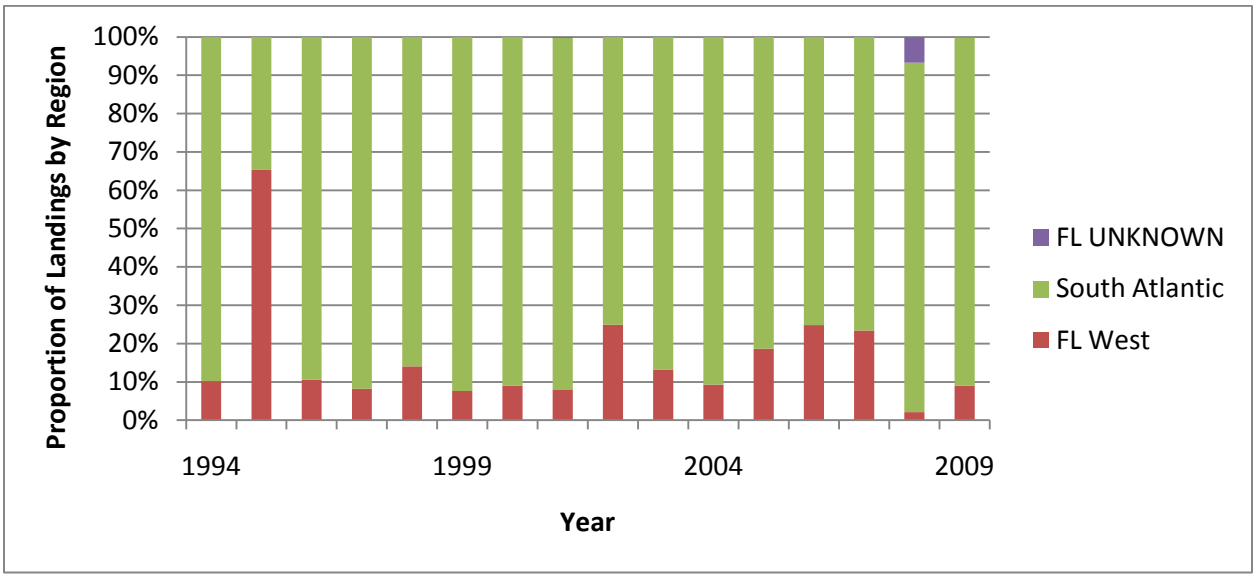

Figure 2. Proportion of Blacknose shark landings by gear for South Atlantic and Florida west coast from 1993 to 2009.

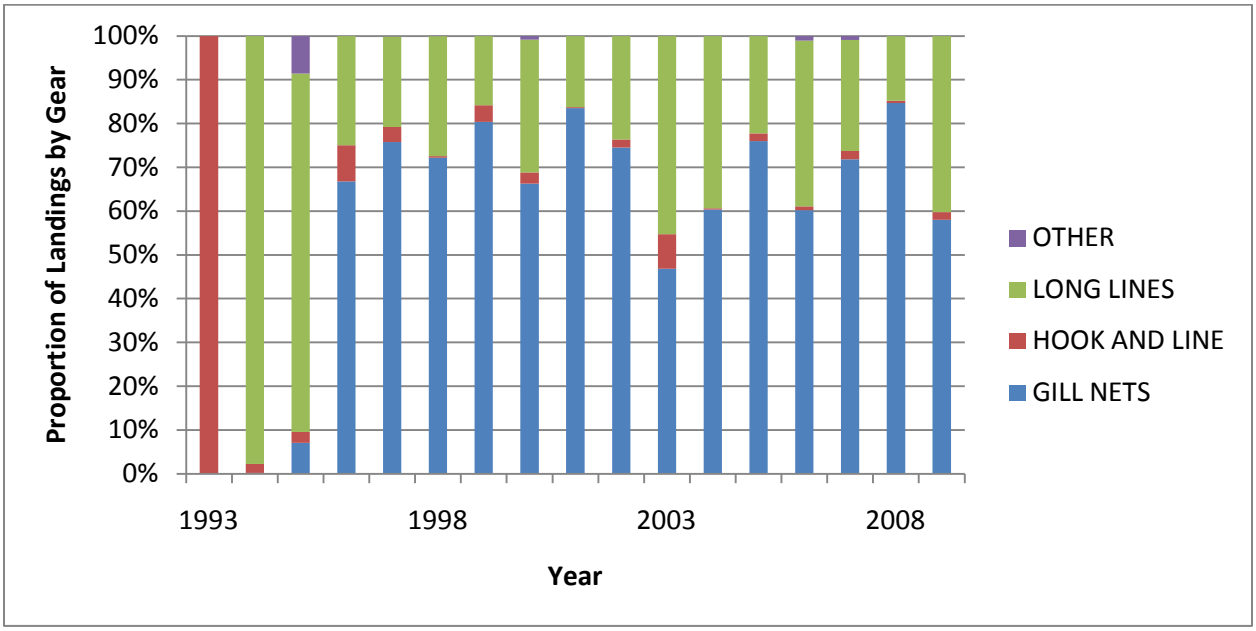

Figure 3. Proportion of Dusky shark landings by region for the Atlantic and Florida west coast from 1985 to 2009.

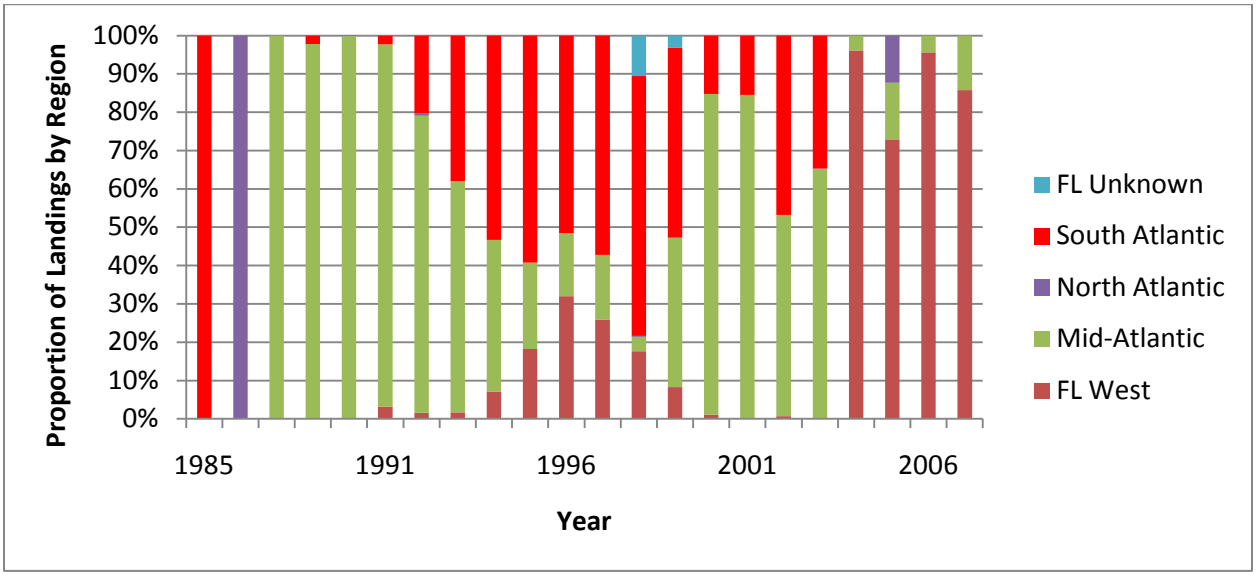

Figure 4. Proportion of Dusky shark landings by gear for the Atlantic and Florida west coast from 1985 to 2009.

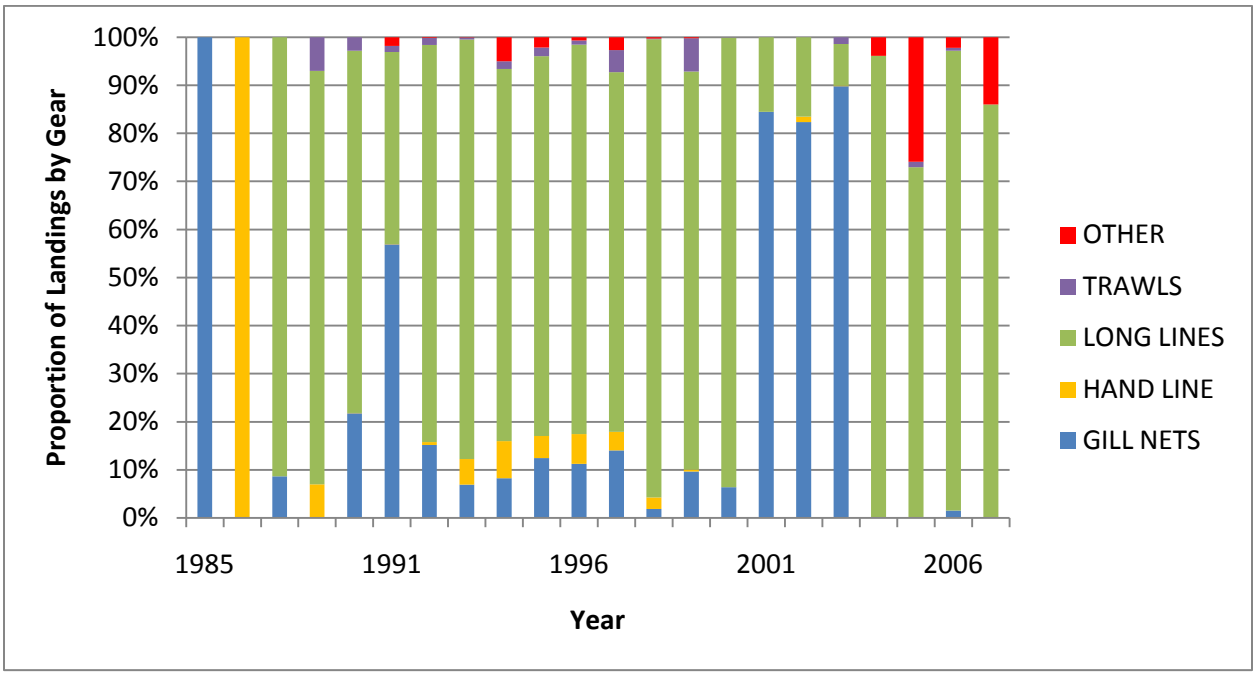

Figure 5. Proportion of Sandbar shark landings by region for the Atlantic and Florida west coast from 1987 to 2009.

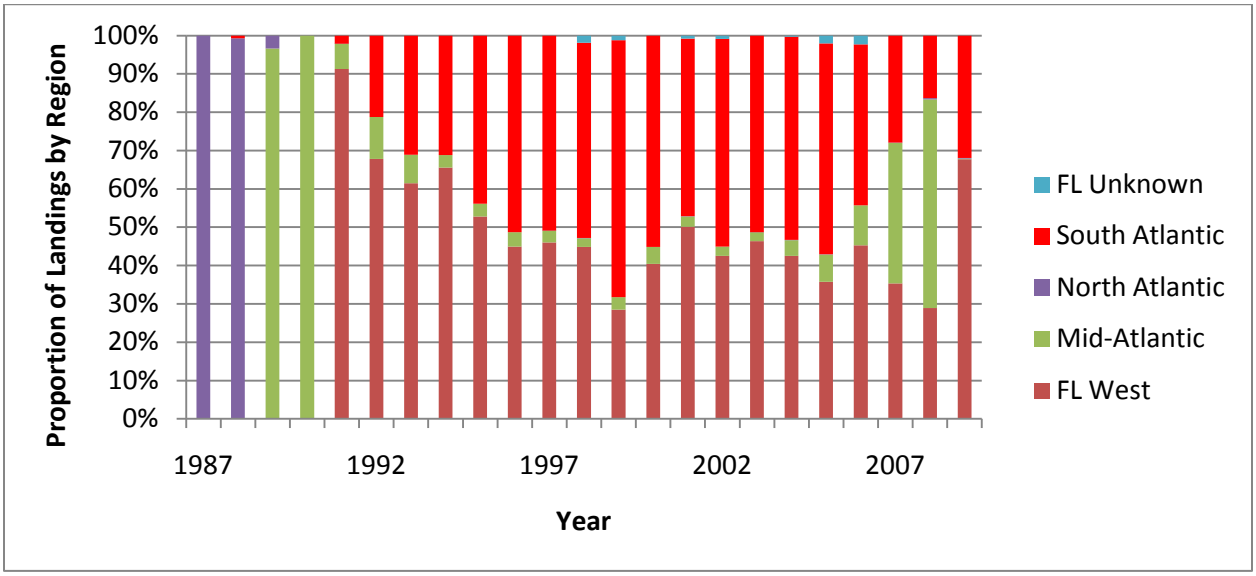

Figure 6. Proportion of Sandbar shark landings by gear for the Atlantic and Florida west coast from 1987 to 2009.

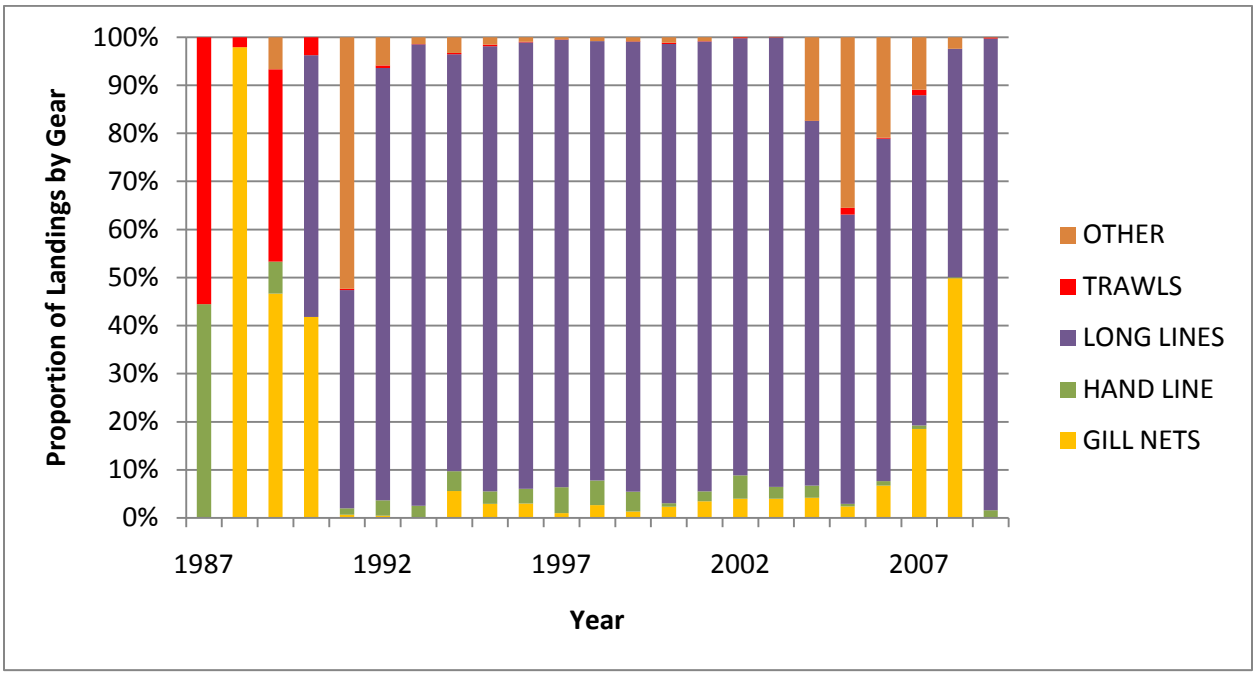

Figure 7. Proportion of Unclassified shark landings by region for the Atlantic and Florida west coast from 1950 to 2009.

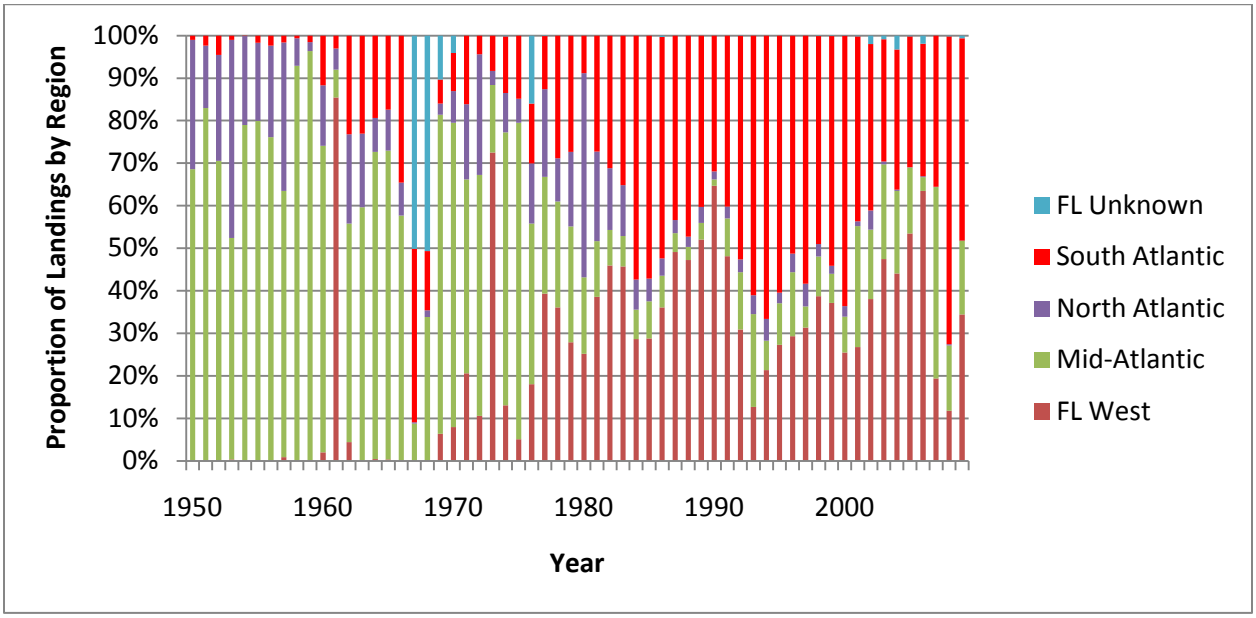

Figure 8. Proportion of unclassified shark landings by gear for the Atlantic and Florida west coast from 1950 to 2009.