

PIFSC Report on the Logbook Program for the American Samoa Longline Fishery April-June 2010¹

Fisheries Monitoring Branch
Pacific Islands Fisheries Science Center

Summary statistics of American Samoa longline catch and effort for the second quarter of 2010, based on date of haul, are shown in Table 1. The table is derived from all federal logbook data submitted by American Samoa-based longline vessels as of August 3, 2010. The table entries reflect 100% of the monitored trip effort for both large and small longline vessels. Compared to the second quarter of 2009, the number of active vessels in the second quarter of 2010 decreased by 4%, from 25 vessels to 24 (Fig. 1).

The 24 vessels active during the second quarter of 2010 made 1082 sets and deployed 3,069,690 hooks. Compared with results for second quarter 2009, the number of sets during the second quarter of 2010 decreased by 14% (Fig. 2) and the number of hooks used decreased by 19% (Fig. 3). The average number of hooks used per set decreased by 6%, from 3030 to 2837; this statistic also decreased in the first quarter of 2010.

The total catch for all species combined was 91,171 fish, an increase of 3% compared to the second quarter of 2009 (Fig. 4). The catches of albacore, bigeye tuna, and yellowfin tuna increased, but those of skipjack and non-tuna species decreased. Albacore continued to dominate the catch with 67,139 fish caught in the second quarter of 2010, an 8% increase over the 62,186 albacore caught in the second quarter of 2009 (Fig. 5). The catch of bigeye tuna increased by 147% (Fig. 6), the catch of yellowfin tuna increased by 10% (Fig. 8), and the catch of skipjack declined by 37% (Fig. 7). The catches of non-tuna species decreased, with mahimahi down by 64% (Fig. 9), billfish down by 28% (Fig. 11) and shark catch down by 19% (Fig. 12).

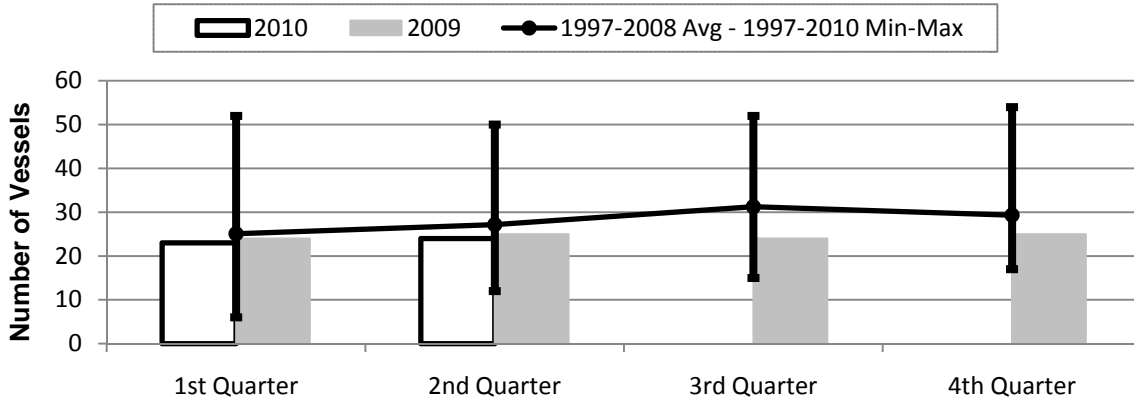
Since the number of hooks used decreased by 19% while the total fish catch increased by 3%, the overall catch per unit of effort (CPUE), measured in catch per 1000 hooks, increased slightly. Compared to the second quarter of 2009, the CPUE for albacore, bigeye tuna, yellowfin tuna and wahoo all increased, while CPUE for other species declined. Albacore CPUE increased by 33% (Fig. 13), bigeye tuna CPUE increased by 207% (Fig. 14), yellowfin tuna CPUE increased by 36% (Fig. 16), and skipjack CPUE decreased by 23% (Fig. 15). Wahoo CPUE increased by 10% (Fig. 18), billfish CPUE decreased by 10% (Fig. 19), mahimahi CPUE decreased by 57% (Fig. 17) and shark CPUE showed no change (Fig. 20).

¹ PIFSC Data Report DR-10-010
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Table 1. Summary of fish catch and nominal fishing effort by American Samoa Longline vessels during the second quarter of 2010 based on longline logbooks submitted as of August 3, 2010.

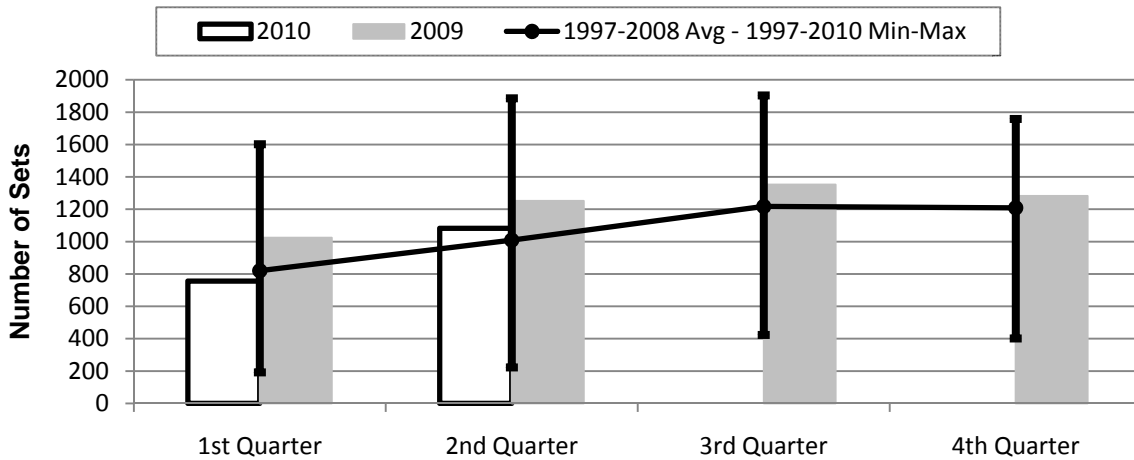
TRIP INFORMATION				
Number of Vessels:	24			
Number of Trips:	71			
Number of Sets:	1,082			
1000's of Hooks Set:	3,070			
Number of Light Sticks Used:	68			
CATCH INFORMATION				
Species	Number Caught	Number Kept	Number Released	Number Caught per 1000 Hooks
BILLFISH				
Black marlin	2	1	1	0.00
Blue marlin	947	193	754	0.31
Striped marlin	53	4	49	0.02
Sailfish	86	10	76	0.03
Spearfish	260	21	239	0.08
Swordfish	53	34	19	0.02
TOTAL BILLFISH	1,401	263	1,138	0.46
SHARKS				
Blue shark	974	3	971	0.32
Shortfin mako shark	53	0	53	0.02
Thresher shark	49	0	49	0.02
White tip oceanic shark	186	0	186	0.06
Sharks (unknown)	174	0	174	0.06
TOTAL SHARKS	1,436	3	1,433	0.47
TUNA				
Albacore tuna	67,139	67,078	61	21.87
Bigeye tuna	3,864	3,264	600	1.26
Skipjack tuna	4,932	3,251	1,681	1.61
Yellowfin tuna	7,332	6,383	949	2.39
TOTAL TUNA	83,267	79,976	3,291	27.13
OTHER PELAGICS				
Mahimahi	308	152	156	0.10
Moonfish	84	16	68	0.03
Oilfish	1,695	0	1,695	0.55
Pomfret	186	39	147	0.06
Wahoo	2,775	1,598	1,177	0.90
TOTAL OTHER PELAGICS	5,048	1,805	3,243	1.64
NON-PMUS				
Pelagic fishes (unknown)	19	0	19	0.01
TOTAL NON-PMUS	19	0	19	0.01
TOTAL ALL SPECIES	91,171	82,047	9,124	29.70

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



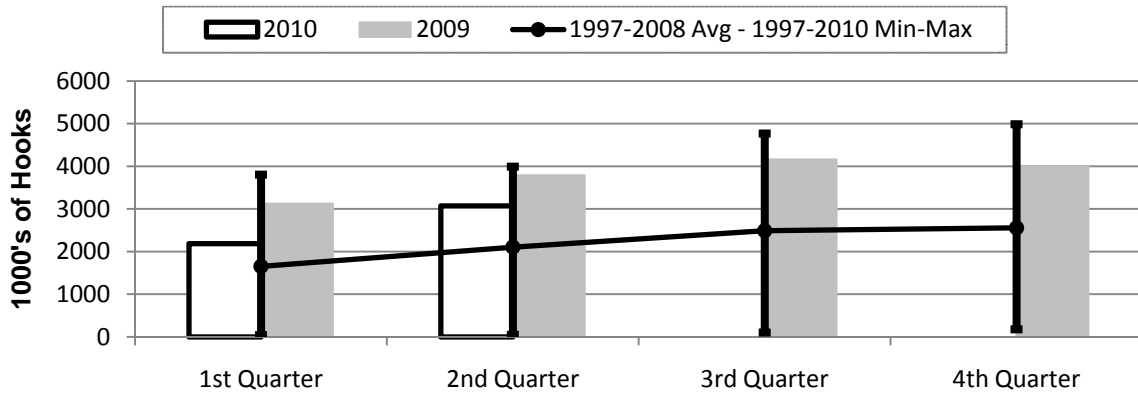
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	23	24	0	0
2009	24	25	24	25
1997-2010 Max	52	50	52	54
1997-2008 Avg	25	27	31	29
1997-2010 Min	6	12	15	17

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



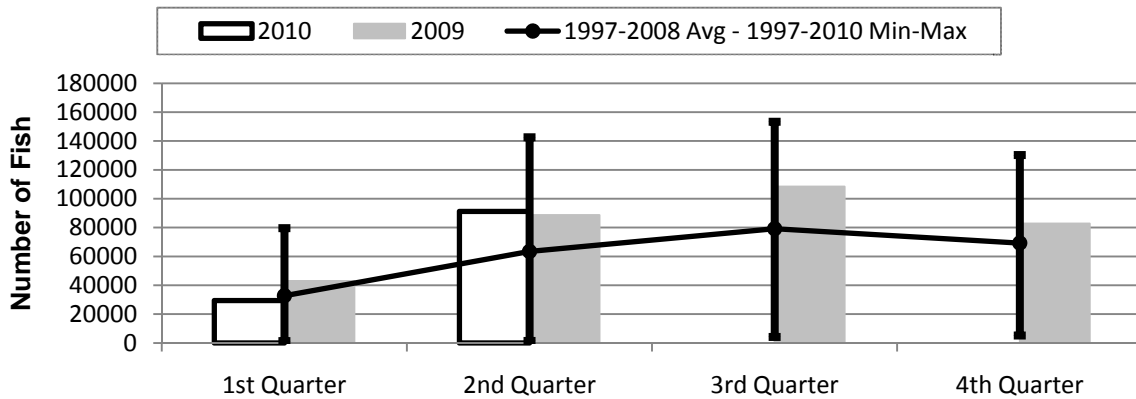
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	756	1,082	0	0
2009	1,024	1,252	1,353	1,282
1997-2010 Max	1,602	1,886	1,904	1,758
1997-2008 Avg	820	1,009	1,217	1,209
1997-2010 Min	192	223	424	402

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



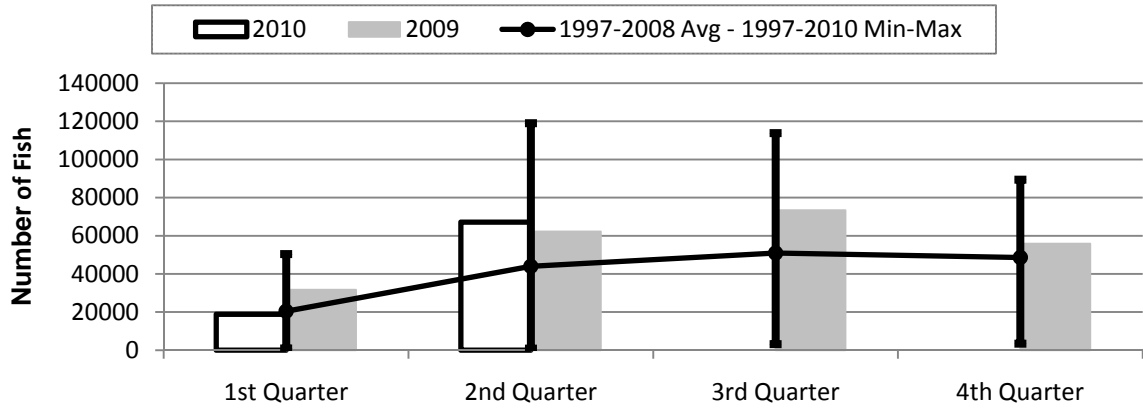
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	2,187	3,070	0	0
2009	3,125	3,788	4,162	4,001
1997-2010 Max	3,805	3,993	4,769	4,985
1997-2008 Avg	1,653	2,104	2,488	2,558
1997-2010 Min	41	51	101	175

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



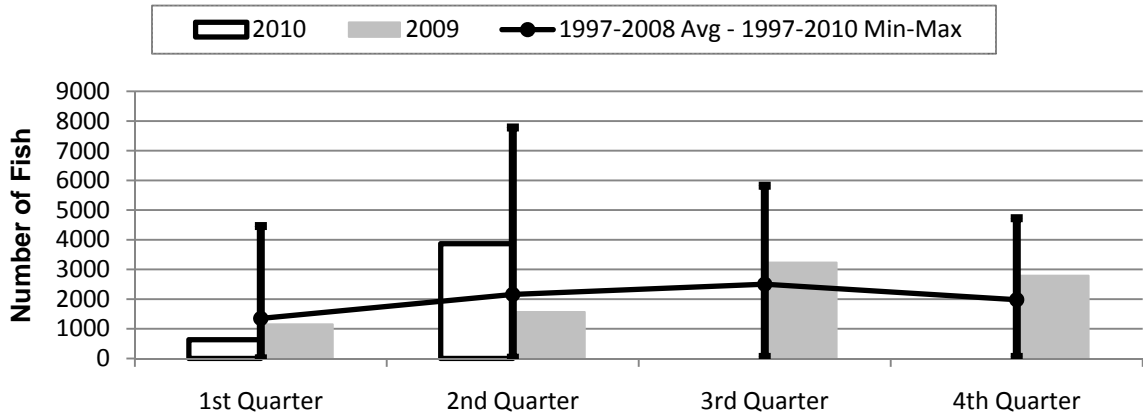
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	29,416	91,171	0	0
2009	43,026	88,705	108,384	82,846
1997-2010 Max	79,567	142,603	153,301	130,238
1997-2008 Avg	32,782	63,485	79,235	69,270
1997-2010 Min	1,315	1,416	4,127	5,204

Figure 5. American Samoa Longline Albacore Catch by Quarter for



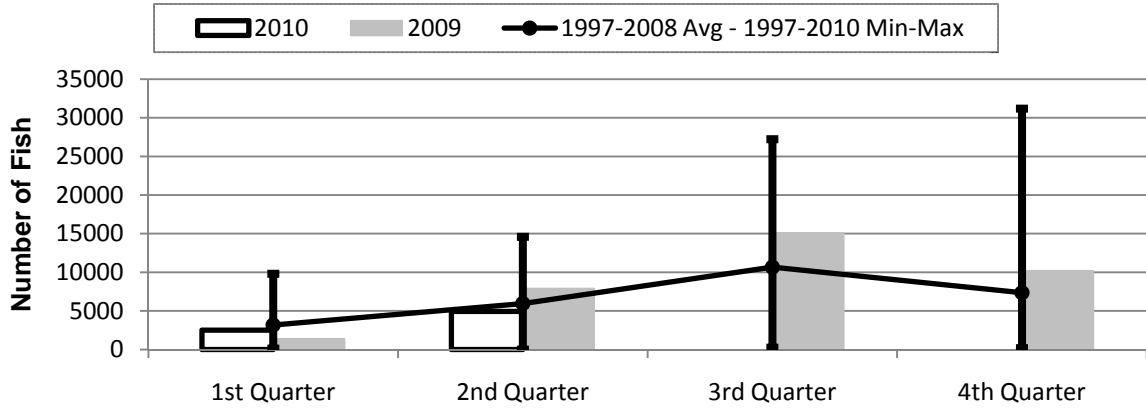
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	18,828	67,139	0	0
2009	31,680	62,186	73,400	55,833
1997-2010 Max	50,382	118,994	113,831	89,389
1997-2008 Avg	20,450	44,004	50,935	48,635
1997-2010 Min	940	851	3,182	3,466

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



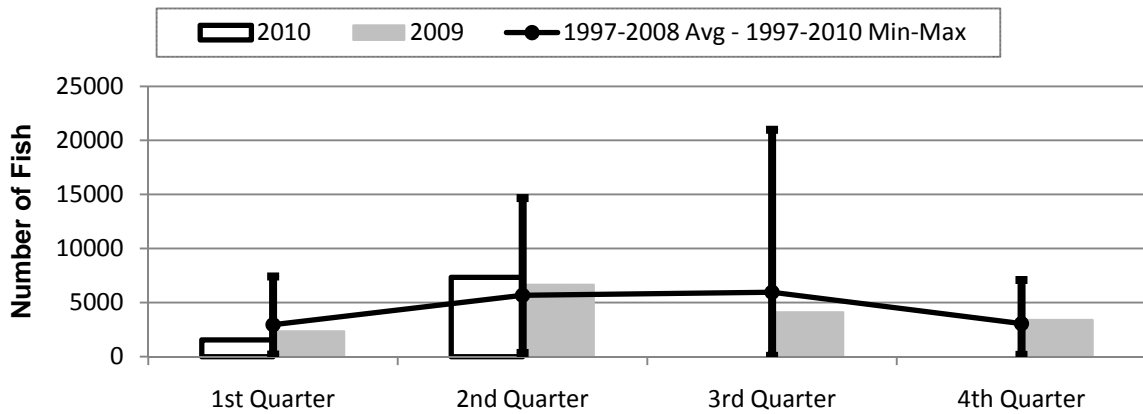
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	633	3,864	0	0
2009	1,154	1,565	3,233	2,791
1997-2010 Max	4,466	7,785	5,824	4,728
1997-2008 Avg	1,348	2,155	2,503	1,979
1997-2010 Min	6	26	55	55

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



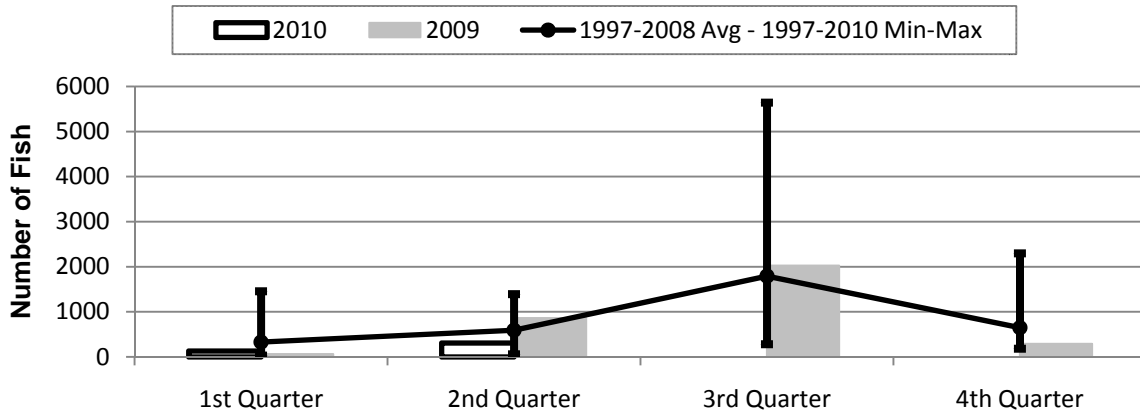
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	2,506	4,932	0	0
2009	1,383	7,882	15,081	10,188
1997-2010 Max	9,809	14,606	27,234	31,191
1997-2008 Avg	3,170	5,957	10,663	7,357
1997-2010 Min	115	6	244	178

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



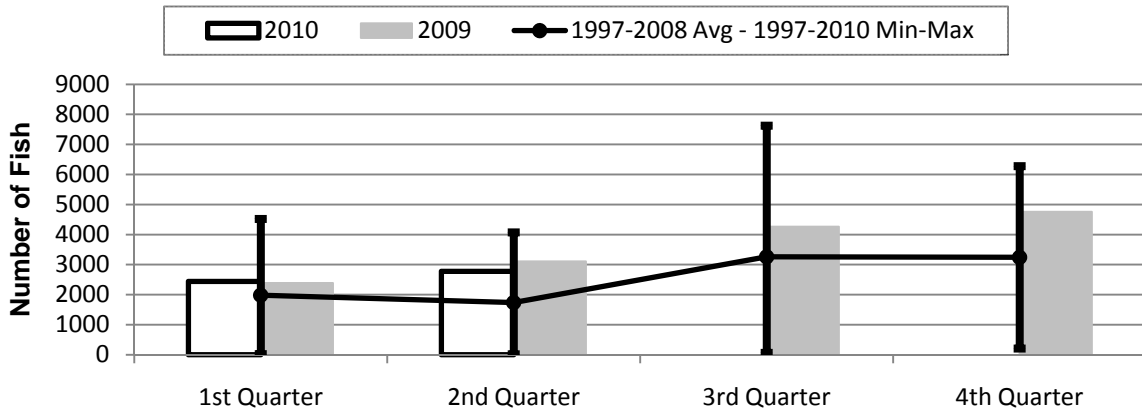
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	1,547	7,332	0	0
2009	2,357	6,666	4,111	3,407
1997-2010 Max	7,428	14,681	20,993	7,104
1997-2008 Avg	2,955	5,680	5,962	3,052
1997-2010 Min	213	356	84	177

Figure 9. American Samoa Mahimahi Catch by Quarter for



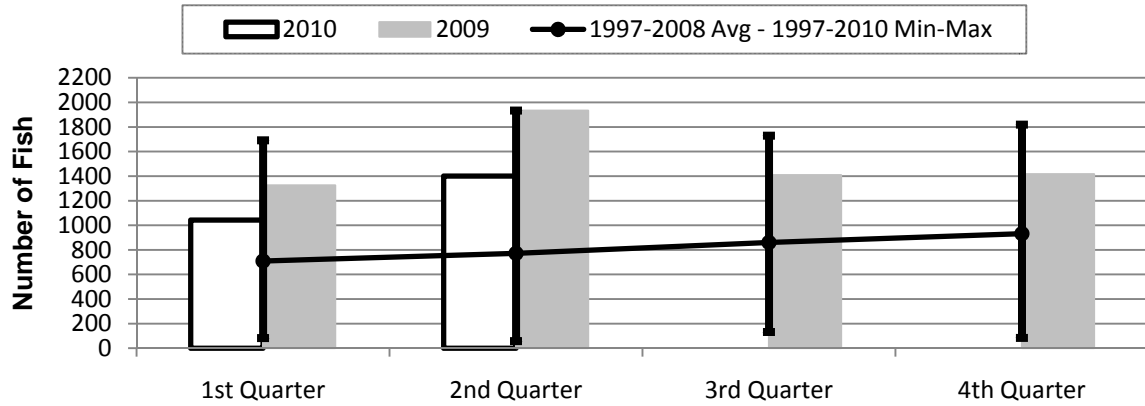
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	131	308	0	0
2009	65	862	2,027	291
1997-2010 Max	1,455	1,391	5,642	2,297
1997-2008 Avg	328	591	1,793	647
1997-2010 Min	30	59	280	181

Figure 10. American Samoa Wahoo Catch by Quarter for



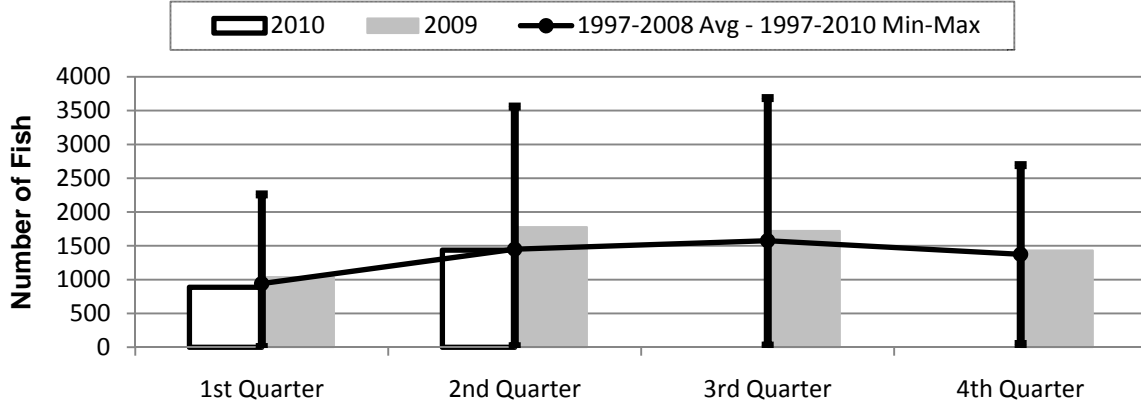
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	2,441	2,775	0	0
2009	2,388	3,106	4,265	4,760
1997-2010 Max	4,524	4,076	7,629	6,281
1997-2008 Avg	1,981	1,739	3,259	3,242
1997-2010 Min	27	20	68	210

Figure 11. American Samoa Billfish Catch by Quarter for



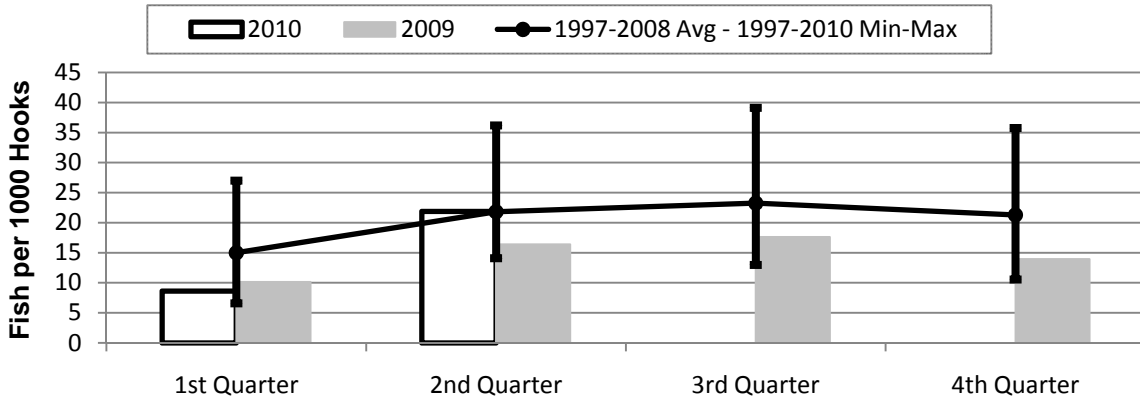
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	1,043	1,401	0	0
2009	1,326	1,934	1,409	1,417
1997-2010 Max	1,692	1,934	1,729	1,819
1997-2008 Avg	710	772	861	932
1997-2010 Min	83	58	132	84

Figure 12. American Samoa Shark Catch by Quarter for



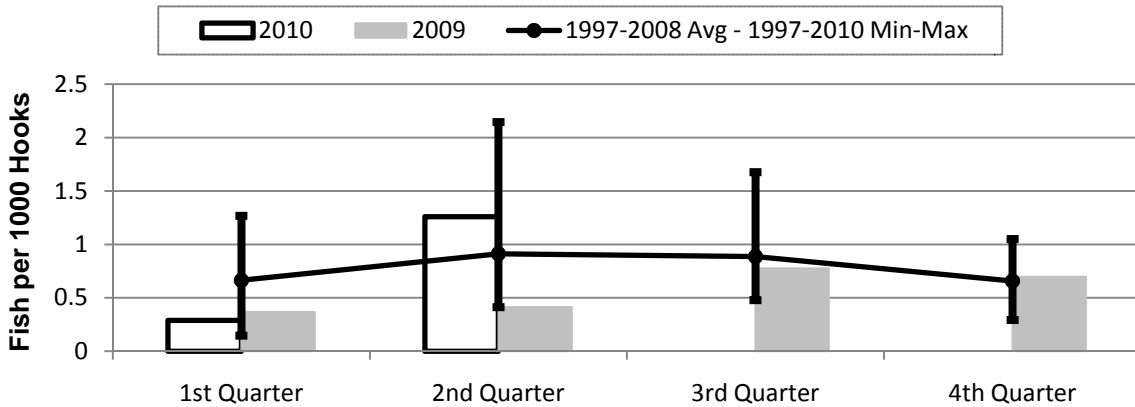
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	887	1,436	0	0
2009	1,039	1,777	1,721	1,431
1997-2010 Max	2,262	3,562	3,686	2,695
1997-2008 Avg	941	1,449	1,576	1,375
1997-2010 Min	5	16	26	49

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



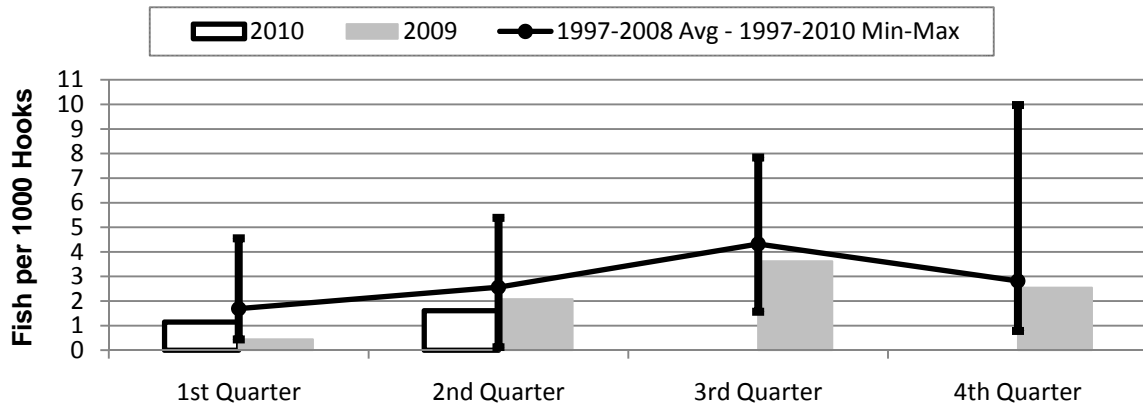
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	8.61	21.87	0.00	0.00
2009	10.14	16.41	17.63	13.95
1997-2010 Max	27.01	36.18	39.13	35.75
1997-2008 Avg	15.00	21.83	23.25	21.29
1997-2010 Min	6.58	14.09	12.96	10.54

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



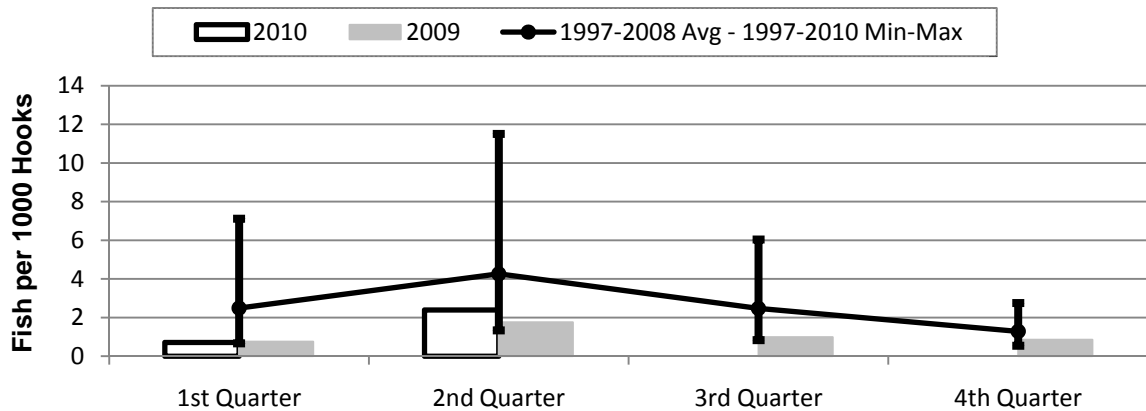
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.29	1.26	0.00	0.00
2009	0.37	0.41	0.78	0.70
1997-2010 Max	1.27	2.15	1.68	1.05
1997-2008 Avg	0.66	0.91	0.89	0.66
1997-2010 Min	0.15	0.41	0.48	0.29

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



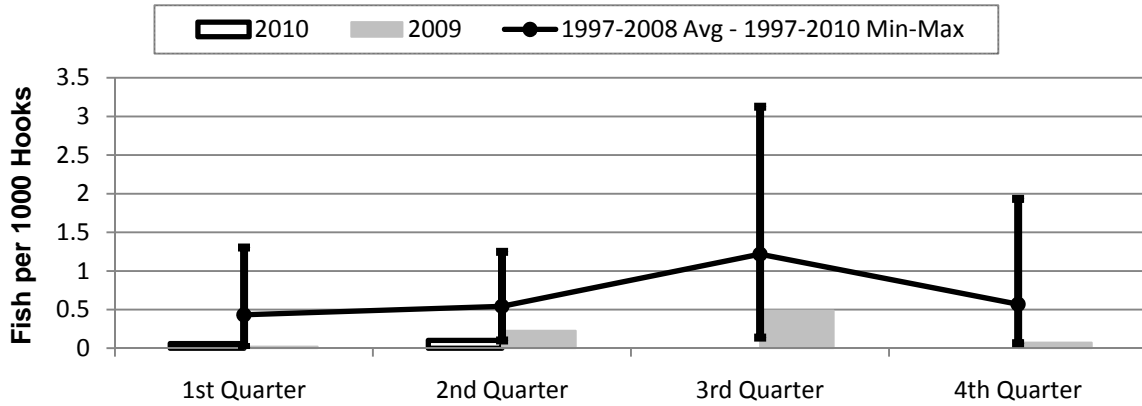
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	1.15	1.61	0.00	0.00
2009	0.44	2.08	3.62	2.55
1997-2010 Max	4.56	5.39	7.84	9.98
1997-2008 Avg	1.69	2.56	4.32	2.82
1997-2010 Min	0.44	0.12	1.56	0.79

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



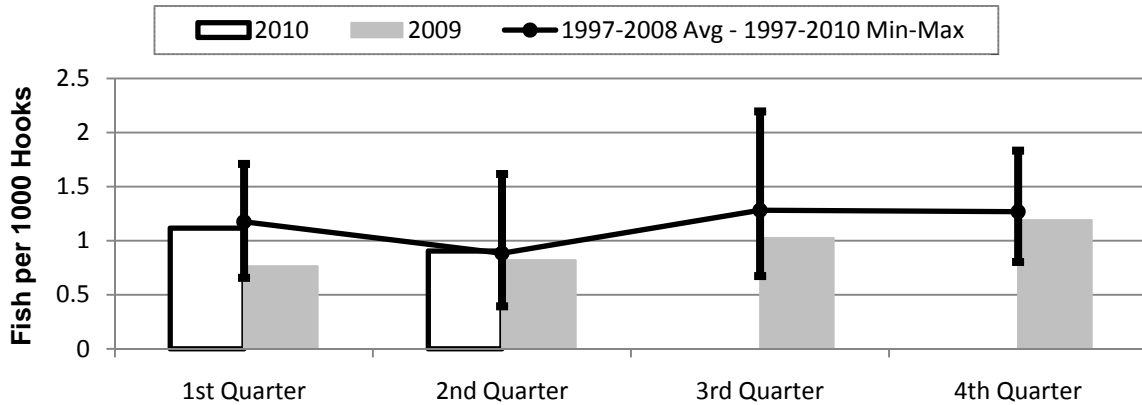
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.71	2.39	0.00	0.00
2009	0.75	1.76	0.99	0.85
1997-2010 Max	7.12	11.51	6.04	2.76
1997-2008 Avg	2.49	4.26	2.47	1.28
1997-2010 Min	0.66	1.34	0.83	0.55

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



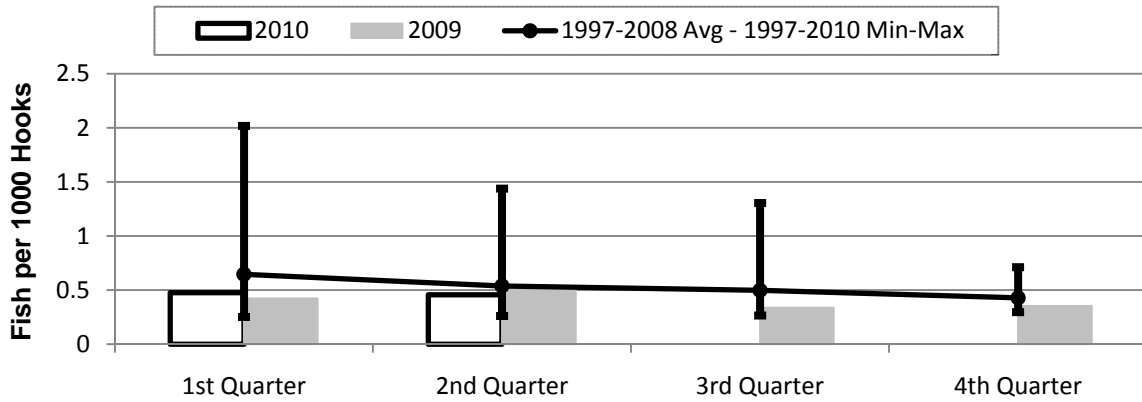
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.06	0.10	0.00	0.00
2009	0.02	0.23	0.49	0.07
1997-2010 Max	1.30	1.25	3.13	1.93
1997-2008 Avg	0.43	0.54	1.22	0.57
1997-2010 Min	0.02	0.10	0.14	0.07

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



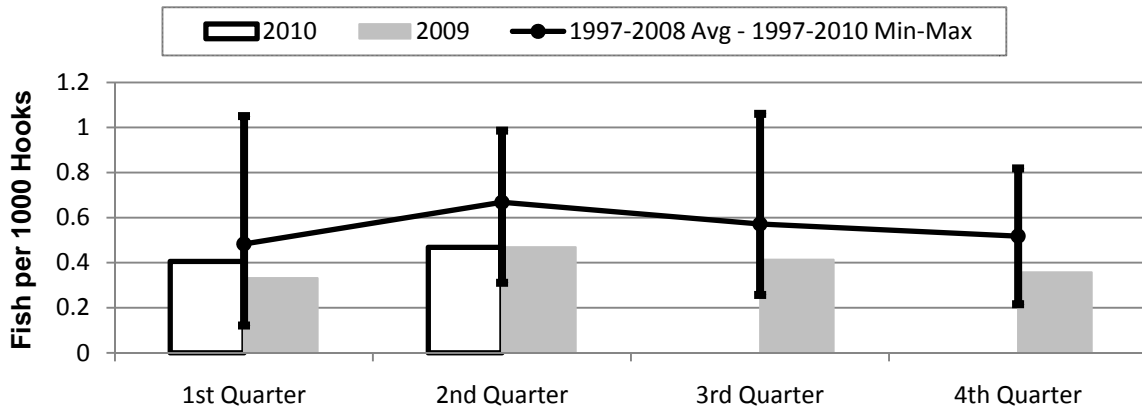
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	1.12	0.90	0.00	0.00
2009	0.76	0.82	1.02	1.19
1997-2010 Max	1.71	1.62	2.20	1.83
1997-2008 Avg	1.17	0.88	1.28	1.27
1997-2010 Min	0.66	0.39	0.67	0.80

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.48	0.46	0.00	0.00
2009	0.42	0.51	0.34	0.35
1997-2010 Max	2.02	1.44	1.31	0.71
1997-2008 Avg	0.65	0.54	0.50	0.43
1997-2010 Min	0.25	0.26	0.27	0.30

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.41	0.47	0.00	0.00
2009	0.33	0.47	0.41	0.36
1997-2010 Max	1.05	0.99	1.06	0.82
1997-2008 Avg	0.48	0.67	0.57	0.52
1997-2010 Min	0.12	0.31	0.26	0.22