

PIFSC Report on the Logbook Program for the American Samoa Longline Fishery October-December 2009¹

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Summary statistics of American Samoa longline catch and effort for the fourth quarter of 2009, based on date of haul, are shown in Table 1. The table is derived from all logbook data submitted as of January 28, 2010. As of this date, the documented delinquency rate for the fourth quarter of 2009 was 5.7% with data from two of the 35 large longline vessel trips not yet received or entered in the database.

According to the longline logbook data, 22 vessels turned in some or all of their longline logs for sets made during the fourth quarter of 2009. These 22 vessels made 977 sets and deployed 3,144,592 hooks. The fourth quarter of 2009, which is the first quarter after the September 29, 2009 tsunami and the September 30 closure of one of the two canneries in American Samoa, showed an expected decrease in both longline effort and catch compared with the fourth quarter of 2008, however, this decrease was not as remarkable as might have been expected considering the devastation wrought on other economic activities by the tsunami. Compared to the fourth quarter of 2008, the number of vessels turning in logs this quarter decreased by 8% from 24 vessels to 22 (Fig. 1), the number of sets decreased by 21% (Fig. 2) and the number of hooks used decreased by 18% (Fig. 3). The average number of hooks used per set increased by 5%, from 3064 to 3219, reflecting a continuing trend toward a fishing fleet of almost all larger vessels deploying more hooks per set.

The total catch for all species combined was 66,684 fish (Fig. 4) which is a decrease of 15% compared to the fourth quarter of last year. Albacore continued to dominate the catch with 44,191 fish caught in the fourth quarter of 2009 (Fig. 5), a 28.8% decrease over the 62,106 albacore caught in the fourth quarter of 2008. The catch of other tuna species showed a dramatic increase over the fourth quarter of last year, with bigeye tuna (Fig. 6) increasing by 123%, yellowfin tuna catch (Fig 8) showing an increase of 45% and the catch of skipjack tuna (Fig. 7) increasing by 98%. The only non-tuna incidental catch species showing an increase in catch was wahoo (Fig 10) which increased by 23%. The catch of the other non-tuna species decreased, with mahimahi (Fig. 9) down by 32%, the billfish catch (Fig. 11) decreasing by 12% and the sharks catch (Fig. 12) decreasing by 27%.

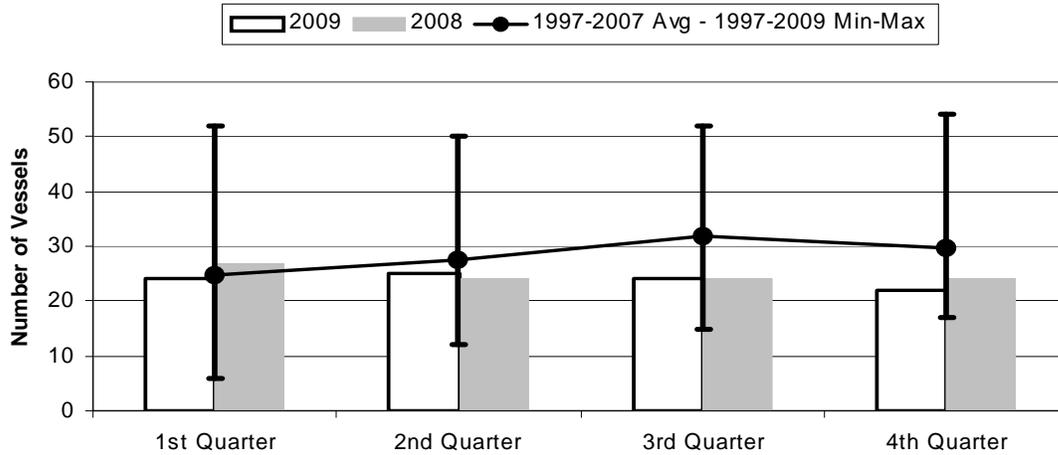
Since the number of hooks decreased by 18% while the catch decreased by only 15%, the catch per 1000 hooks shows a pattern similar to the catch but the percentage changes are higher. The catch per 1000 hooks of albacore (Fig. 13) decreased by 13.6%. The catch per 1000 hooks of bigeye tuna (Fig. 14) showed an increase of 175%, the yellowfin tuna catch per 1000 hooks (Fig. 16) increased by 74% while the catch per 1000 hooks of skipjack tuna (Fig. 15) increased to 240% of its value in the fourth quarter of 2008. The wahoo catch per 1000 hooks (Fig 18) increased by 49% and the billfish CPUE (Fig. 19) was up by 5%, while the mahimahi CPUE (Fig. 17) decreased by 22% and the sharks catch per 1000 hooks (Fig. 20) showed a decrease of 11%.

¹ PIFSC Data Report DR-10-001
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Table 1. Summary of fish catch and nominal fishing effort by American Samoa longline vessels during the fourth quarter of 2009 based on longline logbooks submitted before January 28, 2010

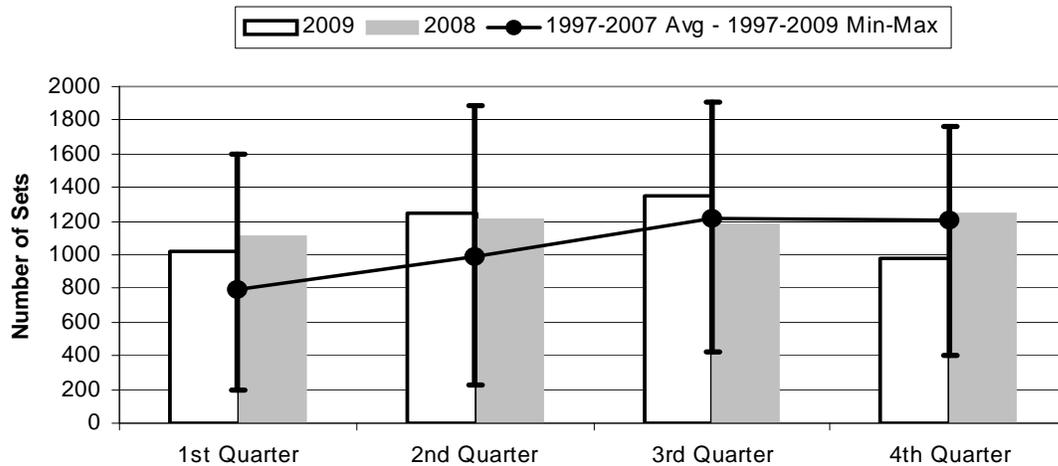
TRIP INFORMATION				
	Number of Vessels:		22	
	Number of Trips:		35	
	Number of Sets:		977	
	1000's of Hooks Set:		3,145	
	Number of Light Sticks Used:		0	
CATCH INFORMATION				
Species	Number Caught	Number Kept	Number Released	Number Caught per 1000 Hooks
BILLFISH				
Blue marlin	529	126	403	0.17
Striped marlin	87	26	61	0.03
Sailfish	139	13	126	0.04
Spearfish	168	5	163	0.05
Swordfish	90	72	18	0.03
TOTAL BILLFISH	1,013	242	771	0.32
SHARKS				
Blue shark	685	0	685	0.22
Shortfin mako shark	110	2	108	0.04
Thresher shark	31	0	31	0.01
White tip oceanic shark	164	0	164	0.05
Sharks (unknown)	49	0	49	0.02
TOTAL SHARKS	1,039	2	1,037	0.33
TUNA				
Albacore tuna	44,191	44,144	47	14.05
Bigeye tuna	2,501	2,360	141	0.80
Bluefin tuna	1	0	1	0.00
Skipjack tuna	8,627	6,393	2,234	2.74
Yellowfin tuna	3,031	2,775	256	0.96
TOTAL TUNA	58,351	55,672	2,679	18.56
OTHER PELAGICS				
Mahimahi	233	118	115	0.07
Moonfish	144	32	112	0.05
Oilfish	1,645	75	1,570	0.52
Pomfret	216	33	183	0.07
Wahoo	3,906	2,816	1,090	1.24
TOTAL OTHER PELAGICS	6,144	3,074	3,070	1.95
NON-PMUS				
Pelagic fishes (unknown)	137	2	135	0.04
TOTAL NON-PMUS	137	2	135	0.04
TOTAL ALL SPECIES	66,684	58,992	7,692	21.21

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



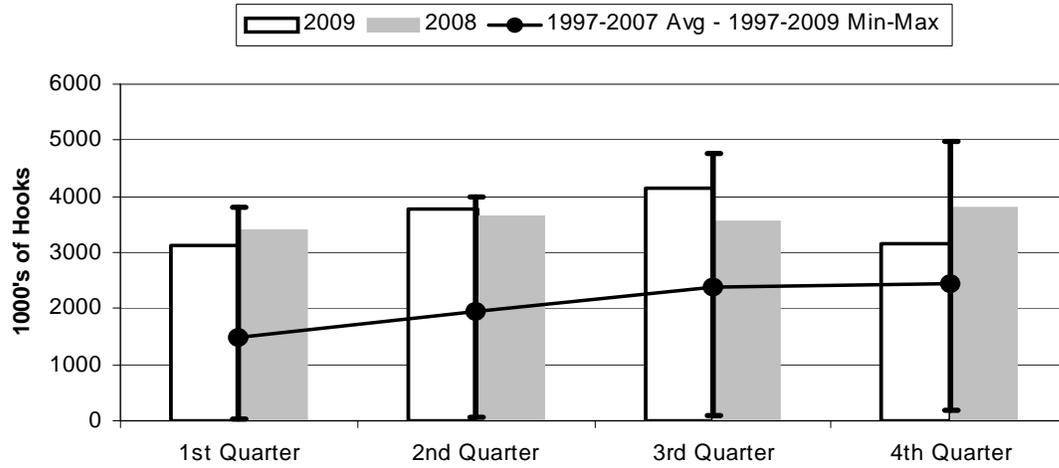
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	24	25	24	22
2008	27	24	24	24
1997-2009 Max	52	50	52	54
1997-2007 Avg	25	27	32	30
1997-2009 Min	6	12	15	17

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



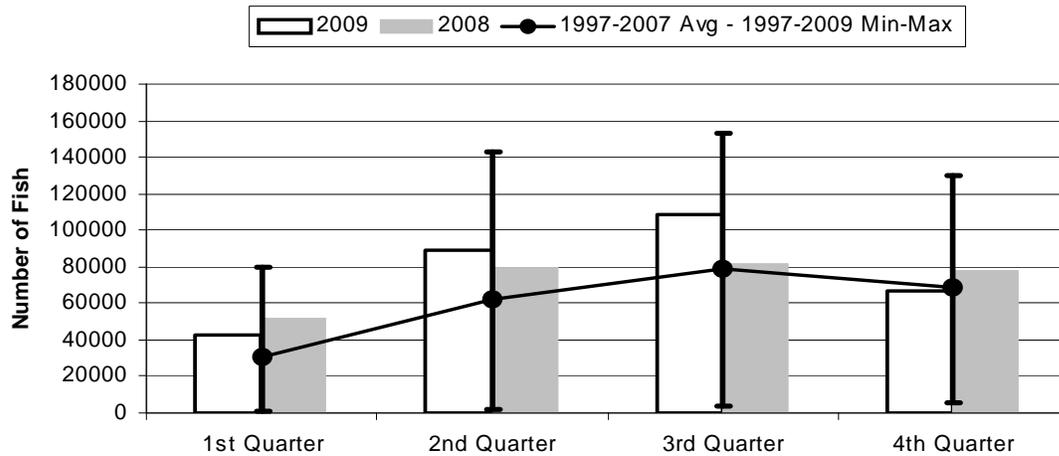
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,021	1,251	1,352	977
2008	1,109	1,215	1,184	1,246
1997-2009 Max	1,602	1,886	1,903	1,758
1997-2007 Avg	794	991	1,220	1,206
1997-2009 Min	192	223	424	402

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



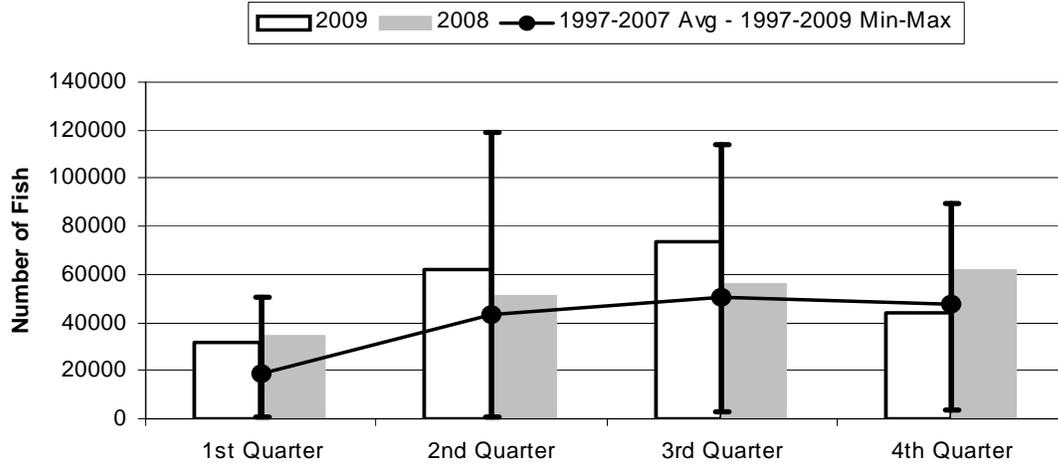
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	3,117	3,786	4,159	3,145
2008	3,402	3,660	3,566	3,818
1997-2009 Max	3,805	3,993	4,769	4,985
1997-2007 Avg	1,493	1,963	2,390	2,443
1997-2009 Min	41	51	101	175

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



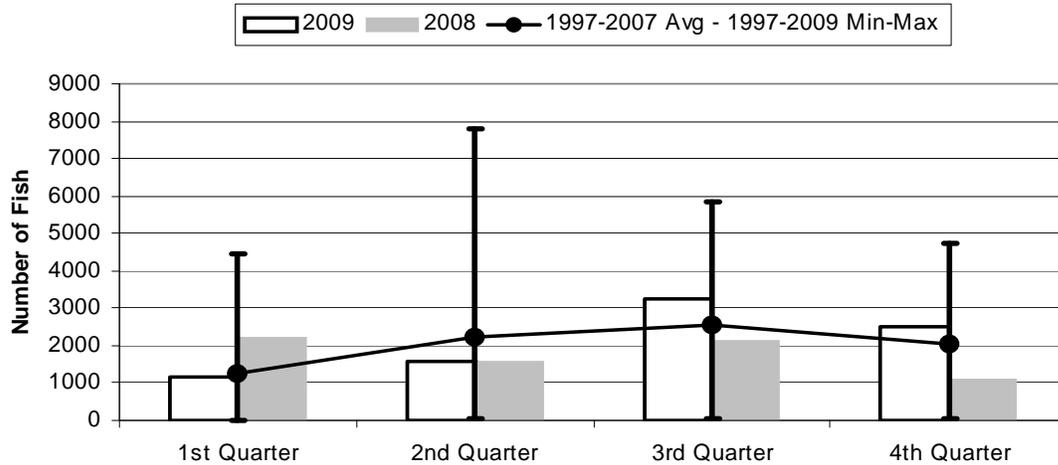
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	42,840	88,674	108,283	66,684
2008	52,273	80,171	81,287	78,353
1997-2009 Max	79,567	142,603	153,301	130,238
1997-2007 Avg	30,987	61,968	78,959	68,445
1997-2009 Min	1,315	1,416	4,127	5,204

Figure 5. American Samoa Longline Albacore Catch by Quarter for



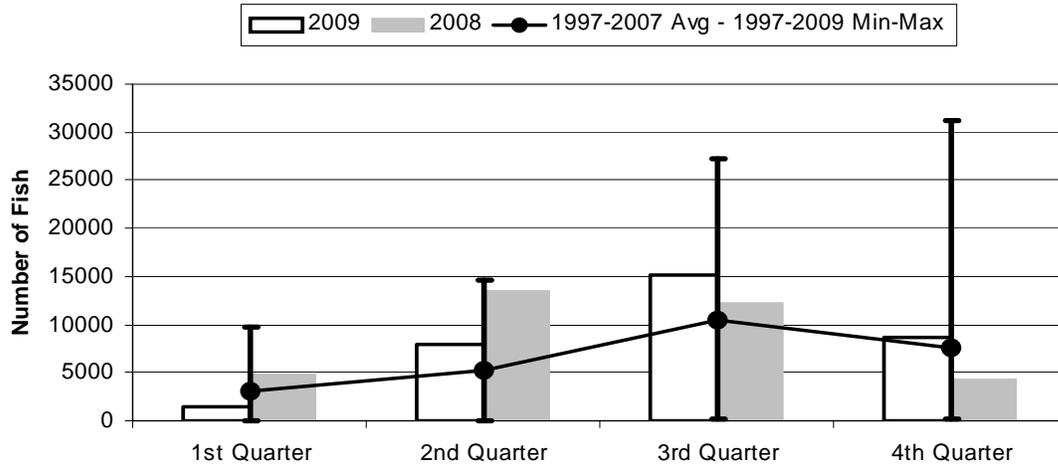
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	31,558	62,161	73,310	44,191
2008	34,945	51,558	56,148	62,104
1997-2009 Max	50,382	118,994	113,831	89,389
1997-2007 Avg	19,114	43,317	50,398	47,411
1997-2009 Min	940	851	3,182	3,466

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



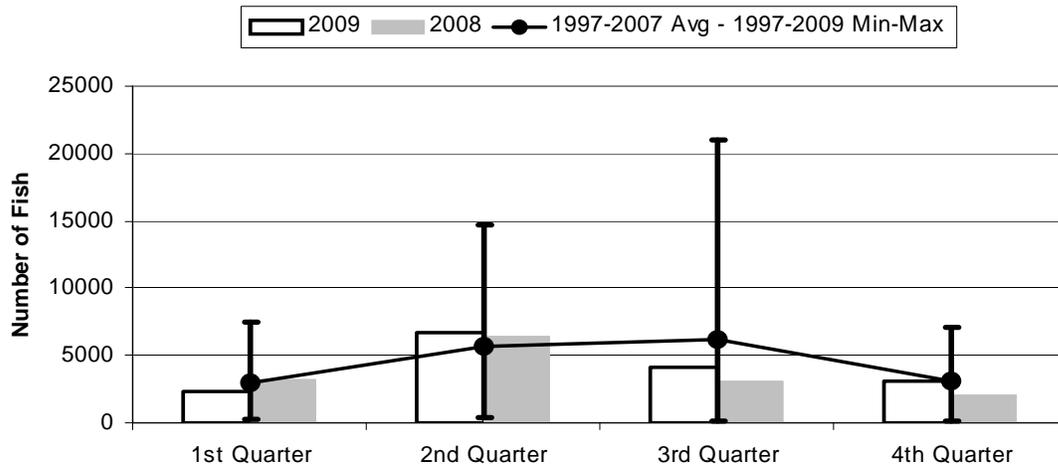
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,146	1,565	3,232	2,501
2008	2,225	1,565	2,138	1,118
1997-2009 Max	4,466	7,785	5,824	4,728
1997-2007 Avg	1,267	2,209	2,535	2,057
1997-2009 Min	6	26	55	55

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



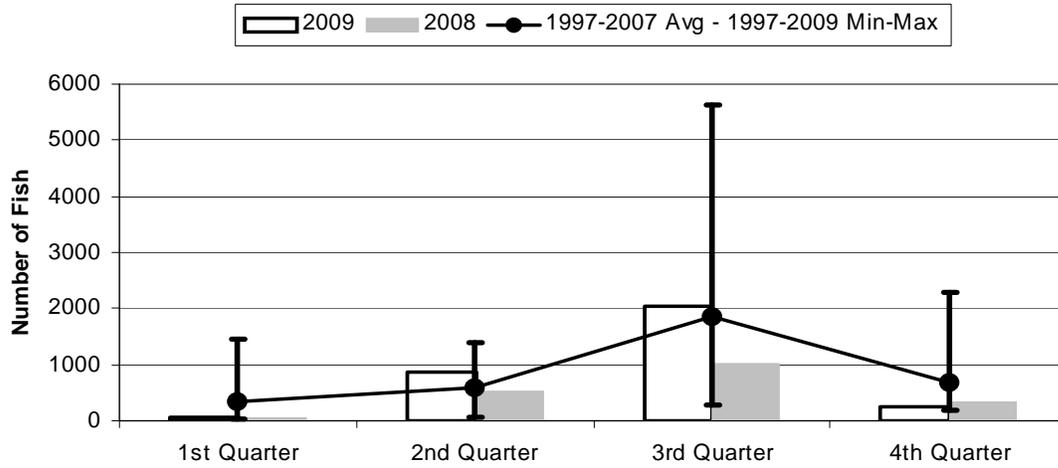
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,383	7,882	15,080	8,627
2008	4,943	13,617	12,188	4,350
1997-2009 Max	9,809	14,606	27,234	31,191
1997-2007 Avg	3,009	5,261	10,518	7,631
1997-2009 Min	0	6	244	178

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



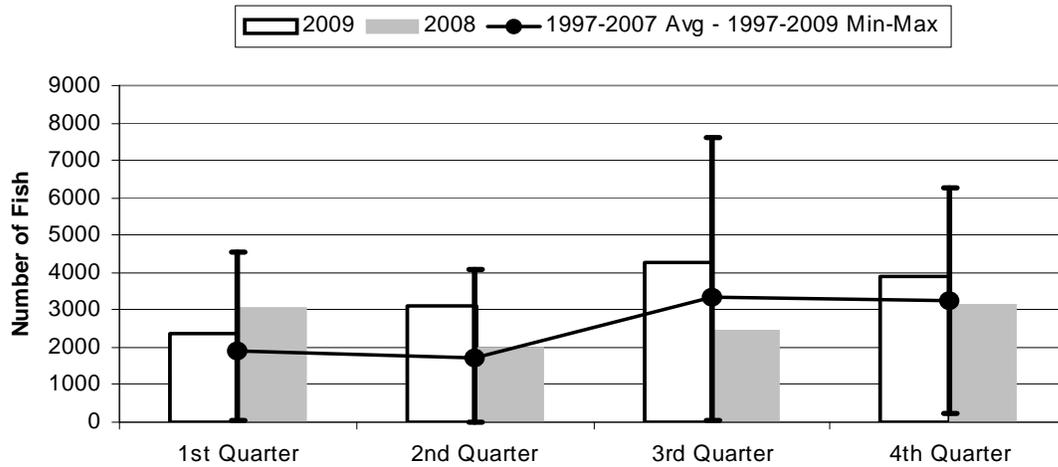
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	2,316	6,666	4,111	3,031
2008	3,197	6,427	3,128	2,081
1997-2009 Max	7,428	14,681	20,993	7,104
1997-2007 Avg	2,932	5,612	6,205	3,140
1997-2009 Min	213	356	84	177

Figure 9. American Samoa Mahimahi Catch by Quarter for



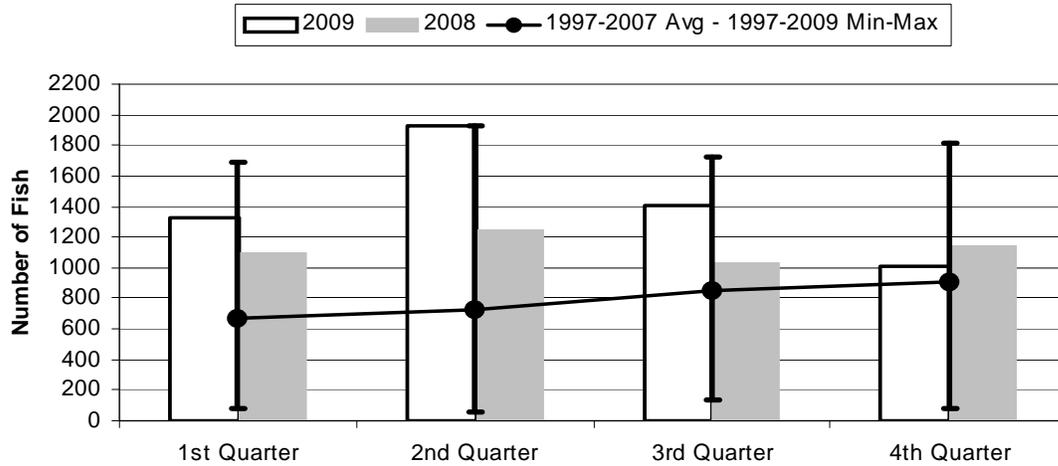
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	65	862	2,027	233
2008	55	516	1,013	345
1997-2009 Max	1,455	1,391	5,642	2,297
1997-2007 Avg	352	598	1,863	675
1997-2009 Min	30	59	280	181

Figure 10. American Samoa Wahoo Catch by Quarter for



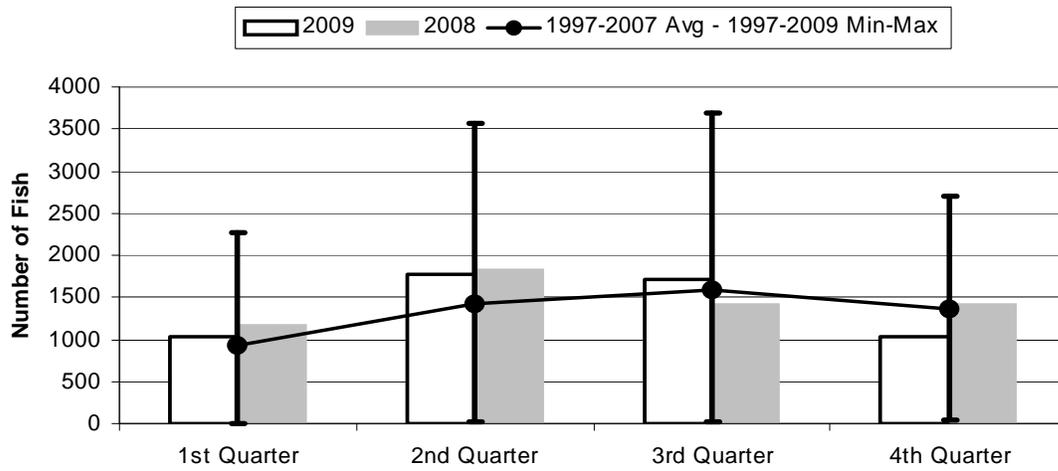
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	2,384	3,105	4,265	3,906
2008	3,078	1,981	2,451	3,174
1997-2009 Max	4,524	4,076	7,629	6,281
1997-2007 Avg	1,879	1,717	3,329	3,248
1997-2009 Min	27	20	68	210

Figure 11. American Samoa Billfish Catch by Quarter for



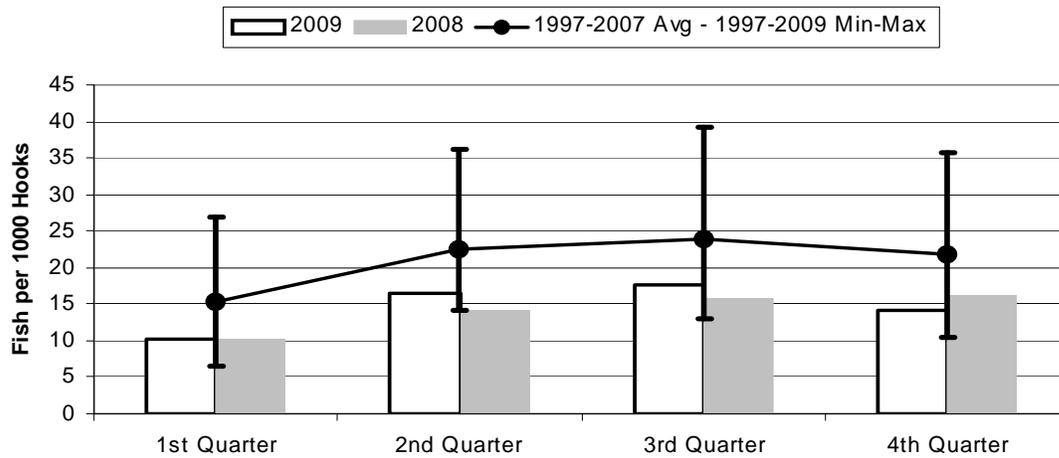
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,322	1,933	1,409	1,013
2008	1,100	1,242	1,029	1,148
1997-2009 Max	1,692	1,933	1,729	1,819
1997-2007 Avg	674	729	845	912
1997-2009 Min	83	58	132	84

Figure 12. American Samoa Shark Catch by Quarter for



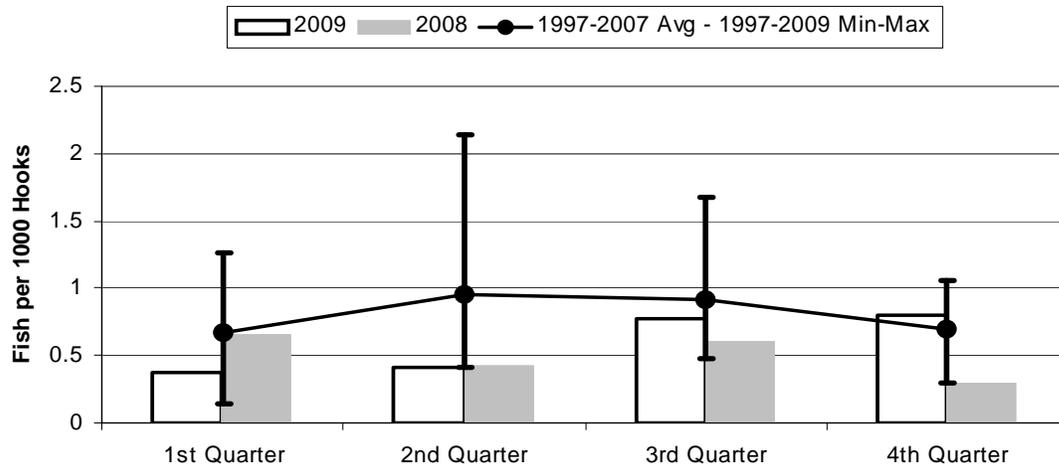
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,034	1,777	1,720	1,039
2008	1,174	1,826	1,428	1,421
1997-2009 Max	2,262	3,562	3,686	2,695
1997-2007 Avg	920	1,415	1,589	1,371
1997-2009 Min	5	16	26	49

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



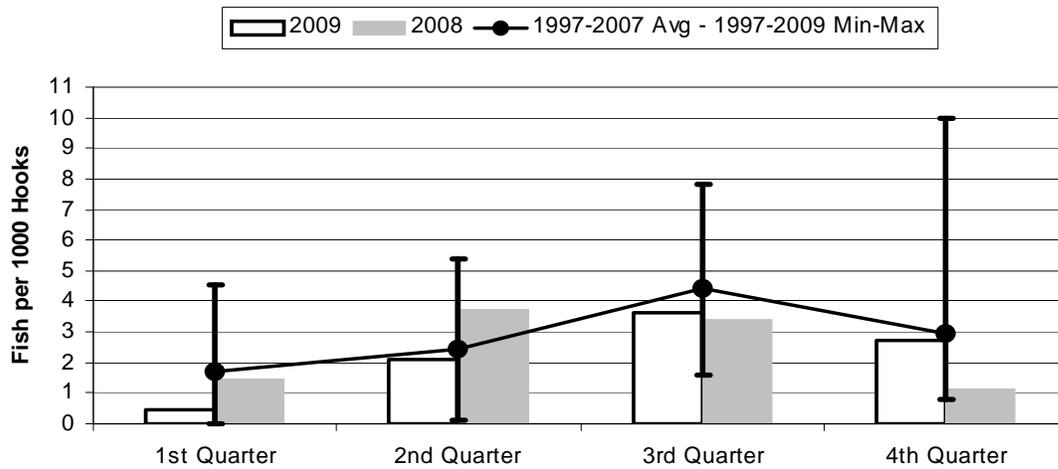
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	10.12	16.42	17.63	14.05
2008	10.27	14.09	15.75	16.27
1997-2009 Max	27.01	36.18	39.13	35.75
1997-2007 Avg	15.42	22.53	23.91	21.74
1997-2009 Min	6.58	14.09	12.96	10.54

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



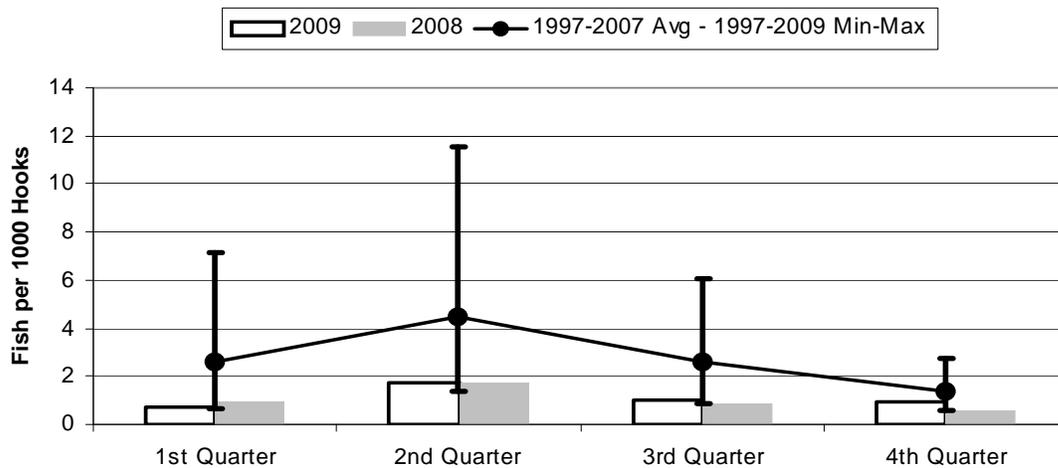
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.37	0.41	0.78	0.80
2008	0.65	0.43	0.60	0.29
1997-2009 Max	1.27	2.15	1.68	1.05
1997-2007 Avg	0.66	0.96	0.91	0.69
1997-2009 Min	0.15	0.41	0.48	0.29

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



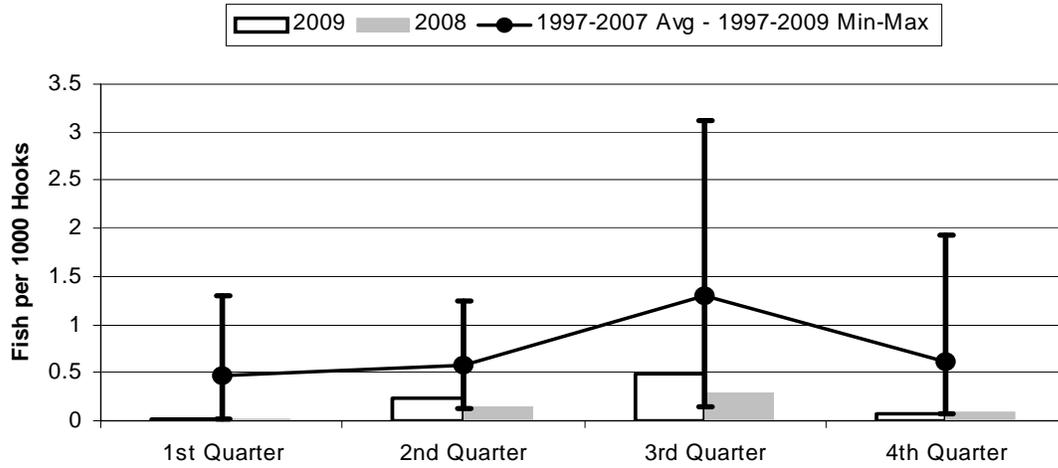
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.44	2.08	3.63	2.74
2008	1.45	3.72	3.42	1.14
1997-2009 Max	4.56	5.39	7.84	9.98
1997-2007 Avg	1.72	2.46	4.40	2.97
1997-2009 Min	0.00	0.12	1.56	0.79

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



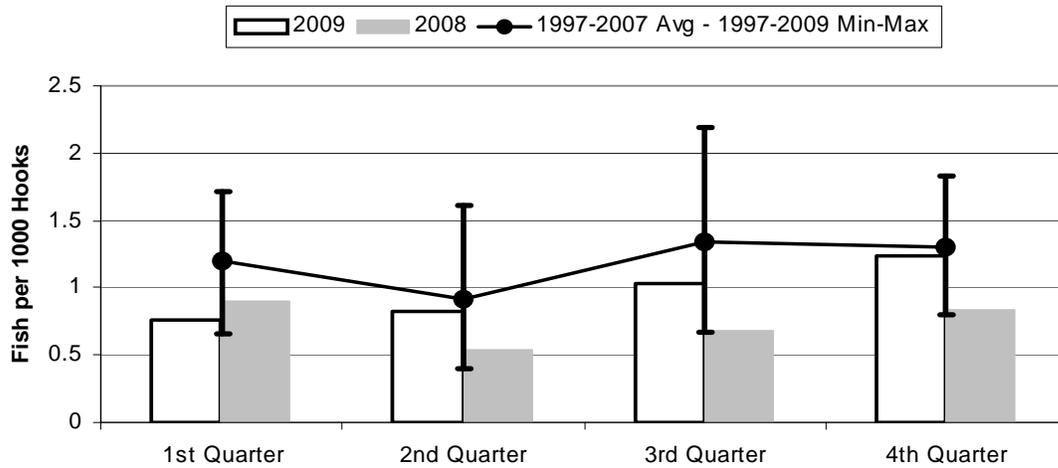
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.74	1.76	0.99	0.96
2008	0.94	1.76	0.88	0.55
1997-2009 Max	7.12	11.51	6.04	2.76
1997-2007 Avg	2.63	4.49	2.62	1.35
1997-2009 Min	0.66	1.34	0.83	0.55

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



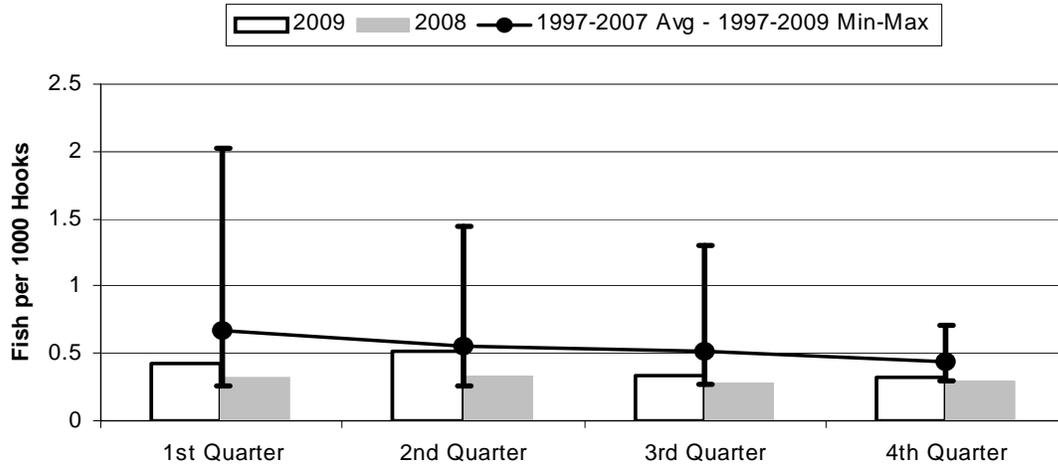
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.02	0.23	0.49	0.07
2008	0.02	0.14	0.28	0.09
1997-2009 Max	1.30	1.25	3.13	1.93
1997-2007 Avg	0.47	0.58	1.30	0.61
1997-2009 Min	0.02	0.12	0.14	0.07

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



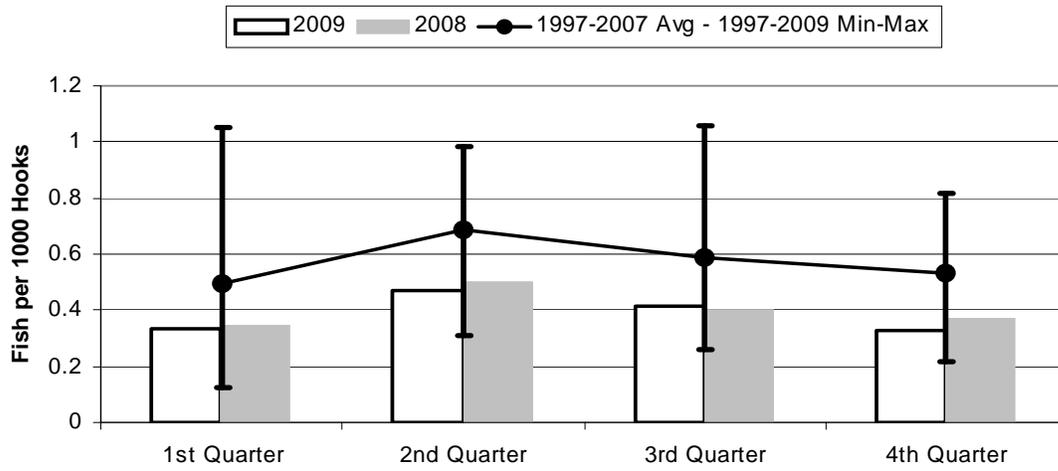
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.76	0.82	1.03	1.24
2008	0.90	0.54	0.69	0.83
1997-2009 Max	1.71	1.62	2.20	1.83
1997-2007 Avg	1.20	0.91	1.33	1.31
1997-2009 Min	0.66	0.39	0.67	0.80

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.42	0.51	0.34	0.32
2008	0.32	0.34	0.29	0.30
1997-2009 Max	2.02	1.44	1.31	0.71
1997-2007 Avg	0.68	0.56	0.52	0.44
1997-2009 Min	0.25	0.26	0.27	0.30

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.33	0.47	0.41	0.33
2008	0.35	0.50	0.40	0.37
1997-2009 Max	1.05	0.99	1.06	0.82
1997-2007 Avg	0.50	0.68	0.59	0.53
1997-2009 Min	0.12	0.31	0.26	0.22