

PIFSC Report on the Logbook Program for the American Samoa Longline Fishery July-September 2010¹

Fisheries Monitoring Branch
Pacific Islands Fisheries Science Center

Summary statistics of American Samoa longline catch and effort for the third 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 November 8, 2010. The table entries reflect 95% of the monitored trip effort for both large and small longline vessels. Compared to the third quarter of 2009, the number of active vessels in the third quarter of 2010 increased 4%, from 24 vessels to 25 (Fig. 1).

The 25 vessels active during the third quarter of 2010 made 1,430 sets and deployed 4,155,555 hooks. Compared with results for the third quarter of 2009, the number of sets increased by 6% (Fig. 2) and the number of hooks used decreased by less than 1% (Fig. 3). The average number of hooks used per set decreased by 6%, from 3,079 to 2,906.

The total catch for all species combined was 124,136 fish, an increase of 15% compared to the third quarter of 2009 (Fig. 4). The catches of albacore, bigeye tuna, and yellowfin tuna increased, while those of skipjack and non-tuna species decreased. Albacore continued to dominate the catch with 85,579 fish caught in the third quarter of 2010, a 17% increase over albacore caught in the third quarter of 2009 (Fig. 5). Bigeye tuna catch increased by 41% (Fig. 6), yellowfin tuna catch increased by 125% (Fig. 8), and skipjack catch declined by 14% (Fig. 7). Catches of non-tuna species all decreased, with mahimahi down by 33% (Fig. 9), wahoo down 1% (Fig.10), billfish down by 8% (Fig. 11) and shark catch down by 2% (Fig. 12).

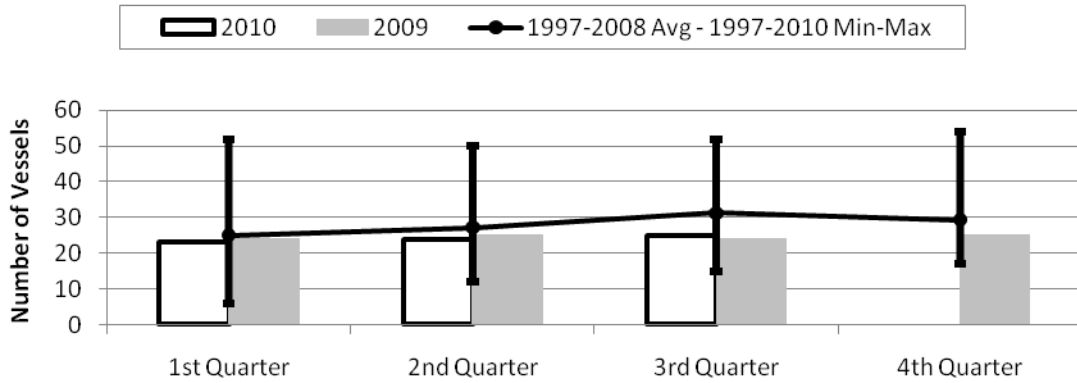
Since the number of hooks used stayed about the same while the total fish catch increased by 15%, the overall catch per unit of effort (CPUE), measured in catch per 1000 hooks, increased. Compared to the third quarter of 2009, the CPUE for albacore, bigeye tuna, and yellowfin tuna increased, while CPUE for other tuna species declined. Albacore CPUE increased by 17% (Fig. 13), bigeye tuna CPUE increased by 41% (Fig. 14), and yellowfin tuna CPUE increased by 125% (Fig. 16). Wahoo CPUE showed no change (Fig. 18). Skipjack CPUE decreased by 14% (Fig. 15), billfish CPUE decreased by 9% (Fig. 19), mahimahi CPUE decreased by 33% (Fig. 17), and shark CPUE decreased by 2% (Fig. 20).

¹ PIFSC Data Report DR-11-001
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Table 1. Summary of fish catch and nominal fishing effort by American Samoa longline vessels during the third quarter of 2010 based on longline logbooks submitted by November 8, 2010.

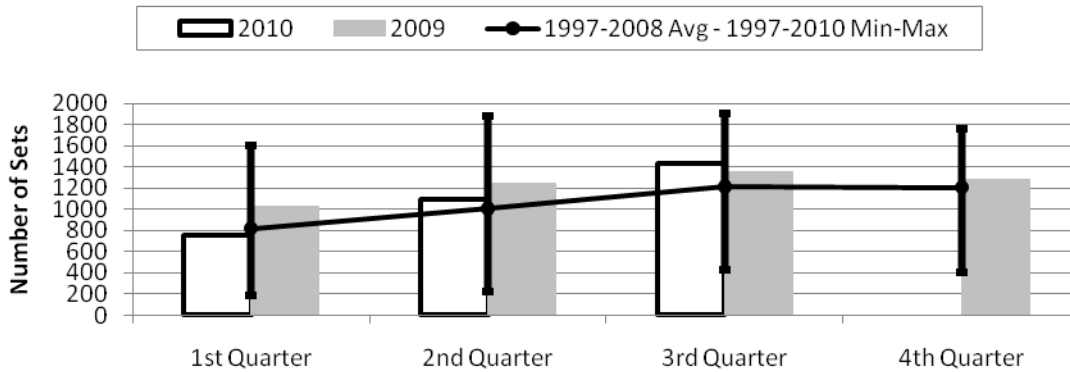
TRIP INFORMATION				
	Number of Vessels:		25	
	Number of Trips:		83	
	Number of Sets:		1,430	
	1000's of Hooks Set:		4,156	
	Number of Light Sticks Used:		263	
CATCH INFORMATION				
Species	Number Caught	Number Kept	Number Released	Number Caught per 1000 Hooks
BILLFISH				
Blue marlin	693	133	560	0.17
Striped marlin	85	8	77	0.02
Sailfish	105	9	96	0.03
Spearfish	308	21	287	0.07
Swordfish	106	64	42	0.03
TOTAL BILLFISH	1,297	235	1,062	0.31
SHARKS				
Blue shark	1,007	18	989	0.24
Shortfin mako shark	109	1	108	0.03
Thresher shark	69	0	69	0.02
White tip oceanic shark	364	12	352	0.09
Sharks (unknown)	133	0	133	0.03
TOTAL SHARKS	1,682	31	1,651	0.40
TUNA				
Albacore tuna	85,579	85,360	219	20.59
Bigeye tuna	4,563	3,738	825	1.10
Bluefin tuna	5	5	0	0.00
Skipjack tuna	12,919	7,050	5,869	3.11
Yellowfin tuna	9,265	7,679	1,586	2.23
TOTAL TUNA	112,331	103,832	8,499	27.03
OTHER PELAGICS				
Mahimahi	1,365	495	870	0.33
Moonfish	204	44	160	0.05
Oilfish	2,390	6	2,384	0.58
Pomfret	278	38	240	0.07
Wahoo	4,219	2,556	1,663	1.02
TOTAL OTHER PELAGICS	8,456	3,139	5,317	2.03
NON-PMUS				
Pelagic fishes (unknown)	370	11	359	0.09
TOTAL NON-PMUS	370	11	359	0.09
TOTAL ALL SPECIES	124,136	107,248	16,888	29.87

Figure 1. American Samoa Longline Vessels Submitting Logs by Quarter for 2009 and 2010.



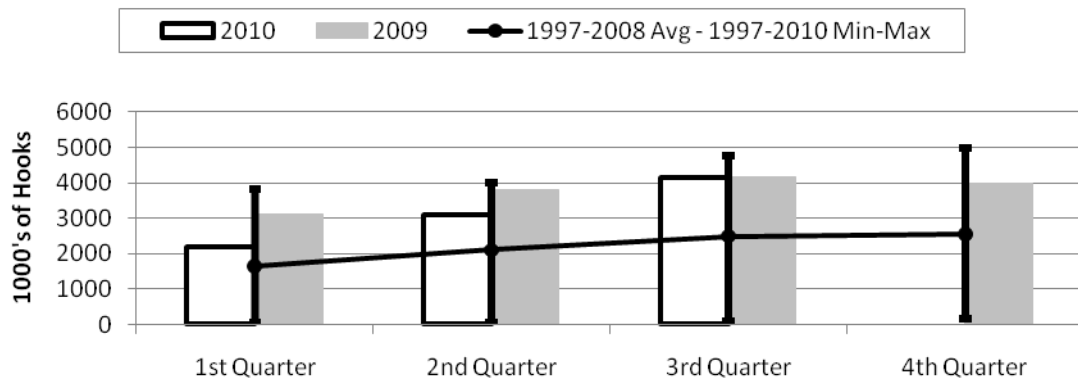
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	23	24	25	0
2009	24	25	24	25
1997-2010 Max	52	50	52	54
1997-2008 Avg	25	27	31	29
1997-2010 Min	6	12	15	17

Figure 2. Number of Sets by American Samoa Longline Vessels by Quarter for 2009 and 2010.



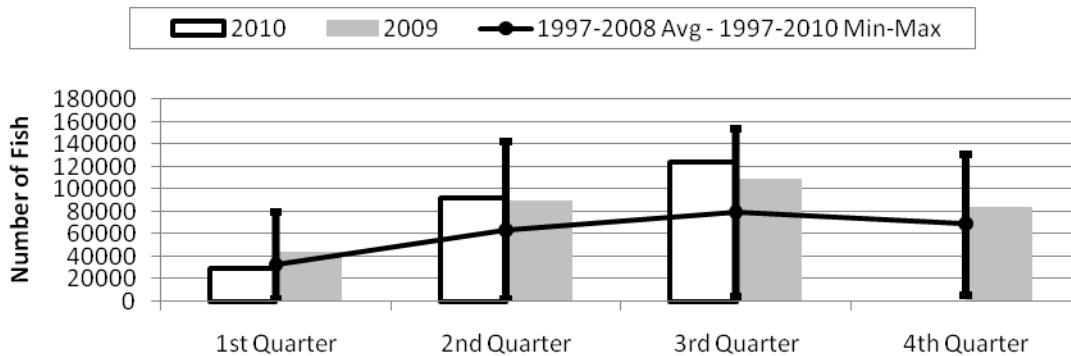
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	756	1,094	1,430	0
2009	1,024	1,252	1,353	1,282
1997-2010 Max	1,602	1,886	1,904	1,758
1997-2008 Avg	820	1,009	1,217	1,209
1997-2010 Min	192	223	424	402

Figure 3. Number of Hooks Set by the American Samoa Longline Fleet by Quarter for 2009 and 2010.



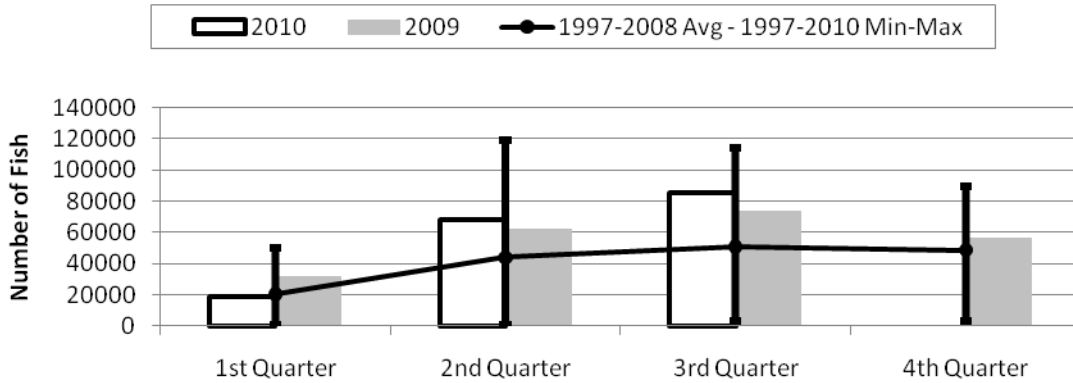
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	2,187	3,112	4,156	0
2009	3,125	3,788	4,162	4,001
1997-2010 Max	3,805	3,993	4,769	4,985
1997-2008 Avg	1,653	2,104	2,488	2,558
1997-2010 Min	41	51	101	175

Figure 4. American Samoa Longline Total Catch (All Species) by Quarter for 2009 and 2010.



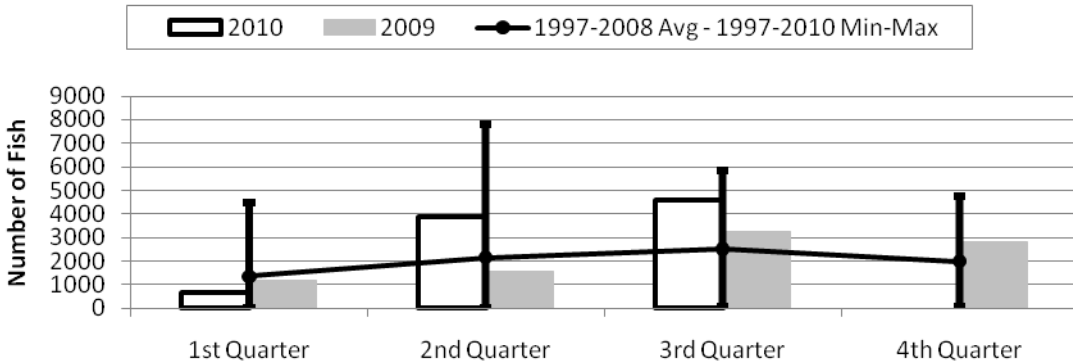
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	29,416	92,179	124,136	0
2009	43,026	88,705	108,384	82,846
1997-2010 Max	79,567	142,603	153,301	130,238
1997-2008 Avg	32,782	63,485	79,235	69,270
1997-2010 Min	1,315	1,416	4,127	5,204

Figure 5. American Samoa Longline Albacore Catch by Quarter for 2009 and 2010.



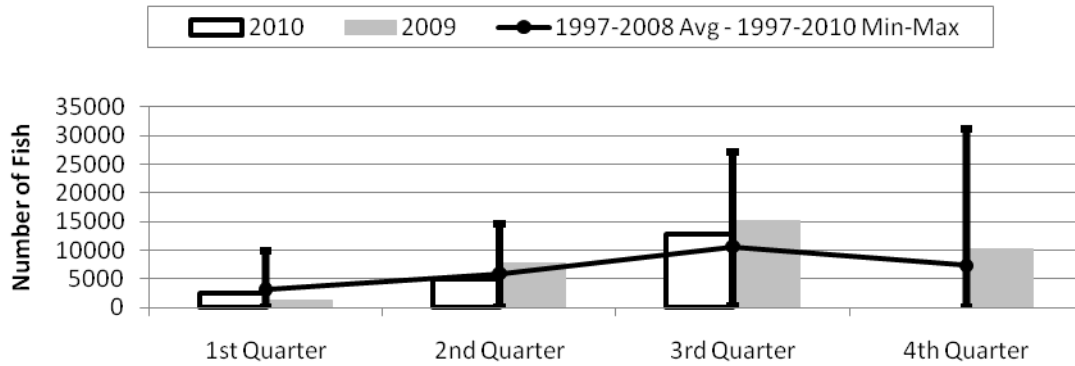
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	18,828	68,022	85,579	0
2009	31,680	62,186	73,400	55,833
1997-2010 Max	50,382	118,994	113,831	89,389
1997-2008 Avg	20,450	44,004	50,935	48,635
1997-2010 Min	940	851	3,182	3,466

Figure 6. American Samoa Longline Bigeye Tuna Catch by Quarter for 2009 and 2010.



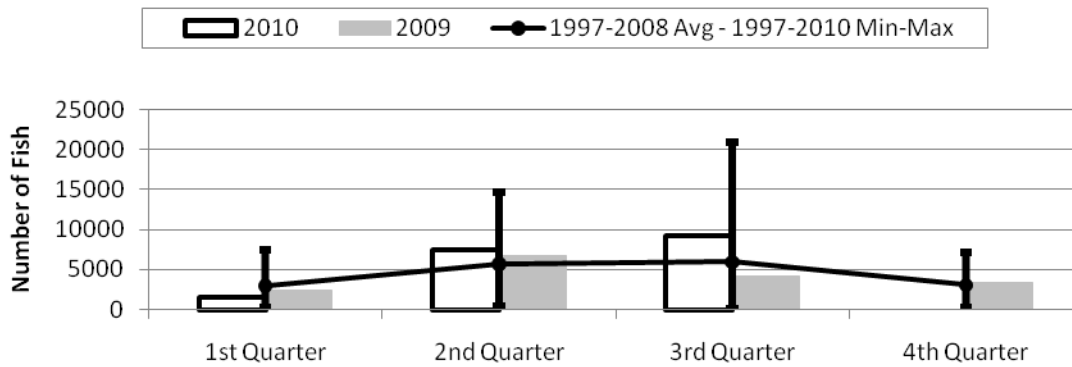
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	633	3,874	4,563	0
2009	1,154	1,565	3,233	2,791
1997-2010 Max	4,466	7,785	5,824	4,728
1997-2008 Avg	1,348	2,155	2,503	1,979
1997-2010 Min	6	26	55	55

Figure 7. American Samoa Longline Skipjack Tuna Catch by Quarter for 2009 and 2010.



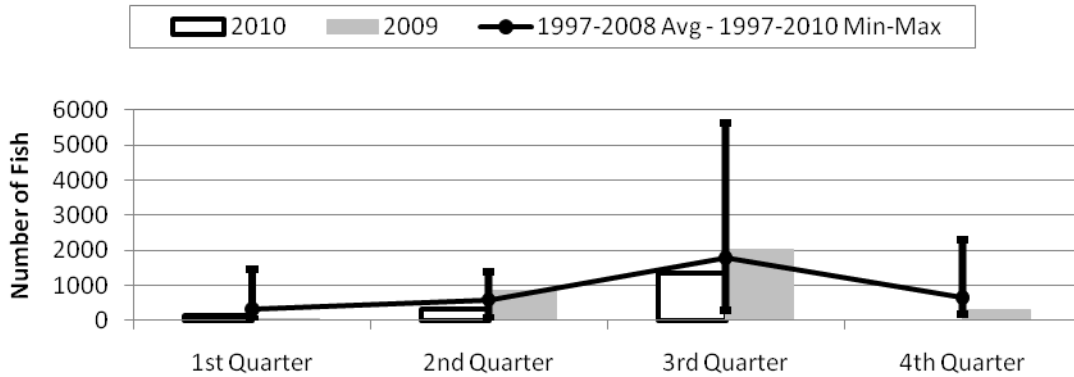
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	2,506	4,936	12,919	0
2009	1,383	7,882	15,081	10,188
1997-2010 Max	9,809	14,606	27,234	31,191
1997-2008 Avg	3,170	5,957	10,663	7,357
1997-2010 Min	115	6	244	178

Figure 8. American Samoa Longline Yellowfin Tuna Catch by Quarter for 2009 and 2010.



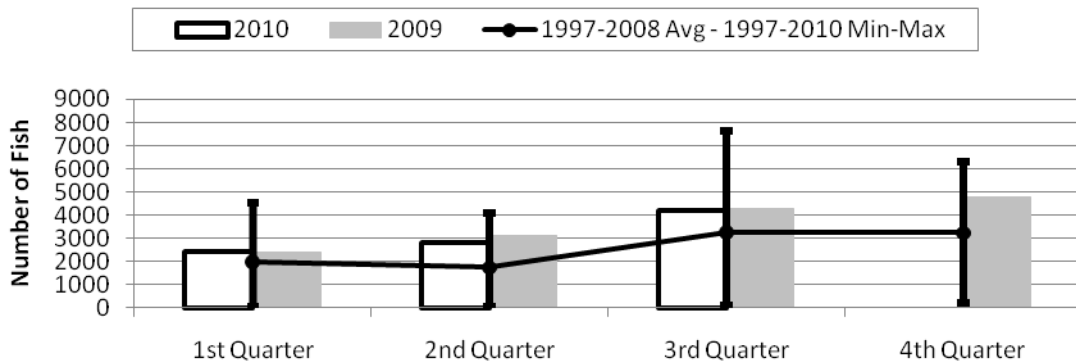
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	1,547	7,376	9,265	0
2009	2,357	6,666	4,111	3,407
1997-2010 Max	7,428	14,681	20,993	7,104
1997-2008 Avg	2,955	5,680	5,962	3,052
1997-2010 Min	213	356	84	177

Figure 9. American Samoa Mahimahi Catch by Quarter for 2009 and 2010.



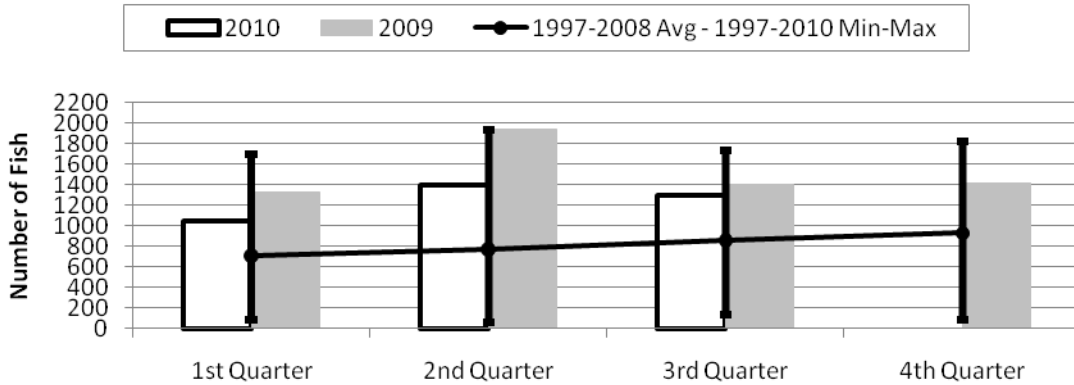
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	131	308	1,365	0
2009	65	862	2,027	291
1997-2010 Max	1,455	1,391	5,642	2,297
1997-2008 Avg	328	591	1,793	647
1997-2010 Min	30	59	280	181

Figure 10. American Samoa Wahoo Catch by Quarter for 2009 and 2010.



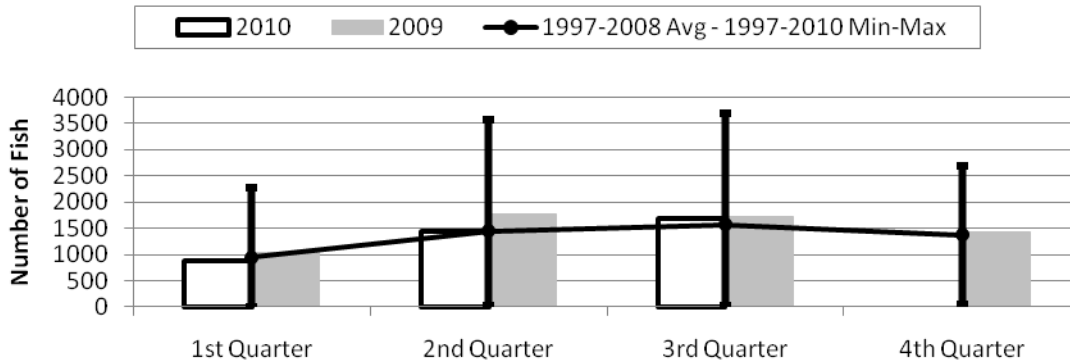
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	2,441	2,810	4,219	0
2009	2,388	3,106	4,265	4,760
1997-2010 Max	4,524	4,076	7,629	6,281
1997-2008 Avg	1,981	1,739	3,259	3,242
1997-2010 Min	27	20	68	210

Figure 11. American Samoa Billfish Catch by Quarter for 2009 and 2010.



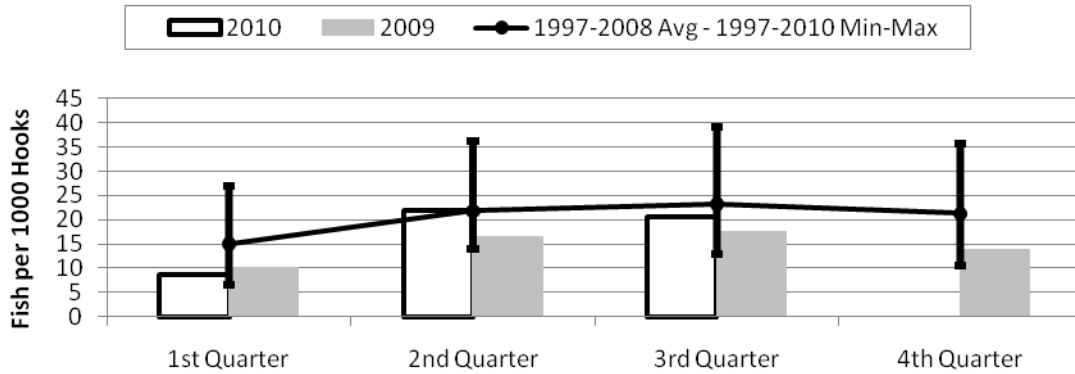
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	1,043	1,402	1,297	0
2009	1,326	1,934	1,409	1,417
1997-2010 Max	1,692	1,934	1,729	1,819
1997-2008 Avg	710	772	861	932
1997-2010 Min	83	58	132	84

Figure 12. American Samoa Shark Catch by Quarter for 2009 and 2010.



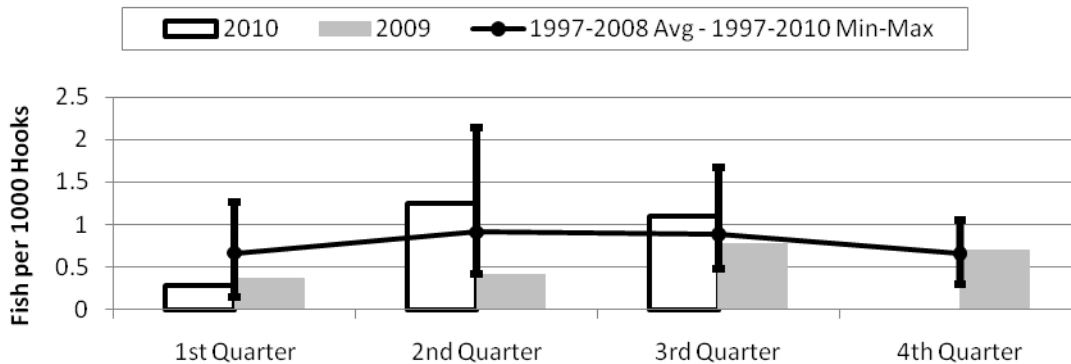
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	887	1,449	1,682	0
2009	1,039	1,777	1,721	1,431
1997-2010 Max	2,262	3,562	3,686	2,695
1997-2008 Avg	941	1,449	1,576	1,375
1997-2010 Min	5	16	26	49

Figure 13. American Samoa Longline Albacore Catch per 1000 Hooks by Quarter for 2009 and 2010.



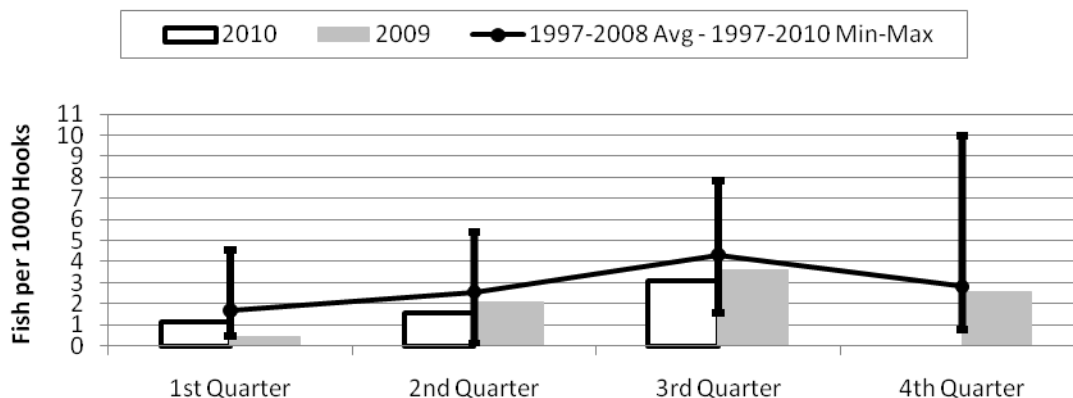
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	8.61	21.86	20.59	0.00
2009	10.14	16.41	17.63	13.95
1997-2010 Max	27.01	36.18	39.13	35.75
1997-2008 Avg	15.00	21.83	23.25	21.29
1997-2010 Min	6.58	14.09	12.96	10.54

Figure 14. American Samoa Longline Bigeye Tuna Catch per 1000 Hooks by Quarter for 2009 and 2010.



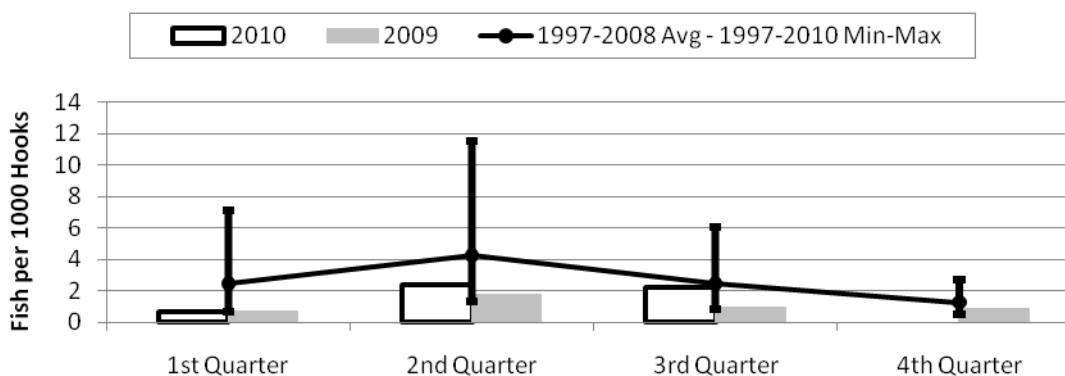
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.29	1.25	1.10	0.00
2009	0.37	0.41	0.78	0.70
1997-2010 Max	1.27	2.15	1.68	1.05
1997-2008 Avg	0.66	0.91	0.89	0.66
1997-2010 Min	0.15	0.41	0.48	0.29

Figure 15. American Samoa Longline Skipjack Tuna Catch per 1000 Hooks by Quarter for 2009 and 2010.



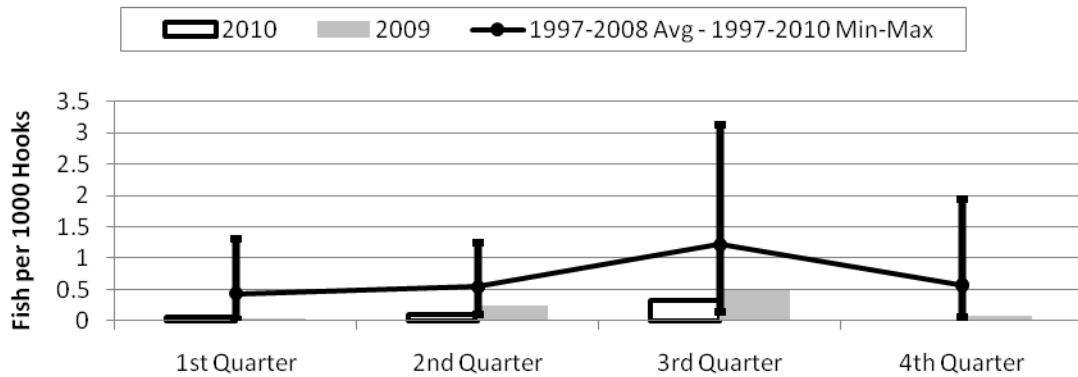
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	1.15	1.59	3.11	0.00
2009	0.44	2.08	3.62	2.55
1997-2010 Max	4.56	5.39	7.84	9.98
1997-2008 Avg	1.69	2.56	4.32	2.82
1997-2010 Min	0.44	0.12	1.56	0.79

Figure 16. American Samoa Yellowfin Tuna Catch per 1000 Hooks by Quarter for 2009 and 2010.



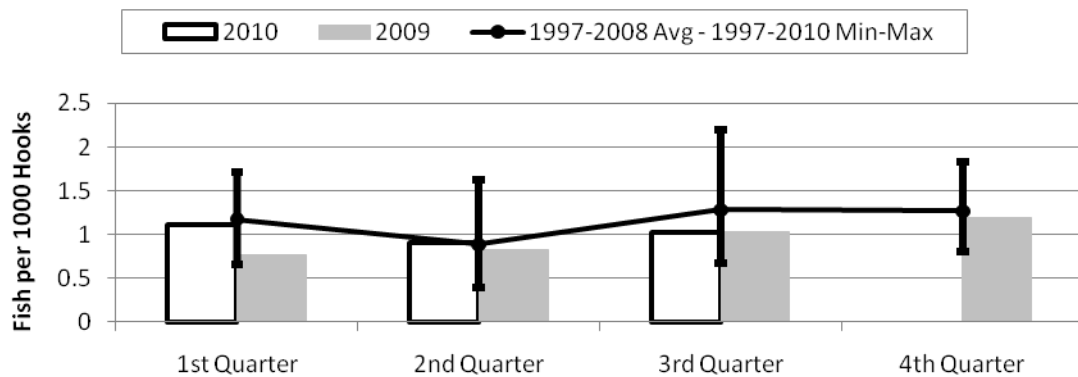
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.71	2.37	2.23	0.00
2009	0.75	1.76	0.99	0.85
1997-2010 Max	7.12	11.51	6.04	2.76
1997-2008 Avg	2.49	4.26	2.47	1.28
1997-2010 Min	0.66	1.34	0.83	0.55

Figure 17. American Samoa Longline Mahimahi Catch per 1000 Hooks by Quarter for 2009 and 2010.



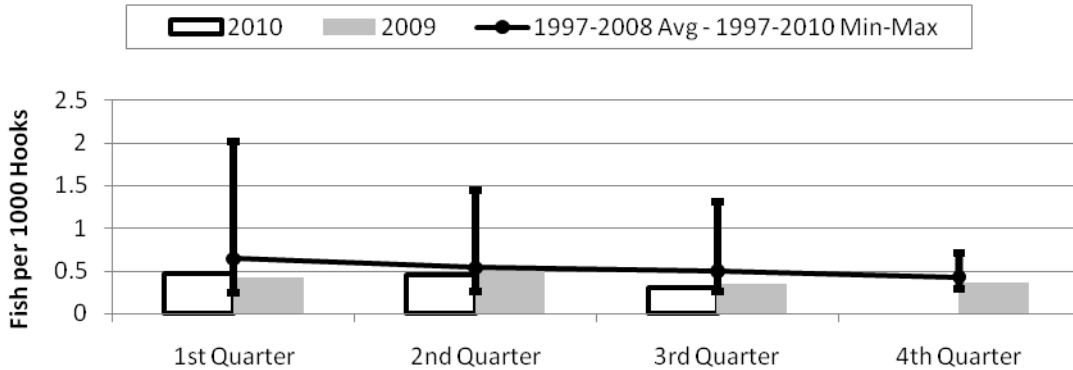
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.06	0.10	0.33	0.00
2009	0.02	0.23	0.49	0.07
1997-2010 Max	1.30	1.25	3.13	1.93
1997-2008 Avg	0.43	0.54	1.22	0.57
1997-2010 Min	0.02	0.10	0.14	0.07

Figure 18. American Samoa Wahoo Catch per 1000 Hooks by Quarter for 2009 and 2010.



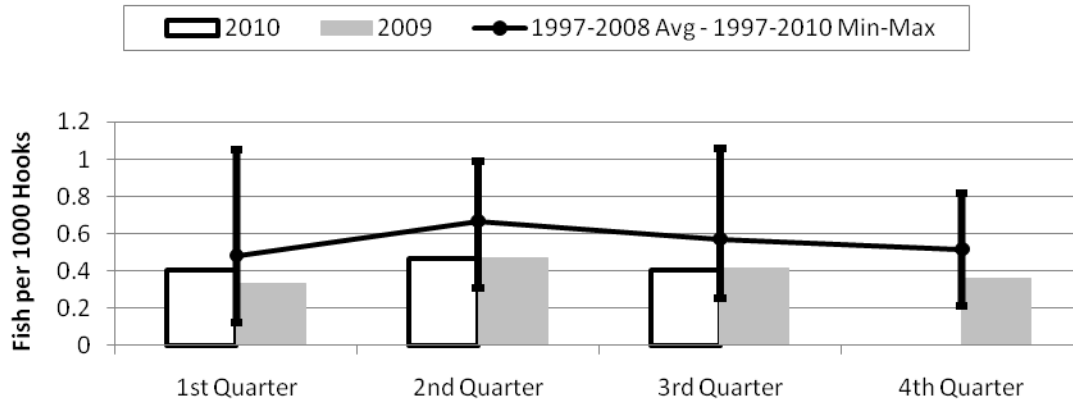
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	1.12	0.90	1.02	0.00
2009	0.76	0.82	1.02	1.19
1997-2010 Max	1.71	1.62	2.20	1.83
1997-2008 Avg	1.17	0.88	1.28	1.27
1997-2010 Min	0.66	0.39	0.67	0.80

Figure 19. American Samoa Billfish Catch per 1000 Hooks by Quarter for 2009 and 2010.



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.48	0.45	0.31	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 Shark Catch per 1000 Hooks by Quarter for 2009 and 2010.



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	0.41	0.47	0.40	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