

PIFSC Report on the Logbook Program for the American Samoa Longline Fishery July-September 2009¹

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Pacific Islands Fisheries Science Center

Summary statistics of American Samoa longline catch and effort for the third quarter of 2009, based on date of haul, are shown in Table 1. The table is derived from all logbook data submitted as of December 17, 2009, noting that the tsunami that hit Tutuila in late September may have had an effect on the ultimate completeness of the data in this report, but it is our belief that it includes the vast majority of longline effort which occurred during the third quarter.

According to the longline logbook data, 23 vessels turned in some or all of their longline logs for sets made during the third quarter of 2009. These 23 vessels made 1,218 sets and deployed 3,750,564 hooks. The third quarter of 2009 showed a slight increase in effort and larger increase in catch for most species over the third quarter of last year. Compared to the third quarter of 2008, the number of vessels turning in logs this quarter decreased by 4% from 24 vessels to 23 (Fig. 1), the number of sets increased by 2.9% (Fig. 2) and the number of hooks used increased by 5.2% (Fig. 3). The average number of hooks used per set also increased by 2.2%, from 3011 to 3079, reflecting an almost completed trend toward a fishing fleet of larger vessels deploying more hooks per set.

The total catch for all species combined was 96,846 fish (Fig. 4) which is an increase of 19% compared to the third quarter of last year. Albacore continued to dominate the catch with 65,507 fish caught in the third quarter of 2009 (Fig. 5), a 16.7% increase over the 56,148 albacore caught in the third quarter of 2008. The catch of bigeye tuna (Fig. 6) showed the largest tuna increase of 31%, the yellowfin tuna catch (Fig. 8) showed an increase of 9.0%, while the catch of skipjack tuna (Fig. 7) increased by 10.3% over its value in the third quarter of 2008. The incidental catch of non-tuna species showed the largest increases with the mahimahi catch (Fig. 9) increasing by 81%, the wahoo catch (Fig. 10) up by 58% and the billfish catch (Fig. 11) up by 29%. The sharks catch (Fig. 12) showed a moderate increase of 15%.

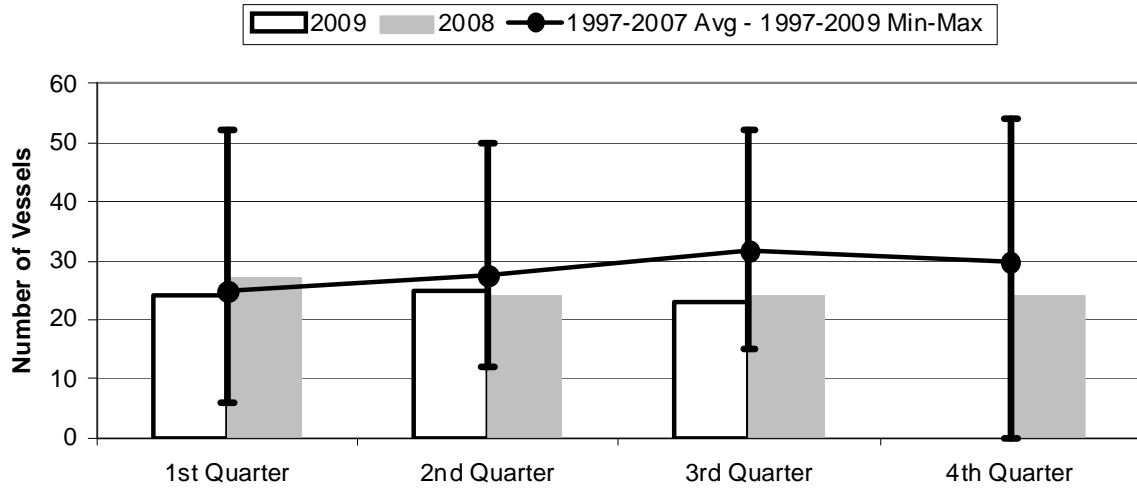
Since both the catch and the number of hooks increased, the catch per 1000 hooks shows a pattern similar to the catch but down a little. The catch per 1000 hooks of albacore (Fig. 13) increased by 10.9%. The catch per 1000 hooks of bigeye tuna (Fig. 14) showed the largest tuna increase of 25%, the yellowfin tuna catch per 1000 hooks (Fig. 16) had a slight increase of 3.4% and the catch per 1000 hooks of skipjack tuna (Fig. 15) increased to 5.0% of its value in the third quarter of 2008. The non-tuna species showed the largest percentage increases with the mahimahi catch per 1000 hooks (Fig. 17) increasing by 75%, the wahoo CPUE (Fig. 18) increasing by 51% and the billfish CPUE (Fig. 19) up by 21%. The sharks catch per 1000 hooks (Fig. 20) showed an increase of 10%.

¹ PIFSC Data Report DR-09-012
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Table 1. Summary of fish catch and nominal fishing effort by American Samoa Longline vessels during the third quarter of 2009 based on longline logbooks submitted before Dec. 17, 2009

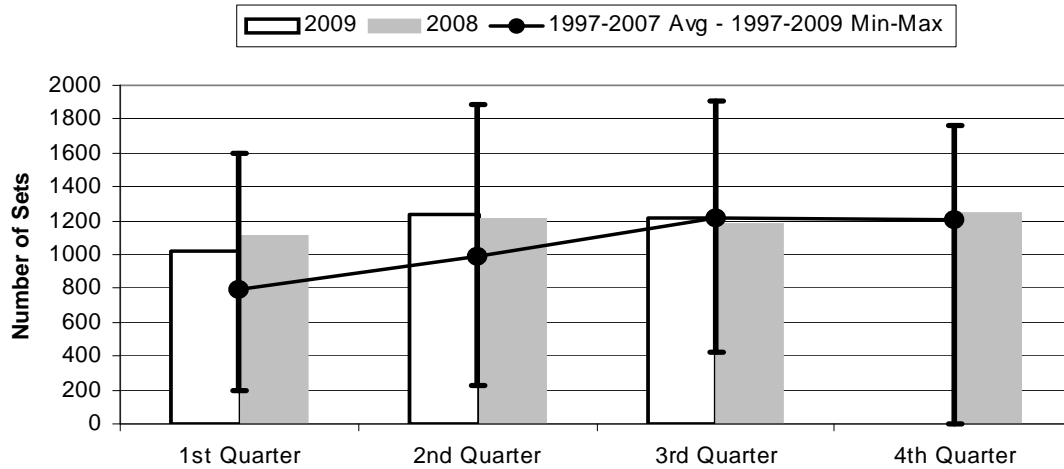
TRIP INFORMATION				
	Number of Vessels:		23	
	Number of Trips:		49	
	Number of Sets:		1,218	
	1000's of Hooks Set:		3,751	
	Number of Light Sticks Used:		3	
CATCH INFORMATION				
Species	Number Caught	Number Kept	Number Released	Number Caught per 1000 Hooks
BILLFISH				
Black marlin	2	0	2	0.00
Blue marlin	654	60	594	0.17
Striped marlin	71	14	57	0.02
Sailfish	188	10	178	0.05
Spearfish	348	21	327	0.09
Swordfish	67	51	16	0.02
TOTAL BILLFISH	1,330	156	1,174	0.35
SHARKS				
Blue shark	1,112	7	1,105	0.30
Shortfin mako shark	140	4	136	0.04
Thresher shark	94	1	93	0.03
White tip oceanic shark	281	8	273	0.07
Sharks (unknown)	13	0	13	0.00
TOTAL SHARKS	1,640	20	1,620	0.44
TUNA				
Albacore tuna	65,507	65,348	159	17.47
Bigeye tuna	2,795	2,583	212	0.75
Bluefin tuna	10	0	10	0.00
Skipjack tuna	13,448	10,639	2,809	3.59
Yellowfin tuna	3,410	3,096	314	0.91
TOTAL TUNA	85,170	81,666	3,504	22.71
OTHER PELAGICS				
Mahimahi	1,833	902	931	0.49
Moonfish	237	36	201	0.06
Oilfish	2,075	171	1,904	0.55
Pomfret	466	30	436	0.12
Wahoo	3,886	2,772	1,114	1.04
TOTAL OTHER PELAGICS	8,497	3,911	4,586	2.27
NON-PMUS				
Pelagic fishes (unknown)	209	0	209	0.06
TOTAL NON-PMUS	209	0	209	0.06
TOTAL ALL SPECIES	96,846	85,753	11,093	25.82

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



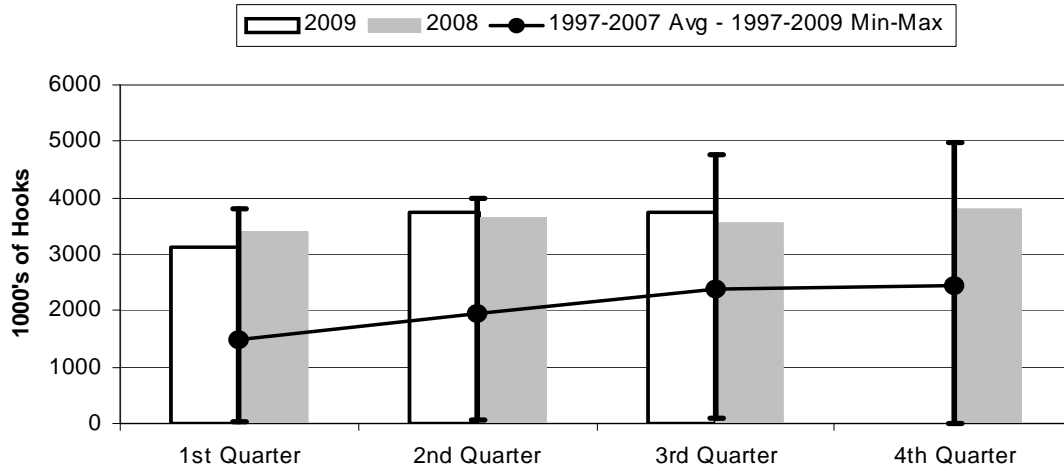
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	24	25	23	0
2008	27	24	24	24
1997-2009 Max	52	50	52	54
1997-2007 Avg	25	27	32	30
1997-2009 Min	6	12	15	0

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



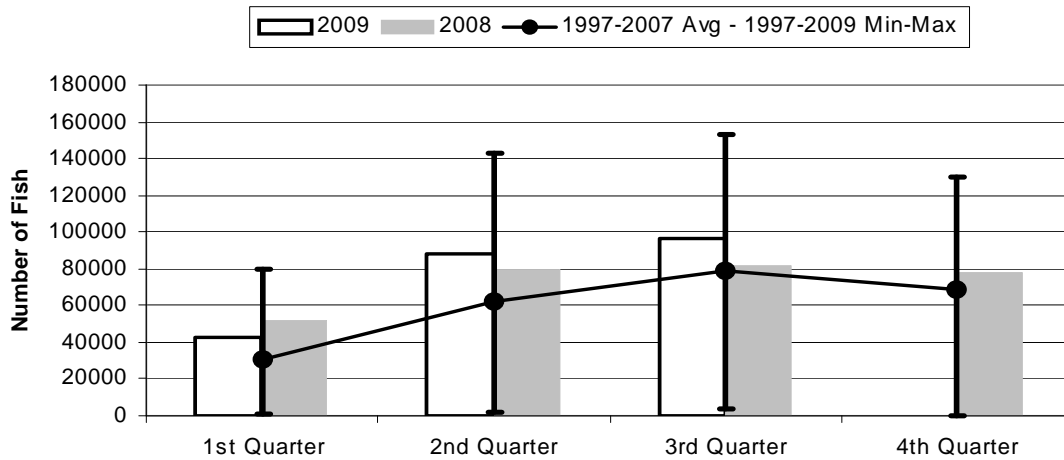
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,021	1,239	1,218	0
2008	1,109	1,215	1,184	1,246
1997-2009 Max	1,602	1,886	1,903	1,758
1997-2007 Avg	794	991	1,220	1,206
1997-2009 Min	192	223	424	0

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



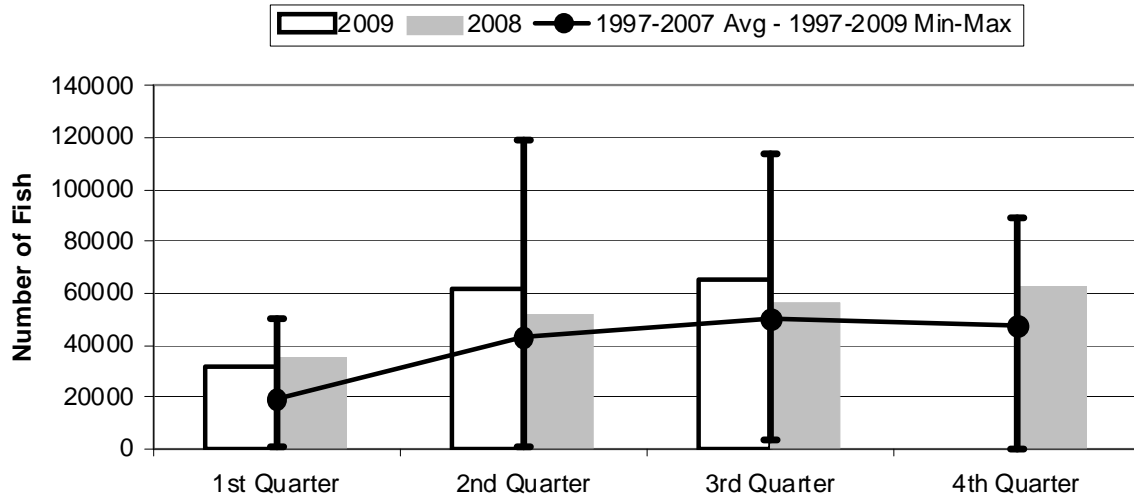
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	3,117	3,753	3,751	0
2008	3,402	3,660	3,566	3,818
1997-2009 Max	3,805	3,993	4,769	4,985
1997-2007 Avg	1,493	1,963	2,390	2,443
1997-2009 Min	41	51	101	0

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



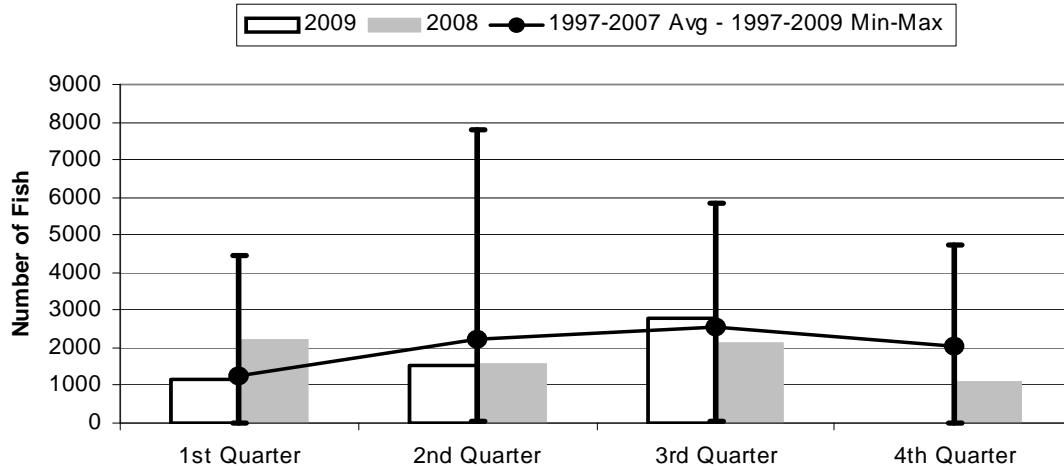
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	42,840	87,712	96,846	0
2008	52,273	80,171	81,287	78,353
1997-2009 Max	79,567	142,603	153,301	130,238
1997-2007 Avg	30,987	61,968	78,960	68,445
1997-2009 Min	1,315	1,416	4,127	0

Figure 5. American Samoa Longline Albacore Catch by Quarter for



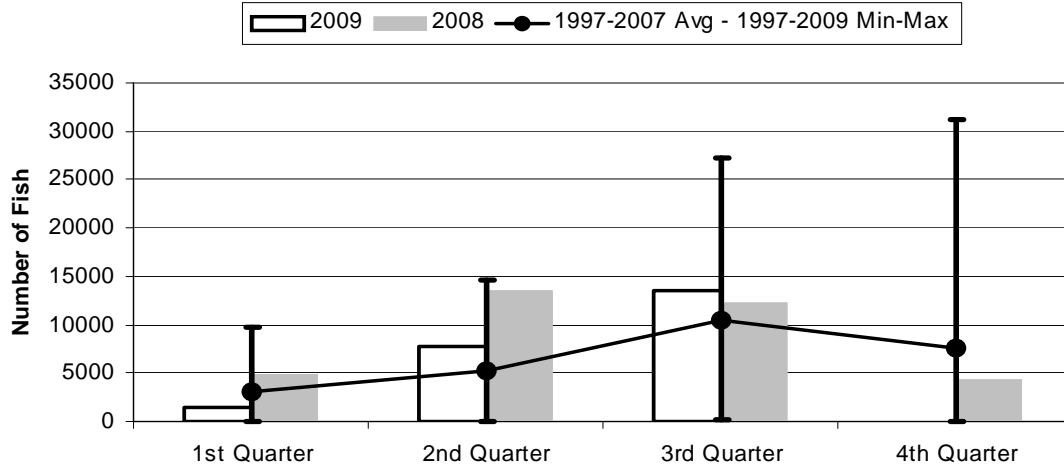
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	31,558	61,383	65,507	0
2008	34,945	51,558	56,148	62,104
1997-2009 Max	50,382	118,994	113,831	89,389
1997-2007 Avg	19,114	43,317	50,399	47,411
1997-2009 Min	940	851	3,182	0

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



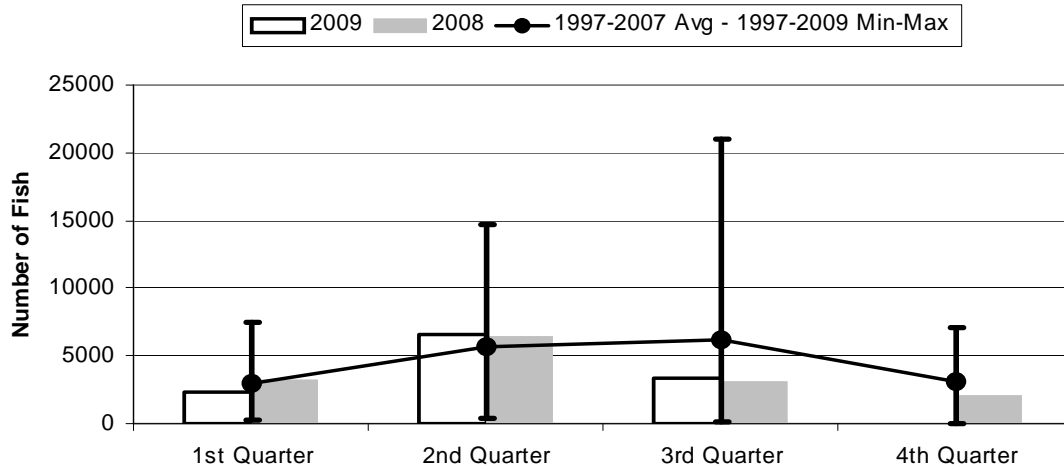
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,146	1,547	2,795	0
2008	2,225	1,565	2,138	1,118
1997-2009 Max	4,466	7,785	5,824	4,728
1997-2007 Avg	1,267	2,209	2,535	2,057
1997-2009 Min	6	26	55	0

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



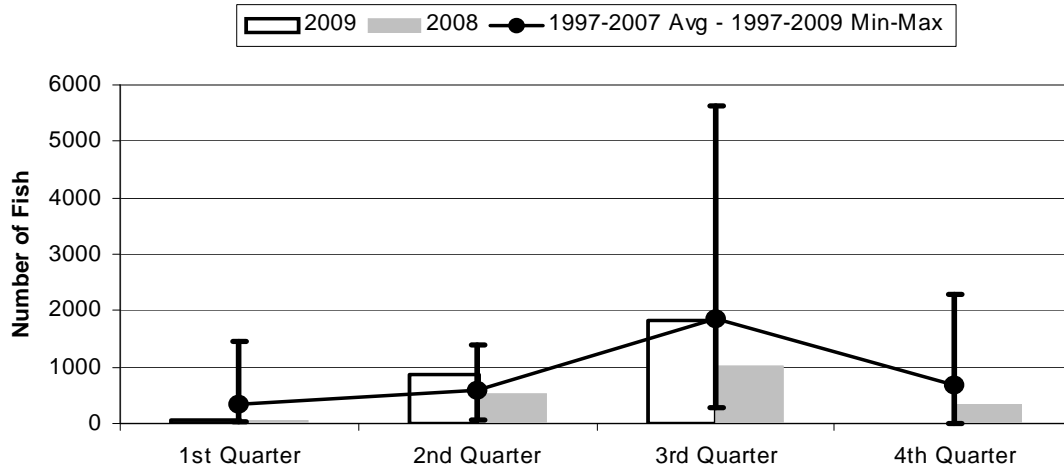
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,383	7,800	13,448	0
2008	4,943	13,617	12,188	4,350
1997-2009 Max	9,809	14,606	27,234	31,191
1997-2007 Avg	3,009	5,261	10,517	7,631
1997-2009 Min	0	6	244	0

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



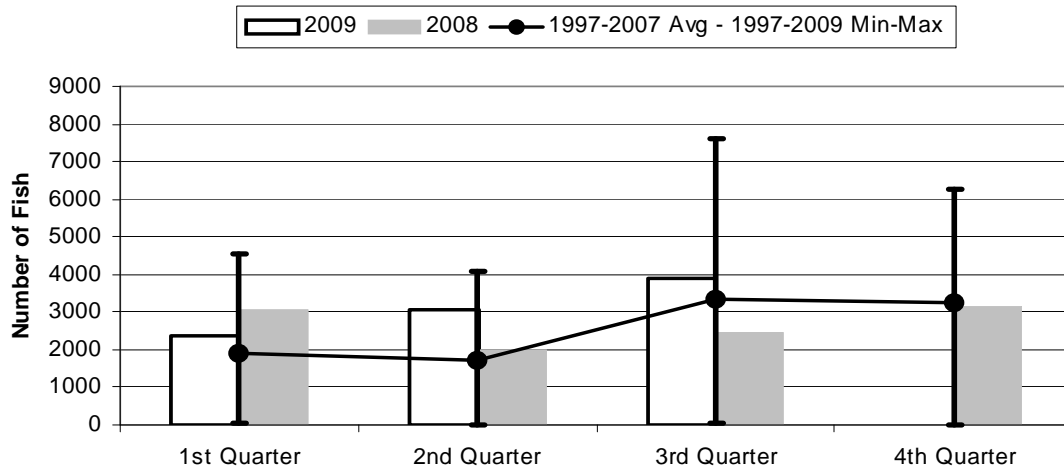
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	2,316	6,617	3,410	0
2008	3,197	6,427	3,128	2,081
1997-2009 Max	7,428	14,681	20,993	7,104
1997-2007 Avg	2,932	5,612	6,205	3,140
1997-2009 Min	213	356	84	0

Figure 9. American Samoa Mahimahi Catch by Quarter for



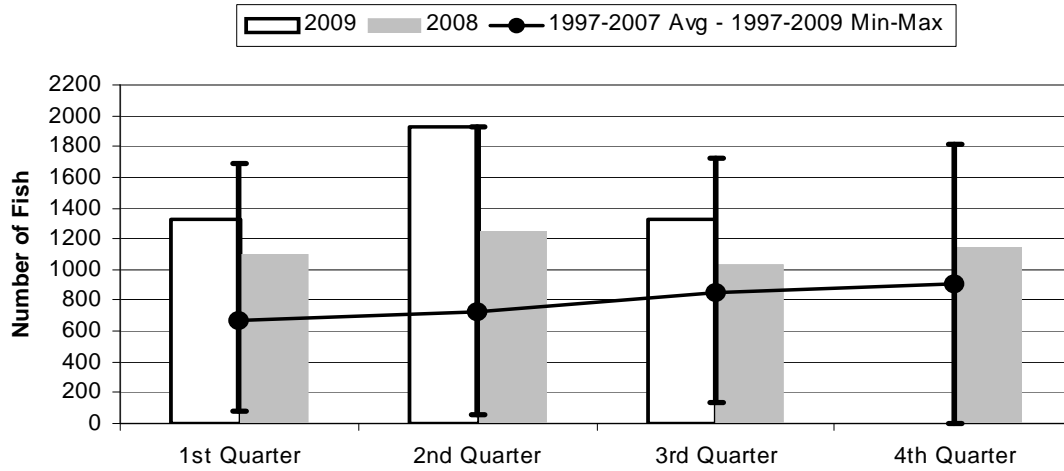
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	65	853	1,833	0
2008	55	516	1,013	345
1997-2009 Max	1,455	1,391	5,642	2,297
1997-2007 Avg	352	598	1,863	675
1997-2009 Min	30	59	280	0

Figure 10. American Samoa Wahoo Catch by Quarter for



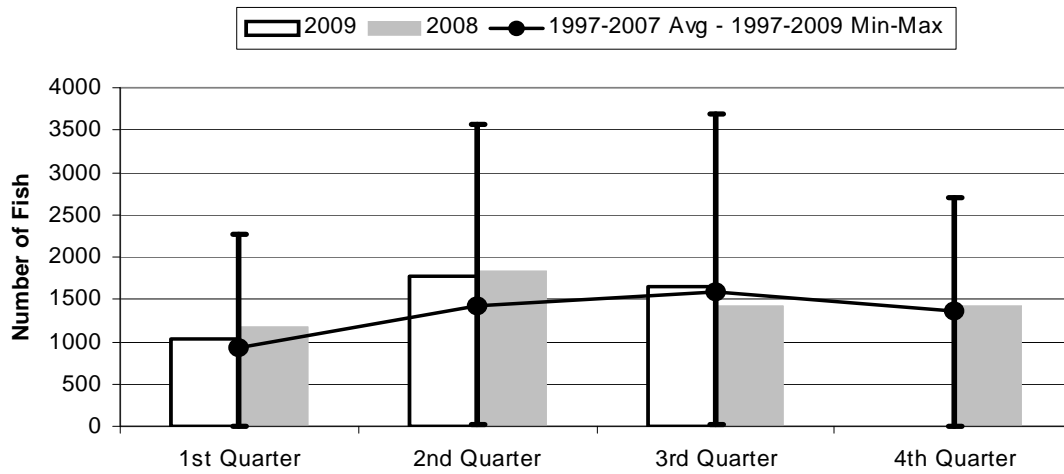
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	2,384	3,084	3,886	0
2008	3,078	1,981	2,451	3,174
1997-2009 Max	4,524	4,076	7,629	6,281
1997-2007 Avg	1,879	1,717	3,329	3,248
1997-2009 Min	27	20	68	0

Figure 11. American Samoa Billfish Catch by Quarter for



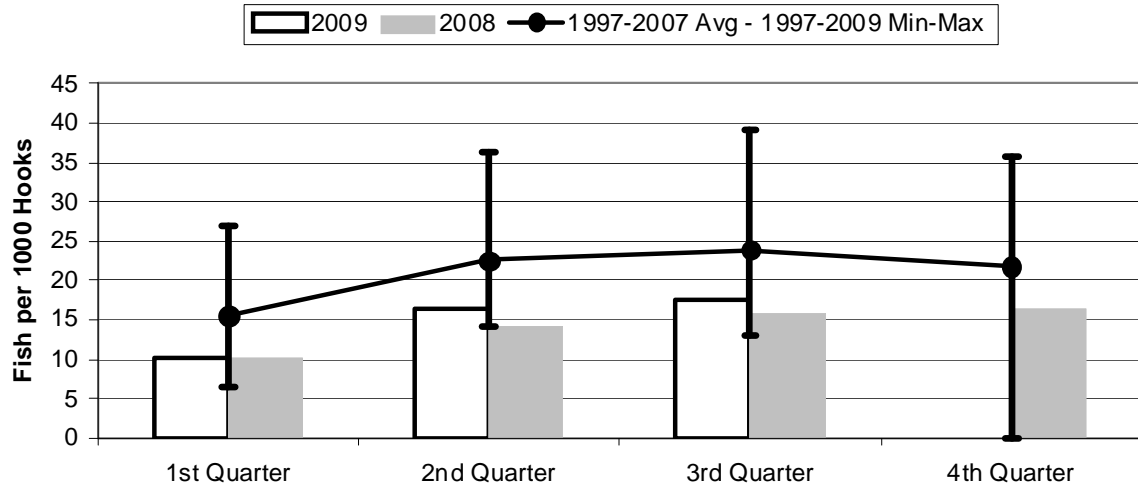
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,322	1,928	1,330	0
2008	1,100	1,242	1,029	1,148
1997-2009 Max	1,692	1,928	1,729	1,819
1997-2007 Avg	674	729	845	912
1997-2009 Min	83	58	132	0

Figure 12. American Samoa Shark Catch by Quarter for



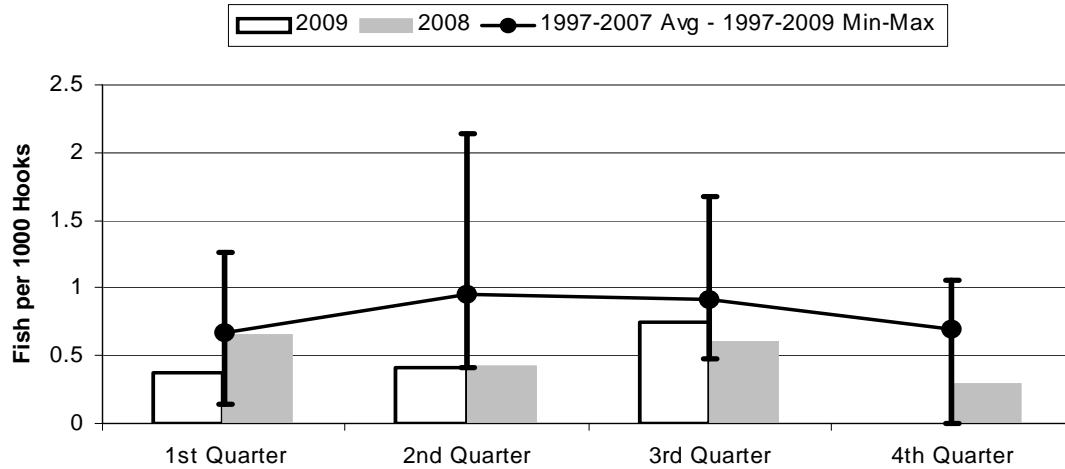
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	1,034	1,777	1,640	0
2008	1,174	1,826	1,428	1,421
1997-2009 Max	2,262	3,562	3,686	2,695
1997-2007 Avg	920	1,415	1,589	1,371
1997-2009 Min	5	16	26	0

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



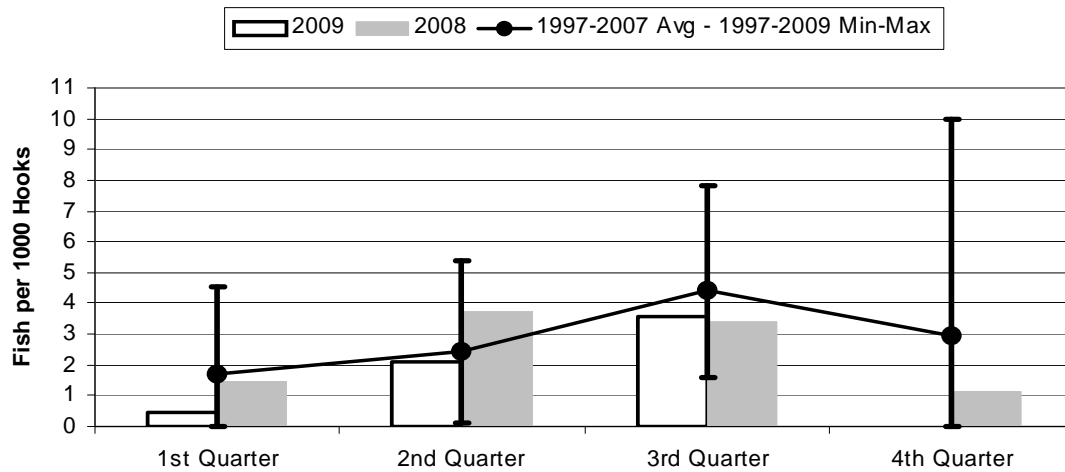
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	10.12	16.35	17.47	0.00
2008	10.27	14.09	15.75	16.27
1997-2009 Max	27.01	36.18	39.13	35.75
1997-2007 Avg	15.42	22.52	23.91	21.74
1997-2009 Min	6.58	14.09	12.96	0.00

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



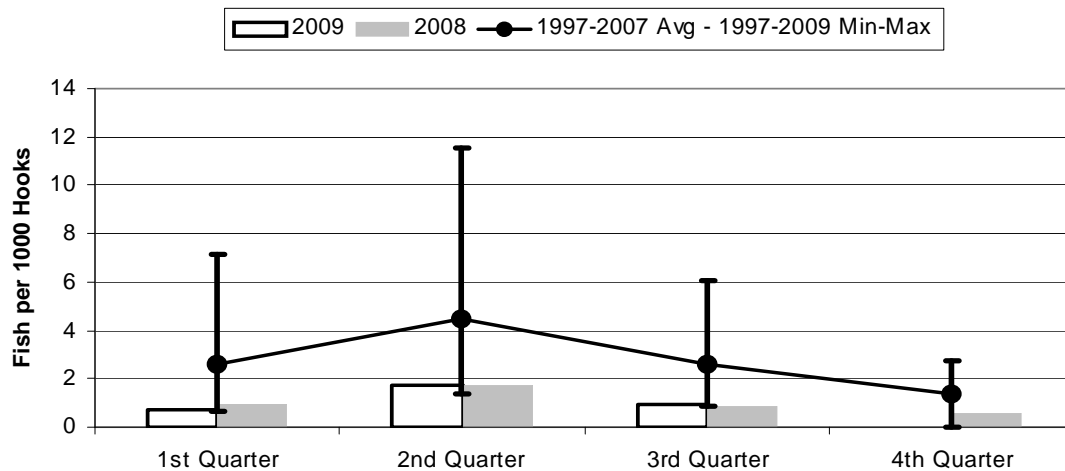
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.37	0.41	0.75	0.00
2008	0.65	0.43	0.60	0.29
1997-2009 Max	1.27	2.15	1.68	1.05
1997-2007 Avg	0.66	0.96	0.91	0.69
1997-2009 Min	0.15	0.41	0.48	0.00

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



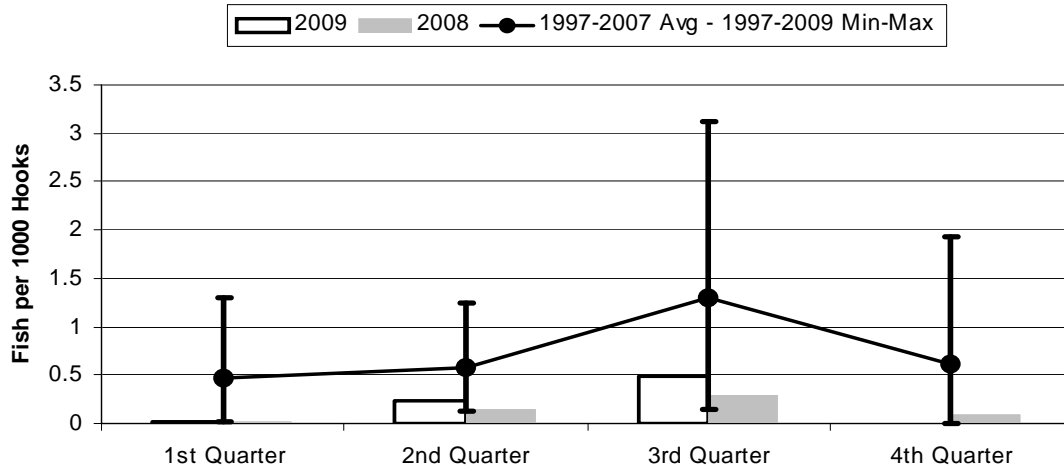
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.44	2.08	3.59	0.00
2008	1.45	3.72	3.42	1.14
1997-2009 Max	4.56	5.39	7.84	9.98
1997-2007 Avg	1.72	2.46	4.40	2.97
1997-2009 Min	0.00	0.12	1.56	0.00

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



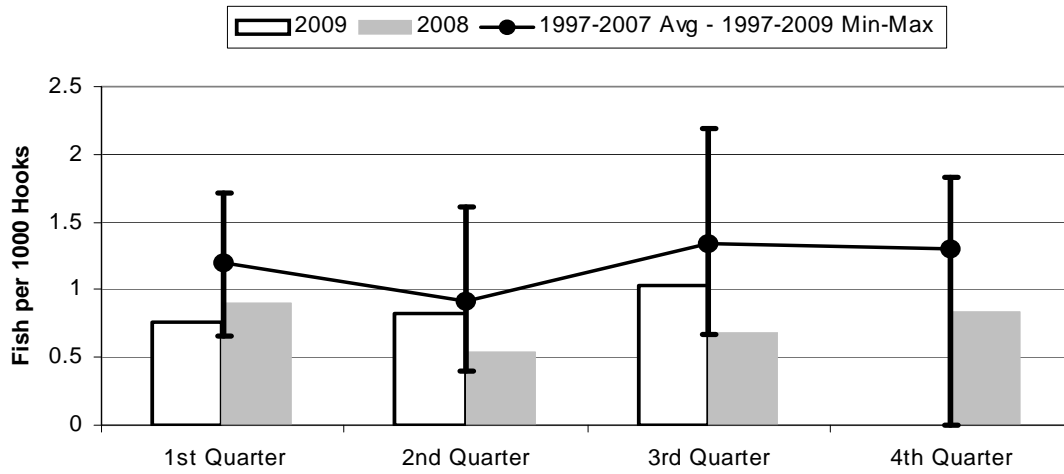
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.74	1.76	0.91	0.00
2008	0.94	1.76	0.88	0.55
1997-2009 Max	7.12	11.51	6.04	2.76
1997-2007 Avg	2.63	4.49	2.62	1.35
1997-2009 Min	0.66	1.34	0.83	0.00

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



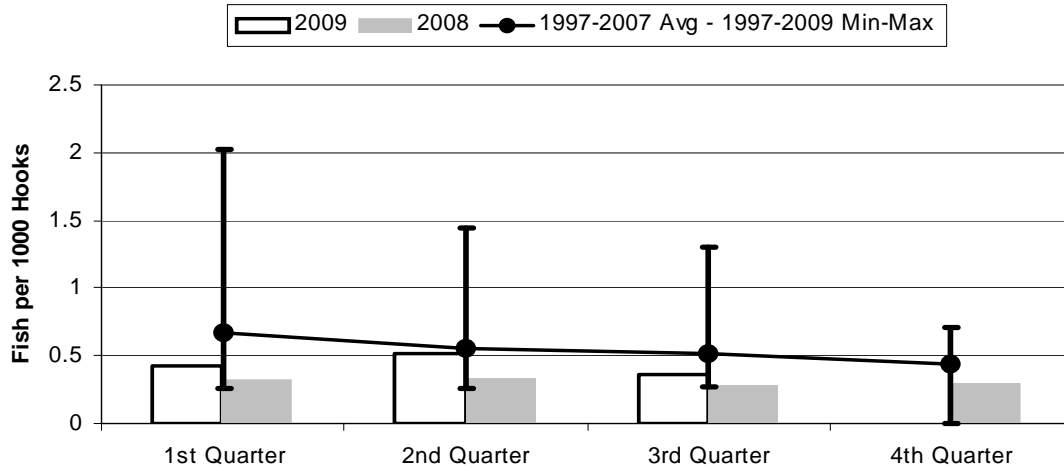
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.02	0.23	0.49	0.00
2008	0.02	0.14	0.28	0.09
1997-2009 Max	1.30	1.25	3.13	1.93
1997-2007 Avg	0.47	0.58	1.30	0.61
1997-2009 Min	0.02	0.12	0.14	0.00

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



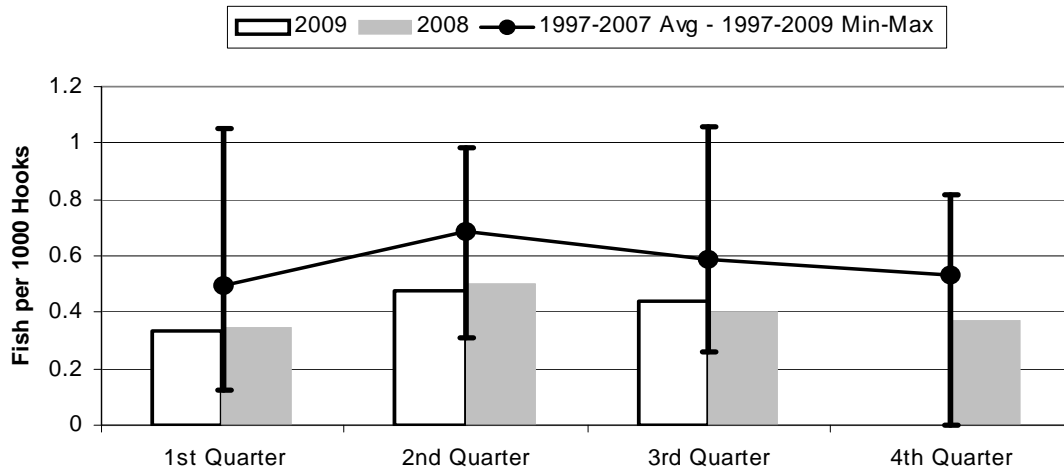
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2009	0.76	0.82	1.04	0.00
2008	0.90	0.54	0.69	0.83
1997-2009 Max	1.71	1.62	2.20	1.83
1997-2007 Avg	1.20	0.91	1.33	1.31
1997-2009 Min	0.66	0.39	0.67	0.00

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	0.35	0.00
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	0.00

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	0.44	0.00
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	0.00