

# **PIFSC Report on the Logbook Program for the American Samoa Longline Fishery January-March 2011<sup>1</sup>**

Fisheries Research and Monitoring Division  
Pacific Islands Fisheries Science Center

Summary statistics of American Samoa longline catch and effort for the first quarter of 2011, based on date of haul, are shown in Table 1. This table is derived from all federal logbook data submitted by American Samoa-based longline vessels as of May 12, 2011. The table entries reflect about 96% of the monitored trip effort for both large and small longline vessels for the quarter. Compared to the first quarter of 2010, the number of active vessels in the first quarter of 2011 decreased 17%, from 23 vessels to 19 (Fig. 1).

The 19 vessels that were active during the first quarter of 2011 made 559 sets and deployed 1,572,965 hooks. Compared with results for the first quarter of 2010, the number of sets decreased by 26% (Fig. 2) and the number of hooks used decreased by 28% (Fig. 3). The average number of hooks used per set decreased by 3%, from 2,893 to 2,841.

The total catch for all species combined was 28,072 fish, a decrease of 5% compared to the first quarter of 2010 (Fig. 4). Albacore continued to dominate the catch with 11,340 albacore caught in the first quarter of 2011; this was a decrease of 40% from the first quarter of 2010 (Fig. 5). Catches of all other tuna species increased; yellowfin tuna catch increased by 251% (Fig. 8), skipjack catch increased by 142% (Fig. 7), and bigeye tuna catch increased 52% (Fig. 6). Catches of all non-tuna species decreased compared to the first quarter of 2010; mahimahi decreased by 47% (Fig. 9), wahoo decreased 34% (Fig. 10), billfish decreased 43% (Fig. 11), and shark catch declined by 2% (Fig. 12).

Since the total fish catch decreased by 5%, while the number of hooks used decreased by 28%, the overall catch per unit of effort (CPUE), measured in catch per 1000 hooks, increased. Compared to the first quarter of 2010, the CPUE for yellowfin tuna, skipjack, bigeye tuna and shark increased, while the CPUE for albacore and all other species declined. CPUE for yellowfin tuna increased by 386% (Fig. 16), skipjack increased by 235% (Fig. 15), bigeye tuna increased by 110% (Fig. 14), and shark increased by 34% (Fig. 20). CPUE for albacore decreased by 16% (Fig. 13), mahimahi declined by 33% (Fig. 17), billfish declined by 21% (Fig. 19), and wahoo CPUE declined by 8% (Fig. 18).

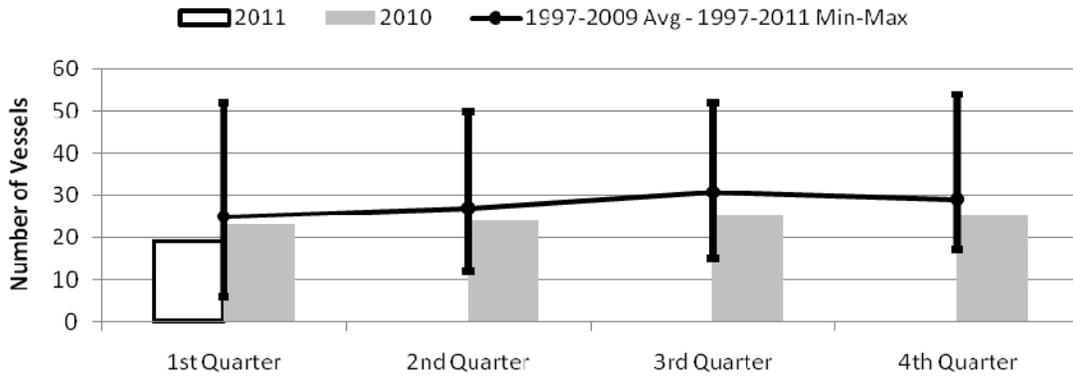
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<sup>1</sup> PIFSC Data Report DR-11-008  
Issued 31 May 2011

**Table 1. Summary of fish catch and nominal fishing effort by American Samoa Longline vessels during the first quarter of 2011 based on longline logbooks submitted before May 12<sup>th</sup> 2011.**

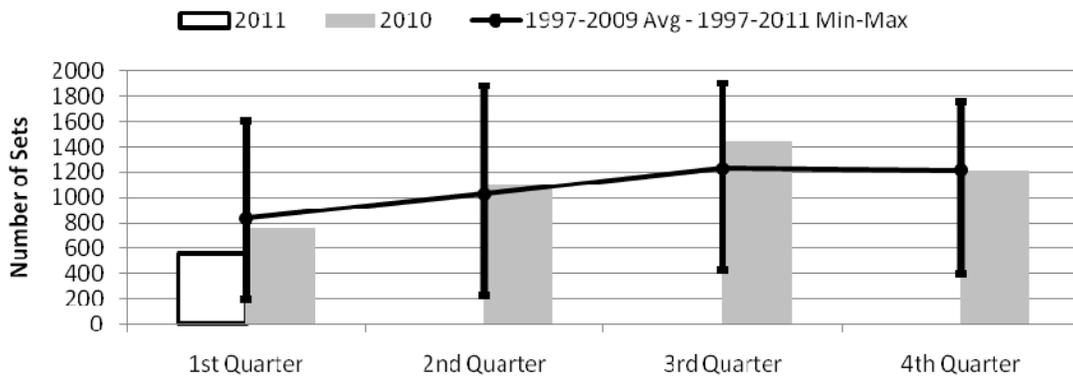
<b>TRIP INFORMATION</b>				
Number of Vessels:	19			
Number of Trips:	48			
Number of Sets:	559			
1000's of Hooks Set:	1,573			
Number of Light Sticks Used:	704			
<b>CATCH INFORMATION</b>				
<b>Species</b>	<b>Number Caught</b>	<b>Number Kept</b>	<b>Number Released</b>	<b>Number Caught per 1000 Hooks</b>
<b>BILLFISH</b>				
Black marlin	2	1	1	0.00
Blue marlin	367	151	216	0.23
Striped marlin	20	2	18	0.01
Sailfish	51	12	39	0.03
Spearfish	110	3	107	0.07
Swordfish	45	23	22	0.03
<b>TOTAL BILLFISH</b>	<b>595</b>	<b>192</b>	<b>403</b>	<b>0.38</b>
<b>SHARKS</b>				
Blue shark	535	1	534	0.34
Shortfin mako shark	22	0	22	0.01
Thresher shark	32	1	31	0.02
White tip oceanic shark	204	2	202	0.13
Sharks (unknown)	77	3	74	0.05
<b>TOTAL SHARKS</b>	<b>870</b>	<b>7</b>	<b>863</b>	<b>0.55</b>
<b>TUNA</b>				
Albacore tuna	11,340	11,310	30	7.21
Bigeye tuna	959	917	42	0.61
Bluefin tuna	18	18	0	0.01
Skipjack tuna	6,058	5,782	276	3.85
Yellowfin tuna	5,427	5,298	129	3.45
<b>TOTAL TUNA</b>	<b>23,802</b>	<b>23,325</b>	<b>477</b>	<b>15.13</b>
<b>OTHER PELAGICS</b>				
Mahimahi	69	68	1	0.04
Moonfish	53	13	40	0.03
Oilfish	947	7	940	0.60
Pomfret	61	21	40	0.04
Wahoo	1,616	1,594	22	1.03
<b>TOTAL OTHER PELAGICS</b>	<b>2,746</b>	<b>1,703</b>	<b>1,043</b>	<b>1.75</b>
<b>NON-PMUS</b>				
Pelagic fishes (unknown)	59	0	59	0.04
<b>TOTAL NON-PMUS</b>	<b>59</b>	<b>0</b>	<b>59</b>	<b>0.04</b>
<b>TOTAL ALL SPECIES</b>	<b>28,072</b>	<b>25,227</b>	<b>2,845</b>	<b>17.85</b>

**Figure 1. American Samoa Longline Vessels Submitting Logs by Quarter for**



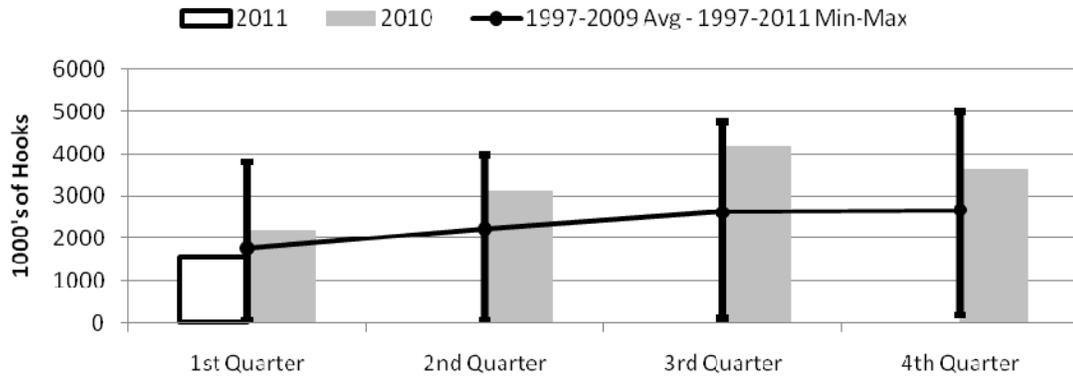
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	19	0	0	0
2010	23	24	25	25
1997-2011 Max	52	50	52	54
1997-2009 Avg	25	27	31	29
1997-2011 Min	6	12	15	17

**Figure 2. Number of Sets by American Samoa Longline Vessels by Quarter for**



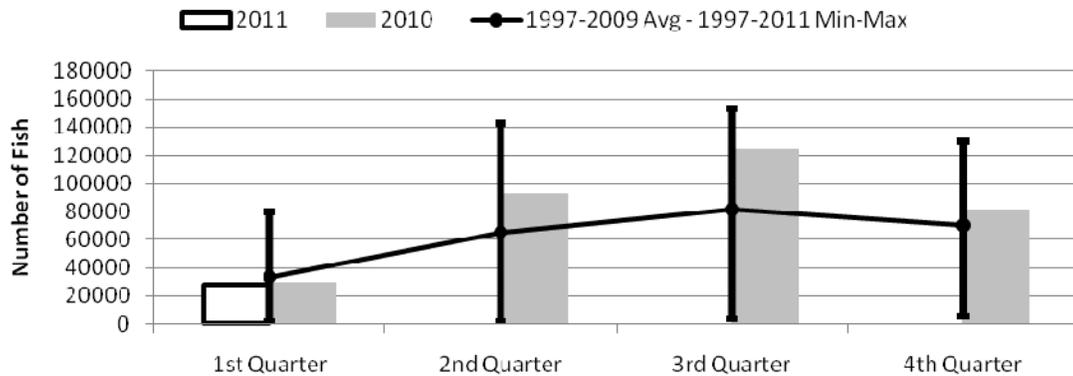
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	559	0	0	0
2010	756	1,098	1,439	1,203
1997-2011 Max	1,602	1,886	1,904	1,758
1997-2009 Avg	836	1,028	1,228	1,215
1997-2011 Min	192	223	424	402

**Figure 3. Number of Hooks Set by the American Samoa Longline Fleet by Quarter for**



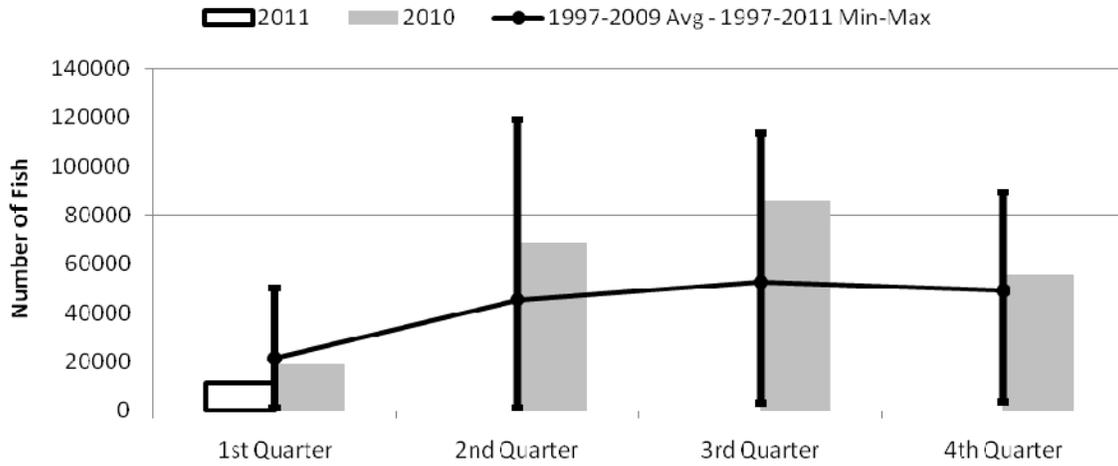
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1,573	0	0	0
2010	2,187	3,113	4,158	3,609
1997-2011 Max	3,805	3,993	4,769	4,985
1997-2009 Avg	1,766	2,234	2,617	2,669
1997-2011 Min	41	51	101	175

**Figure 4. American Samoa Longline Total Catch (All Species) by Quarter for**



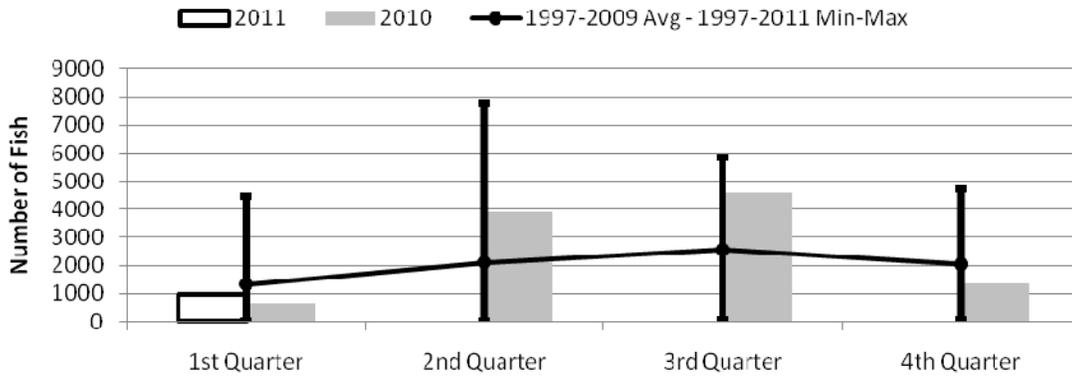
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	28,072	0	0	0
2010	29,416	92,191	124,233	81,343
1997-2011 Max	79,567	142,603	153,301	130,238
1997-2009 Avg	33,570	65,425	81,478	70,315
1997-2011 Min	1,315	1,416	4,127	5,204

**Figure 5. American Samoa Longline Albacore Catch by Quarter for**



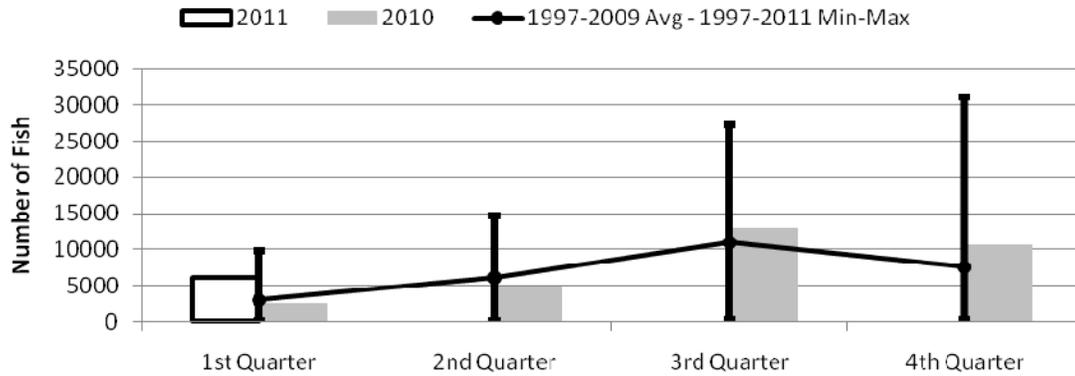
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	11,340	0	0	0
2010	18,828	68,028	85,638	55,282
1997-2011 Max	50,382	118,994	113,831	89,389
1997-2009 Avg	21,314	45,402	52,663	49,189
1997-2011 Min	940	851	3,182	3,466

**Figure 6. American Samoa Longline Bigeye Tuna Catch by Quarter for**



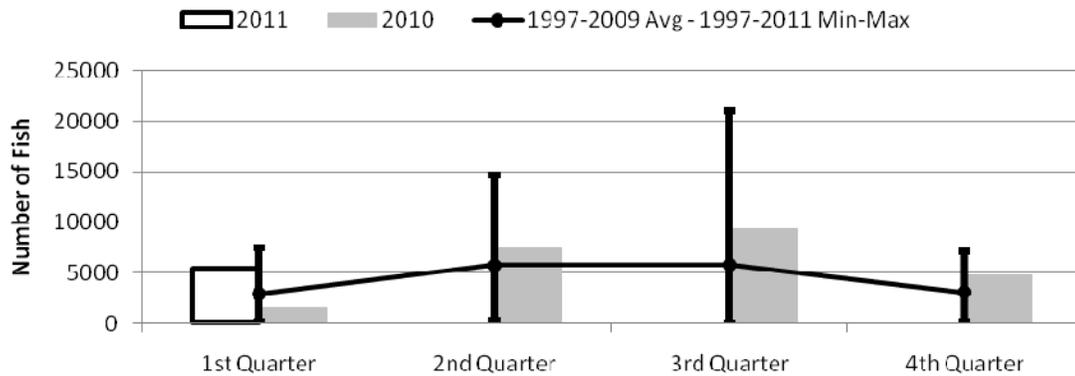
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	959	0	0	0
2010	633	3,875	4,566	1,345
1997-2011 Max	4,466	7,785	5,824	4,728
1997-2009 Avg	1,333	2,110	2,559	2,042
1997-2011 Min	6	26	55	55

**Figure 7. American Samoa Longline Skipjack Tuna Catch by Quarter for**



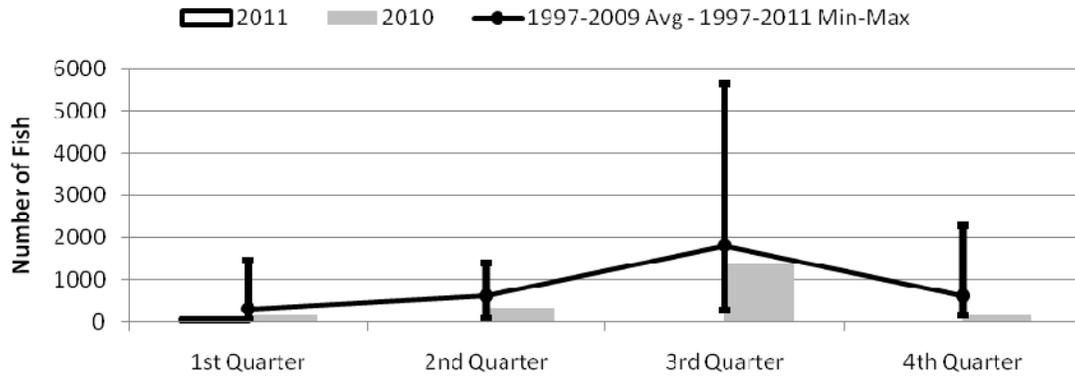
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	6,058	0	0	0
2010	2,506	4,936	12,919	10,598
1997-2011 Max	9,809	14,606	27,234	31,191
1997-2009 Avg	3,033	6,105	11,003	7,575
1997-2011 Min	115	6	244	178

**Figure 8. American Samoa Longline Yellowfin Tuna Catch by Quarter for**



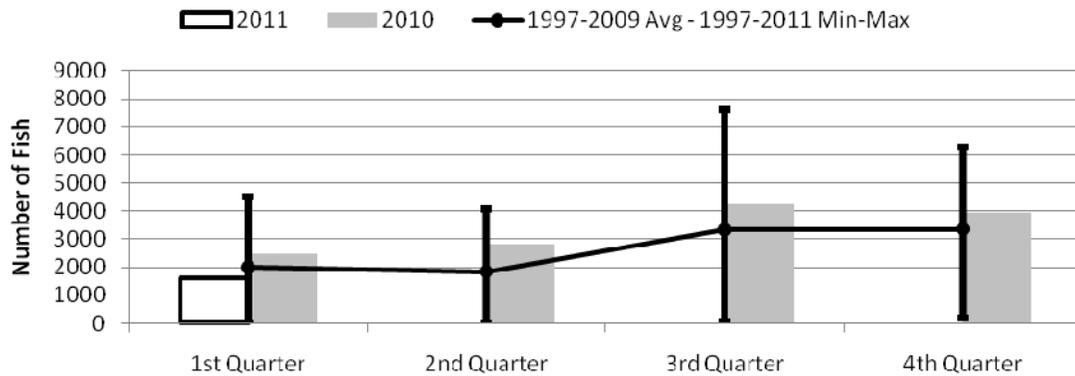
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	5,427	0	0	0
2010	1,547	7,376	9,295	4,745
1997-2011 Max	7,428	14,681	20,993	7,104
1997-2009 Avg	2,909	5,756	5,820	3,079
1997-2011 Min	213	356	84	177

**Figure 9. American Samoa Mahimahi Catch by Quarter for**



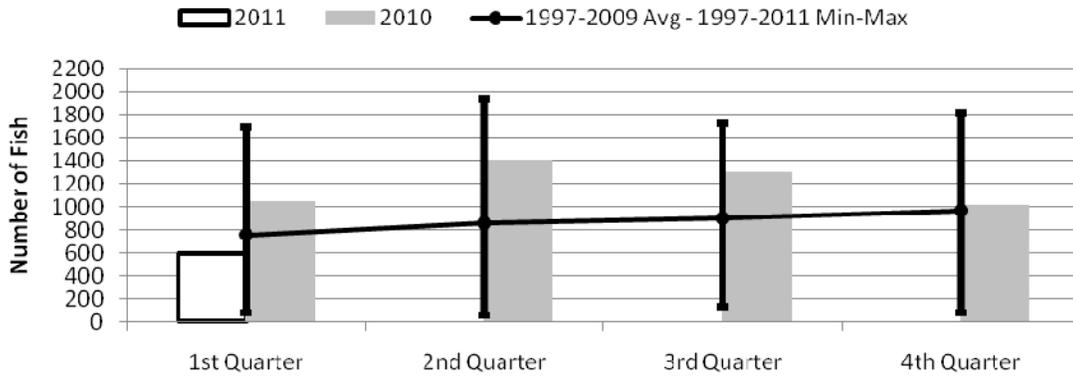
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	69	0	0	0
2010	131	311	1,367	146
1997-2011 Max	1,455	1,391	5,642	2,297
1997-2009 Avg	308	612	1,811	620
1997-2011 Min	30	59	280	146

**Figure 10. American Samoa Wahoo Catch by Quarter for**



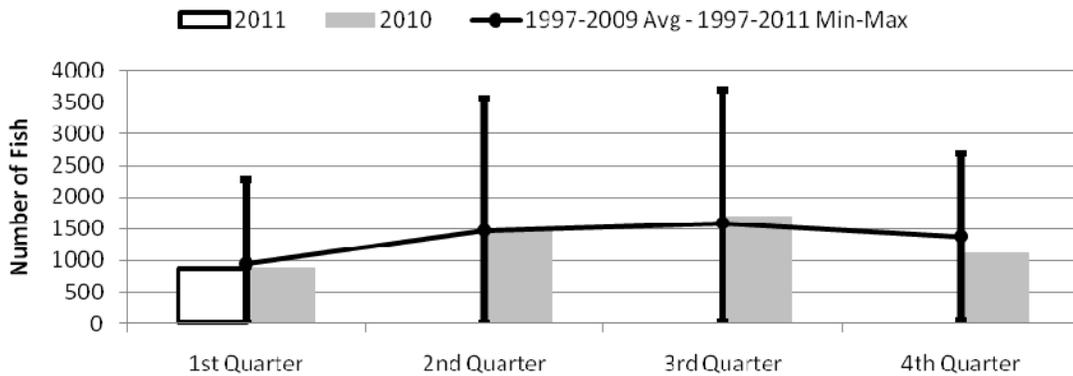
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1,616	0	0	0
2010	2,441	2,810	4,220	3,935
1997-2011 Max	4,524	4,076	7,629	6,281
1997-2009 Avg	2,012	1,844	3,336	3,358
1997-2011 Min	27	20	68	210

**Figure 11. American Samoa Billfish Catch by Quarter for**



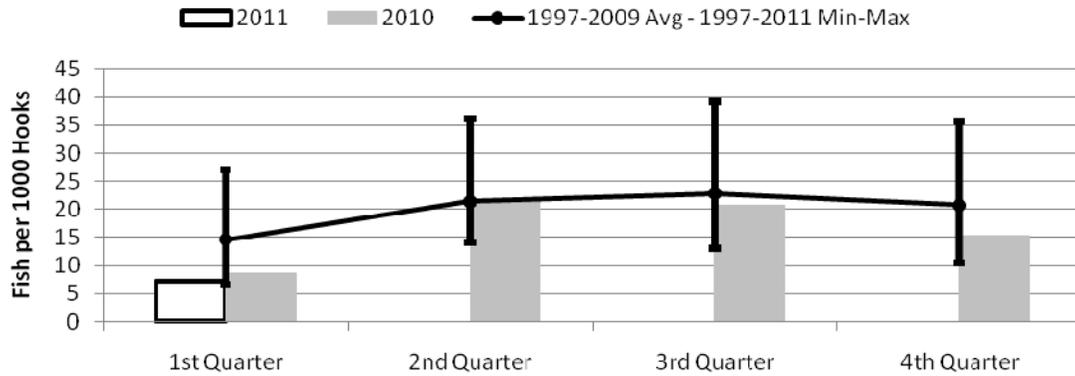
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	595	0	0	0
2010	1,043	1,404	1,297	1,010
1997-2011 Max	1,692	1,934	1,729	1,819
1997-2009 Avg	757	861	903	969
1997-2011 Min	83	58	132	84

**Figure 12. American Samoa Shark Catch by Quarter for**



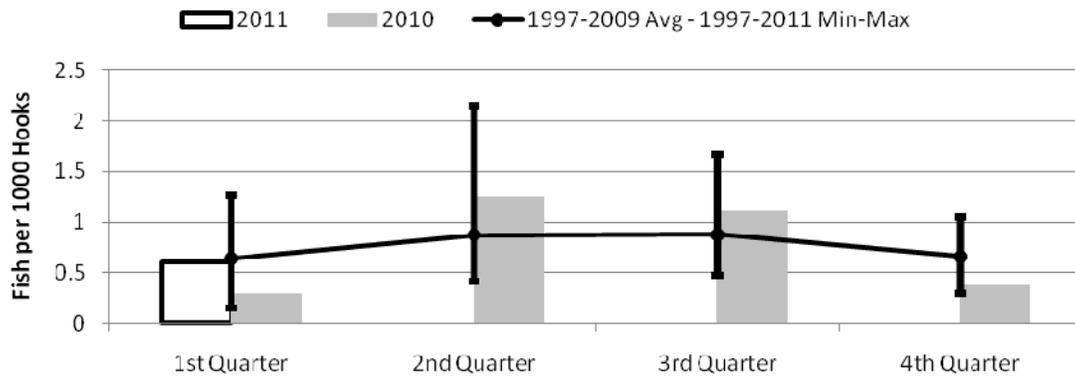
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	870	0	0	0
2010	887	1,449	1,682	1,110
1997-2011 Max	2,262	3,562	3,686	2,695
1997-2009 Avg	948	1,474	1,587	1,379
1997-2011 Min	5	16	26	49

**Figure 13. American Samoa Longline Albacore Catch per 1000 Hooks by Quarter for**



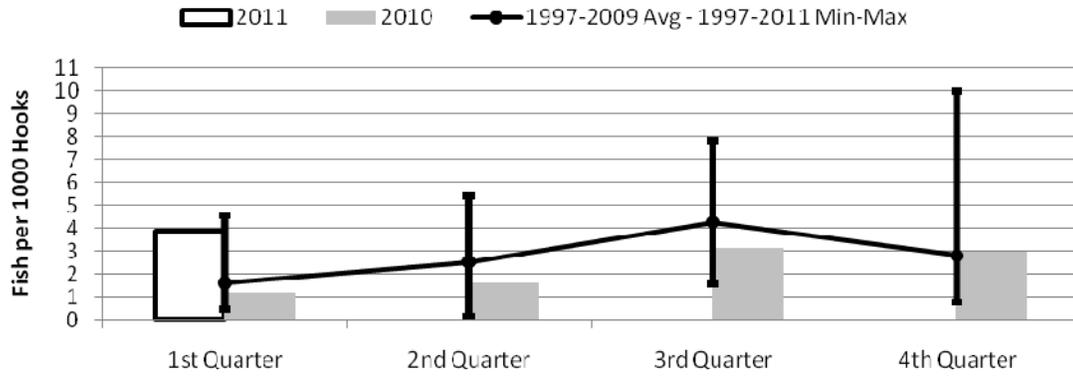
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	7.21	0.00	0.00	0.00
2010	8.61	21.85	20.60	15.32
1997-2011 Max	27.01	36.18	39.13	35.75
1997-2009 Avg	14.62	21.41	22.82	20.72
1997-2011 Min	6.58	14.09	12.96	10.54

**Figure 14. American Samoa Longline Bigeye Tuna Catch per 1000 Hooks by Quarter for**



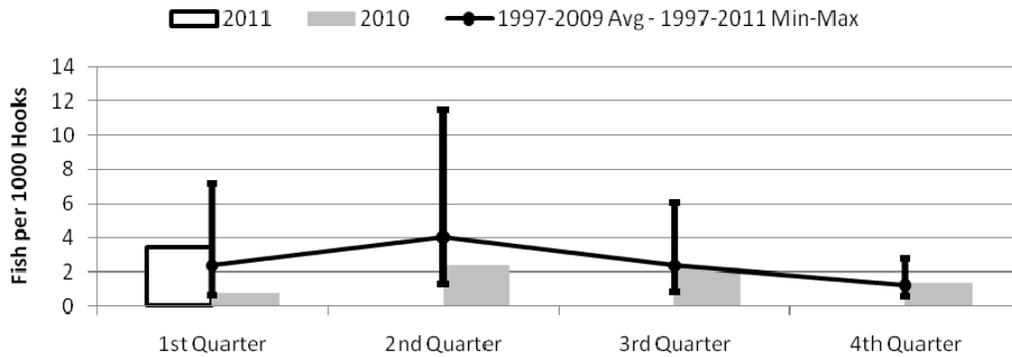
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.61	0.00	0.00	0.00
2010	0.29	1.24	1.10	0.37
1997-2011 Max	1.27	2.15	1.68	1.05
1997-2009 Avg	0.64	0.87	0.88	0.66
1997-2011 Min	0.15	0.41	0.48	0.29

Figure 15. American Samoa Longline Skipjack Tuna Catch per 1000 Hooks by Quarter for



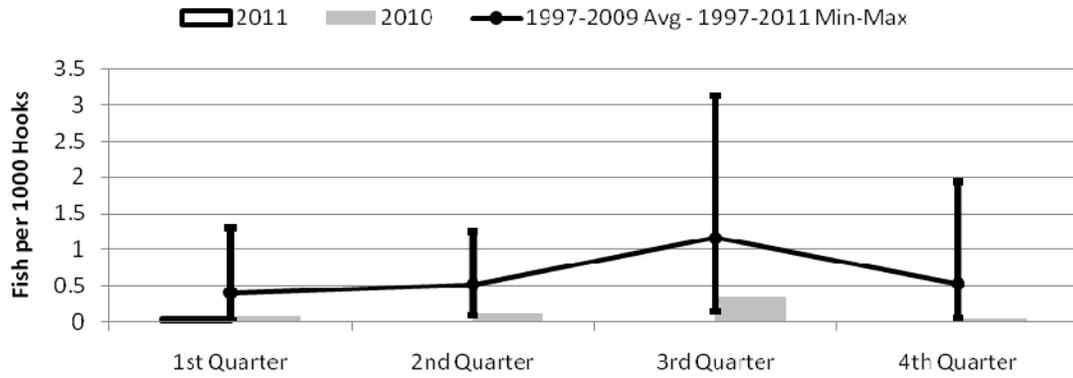
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	3.85	0.00	0.00	0.00
2010	1.15	1.59	3.11	2.94
1997-2011 Max	4.56	5.39	7.84	9.98
1997-2009 Avg	1.60	2.53	4.27	2.80
1997-2011 Min	0.44	0.12	1.56	0.79

Figure 16. American Samoa Yellowfin Tuna Catch per 1000 Hooks by Quarter for



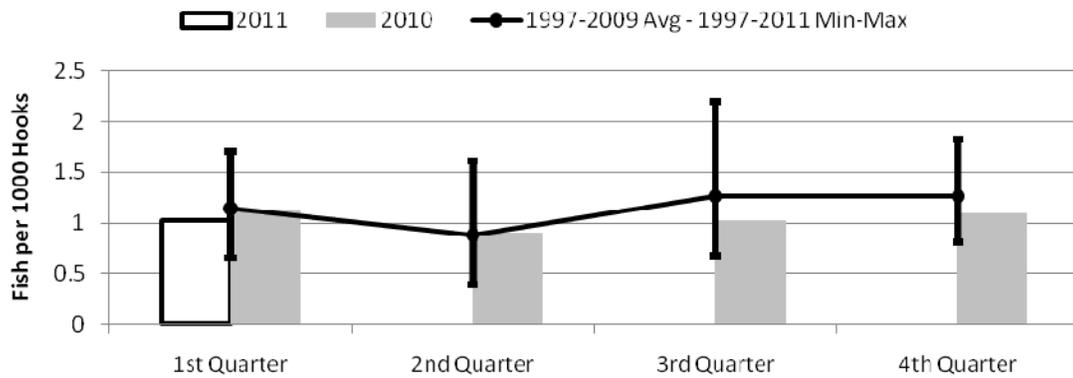
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	3.45	0.00	0.00	0.00
2010	0.71	2.37	2.24	1.31
1997-2011 Max	7.12	11.51	6.04	2.76
1997-2009 Avg	2.36	4.07	2.36	1.25
1997-2011 Min	0.66	1.34	0.83	0.55

**Figure 17. American Samoa Longline Mahimahi Catch per 1000 Hooks by Quarter for**



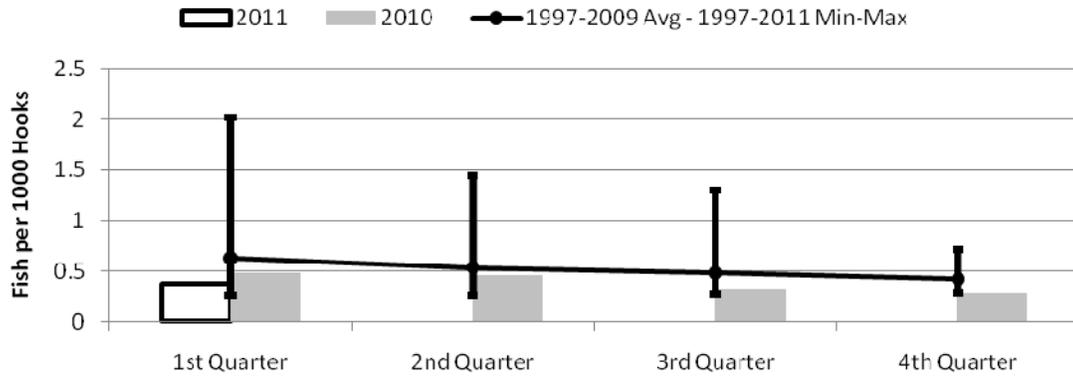
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.04	0.00	0.00	0.00
2010	0.06	0.10	0.33	0.04
1997-2011 Max	1.30	1.25	3.13	1.93
1997-2009 Avg	0.40	0.52	1.16	0.53
1997-2011 Min	0.02	0.10	0.14	0.04

**Figure 18. American Samoa Wahoo Catch per 1000 Hooks by Quarter for**



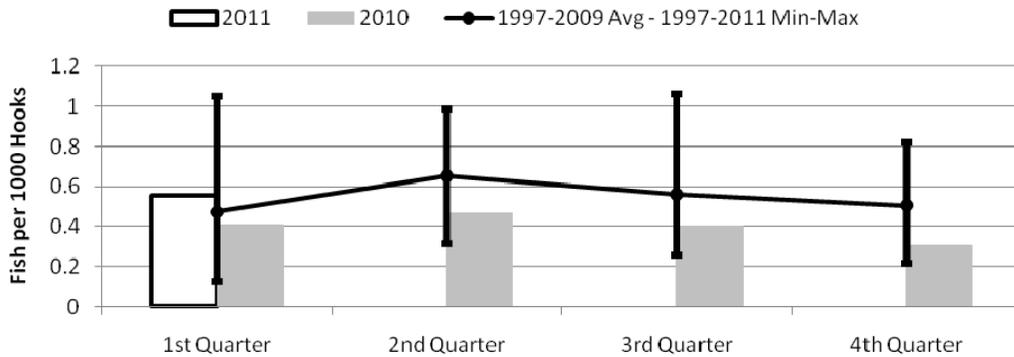
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1.03	0.00	0.00	0.00
2010	1.12	0.90	1.02	1.09
1997-2011 Max	1.71	1.62	2.20	1.83
1997-2009 Avg	1.14	0.88	1.26	1.26
1997-2011 Min	0.66	0.39	0.67	0.80

**Figure 19. American Samoa Billfish Catch per 1000 Hooks by Quarter for**



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.38	0.00	0.00	0.00
2010	0.48	0.45	0.31	0.28
1997-2011 Max	2.02	1.44	1.31	0.71
1997-2009 Avg	0.63	0.54	0.49	0.42
1997-2011 Min	0.25	0.26	0.27	0.28

**Figure 20. American Samoa Shark Catch per 1000 Hooks by Quarter for**



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.55	0.00	0.00	0.00
2010	0.41	0.47	0.40	0.31
1997-2011 Max	1.05	0.99	1.06	0.82
1997-2009 Avg	0.47	0.65	0.56	0.51
1997-2011 Min	0.12	0.31	0.26	0.22