

PIFSC Report on the Logbook Program for the American Samoa Longline Fishery October – December 2011¹

Fisheries Research and Monitoring Division
Pacific Islands Fisheries Science Center

The American Samoa longline fishery's preliminary summary catch and effort statistics for the fourth quarter of 2011, based on date of haul, are shown in Table 1. This table was derived from all federal logbook data submitted by American Samoa-permitted longline vessels to the American Samoa Department of Marine and Wildlife Resources as of February 9, 2012. Table 1 reflects an estimated 100% of the number of sets made by vessels during this period. (Note: all percentages in this report are rounded to nearest whole percent).

Compared to the fourth quarter of 2010, the number of active vessels in the fourth quarter of 2011 decreased by 3 (12%), from 25 vessels to 22 (Fig. 1). The 22 vessels that were active during the fourth quarter of 2011 made 1,034 sets and deployed 2,943,535 hooks. Compared to the fourth quarter of 2010, the number of sets decreased by 17% (Fig. 2) and the number of hooks used decreased by 21% (Fig. 3). The average number of hooks used per set decreased by 5%, from 2,995 last year to 2,846 this year.

The total catch for all species combined was 60,582 fish, which is a decrease of 28% compared to the fourth quarter of last year (Fig. 4). Catches in all quarters of 2011 were below the long-term averages. Catches of all species, with the exception of mahimahi and shark, decreased compared to the fourth quarter of 2010. Although albacore continued to dominate the catch, only 43,983 albacore were caught in the fourth quarter of 2011, 23% less than the 57,017 fish caught in the fourth quarter of 2010 and continuing the trend seen in the first three quarters of 2011; the albacore catch was below the long term average in all quarters (Fig. 5). The 4th quarter 2011 catches of bigeye tuna (Fig. 6), skipjack tuna (Fig. 7), and yellowfin tuna (Fig. 8) decreased by 8%, 58%, and 36%, respectively. Mahimahi numbers caught increased by 64% (Fig. 9), wahoo decreased by 43% (Fig. 10), billfish numbers caught decreased by 11% (Fig. 11), and shark catches increased by 16% (Fig. 12).

The overall catch per unit of effort (CPUE, catch per 1000 hooks), decreased by 9% compared to the fourth quarter of last year, from 22.6 fish per 1000 hooks to 20.6 fish per 1000 hooks. CPUE for the primary target fish, albacore tuna, and other cannery species (yellowfin tuna, skipjack tuna, and wahoo) all decreased, while CPUE for all other incidental species increased. Although the CPUE for albacore was only 3% less than it was in the fourth quarter of 2010, it had set new all-time record lows in the second and third quarters of 2011, and almost met the all-time low in the first quarter, thereby making 2011 the worst year for albacore CPUE on record (Fig. 13). While the fourth quarter 2011 CPUE for bigeye tuna increased by 15% (Fig. 14) compared with last year, the CPUE for skipjack tuna decreased by 46% (Fig. 15) and CPUE for yellowfin tuna decreased by 19% (Fig. 16). CPUE increased by 100% for mahimahi (Fig. 17), 14% for billfish (Fig. 19), and 45% for shark (Fig. 20). CPUE decreased by 29% for wahoo (Fig. 18).

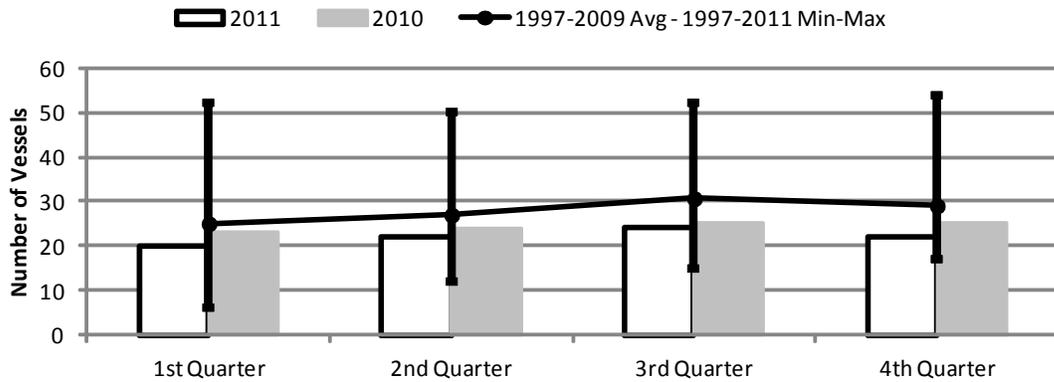
The American Samoa longline fishery continues to experience challenging conditions with catch rates of albacore tuna, the primary target species, well below the long term averages and catch rates of many other marketable species also in decline.

¹ PIFSC Data Report DR-12-006
Issued 17 February 2012

Table 1. Summary of fish catch and nominal fishing effort by American Samoa Longline vessels during the fourth quarter of 2011 based on longline logbooks processed before February 9, 2012.

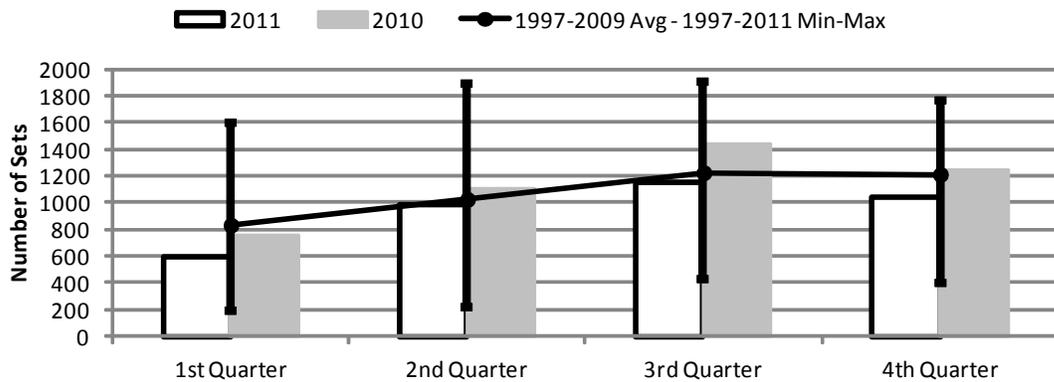
TRIP INFORMATION				
Number of Vessels:	22			
Number of Trips:	66			
Number of Sets:	1,034			
1000's of Hooks Set:	2,943			
Number of Light Sticks Used:	852			
CATCH INFORMATION				
Species	Number Caught	Number Kept	Number Released	Number Caught per 1000 Hooks
BILLFISH				
Black marlin	5	5	0	0.00
Blue marlin	423	121	302	0.14
Striped marlin	101	34	67	0.03
Sailfish	71	27	44	0.02
Spearfish	239	35	204	0.08
Swordfish	92	66	26	0.03
TOTAL BILLFISH	931	288	643	0.32
SHARKS				
Blue shark	887	8	879	0.30
Shortfin mako shark	97	2	95	0.03
Thresher shark	48	0	48	0.02
White tip oceanic shark	152	0	152	0.05
Sharks (unknown)	138	1	137	0.05
TOTAL SHARKS	1,322	11	1,311	0.45
TUNA				
Albacore tuna	43,983	43,868	115	14.94
Bigeye tuna	1,320	1,250	70	0.45
Bluefin tuna	6	0	6	0.00
Skipjack tuna	4,718	3,800	918	1.60
Yellowfin tuna	3,111	3,036	75	1.06
TOTAL TUNA	53,138	51,954	1,184	18.05
OTHER PELAGICS				
Mahimahi	240	176	64	0.08
Moonfish	150	47	103	0.05
Oilfish	2,286	32	2,254	0.78
Pomfret	163	29	134	0.06
Wahoo	2,331	1,672	659	0.79
TOTAL OTHER PELAGICS	5,170	1,956	3,214	1.76
NON-PMUS				
Pelagic fishes (unknown)	21	9	12	0.01
TOTAL NON-PMUS	21	9	12	0.01
TOTAL ALL SPECIES	60,582	54,218	6,364	20.58

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



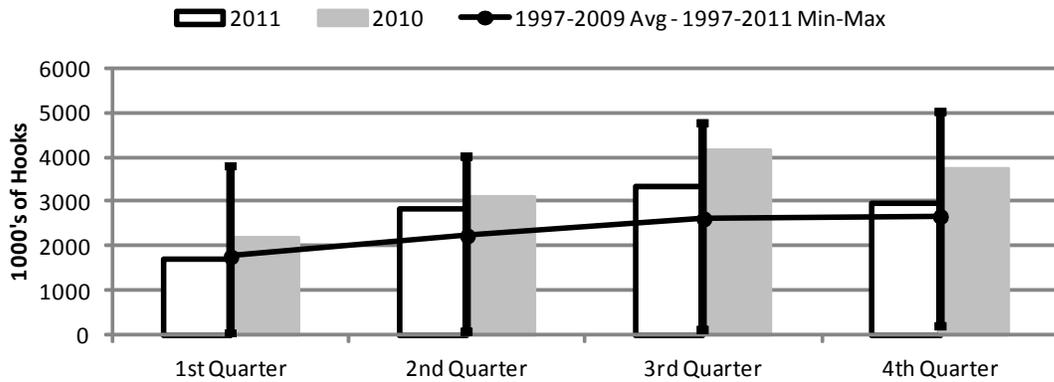
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	20	22	24	22
2010	23	24	25	25
1997-2011 Max	52	50	52	54
1997-2009 Avg	25	27	30	29
1997-2011 Min	6	12	15	17

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



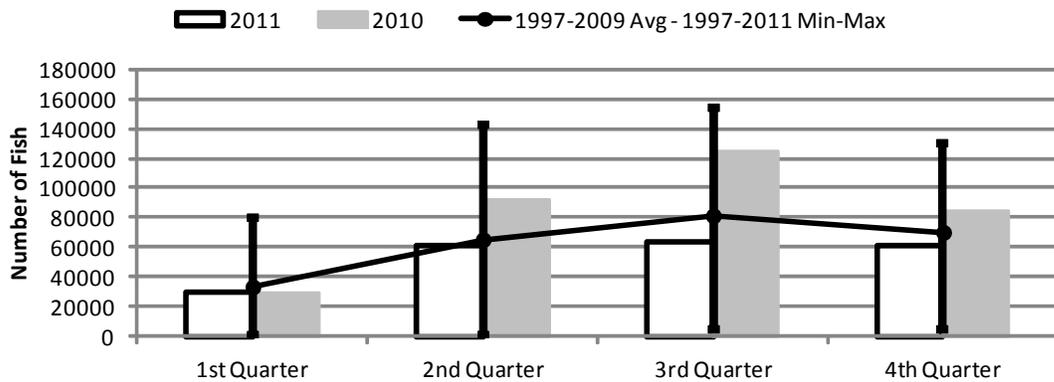
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	601	986	1,155	1,034
2010	756	1,098	1,439	1,241
1997-2011 Max	1,602	1,886	1,904	1,759
1997-2009 Avg	835	1,028	1,227	1,214
1997-2011 Min	192	223	424	401

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



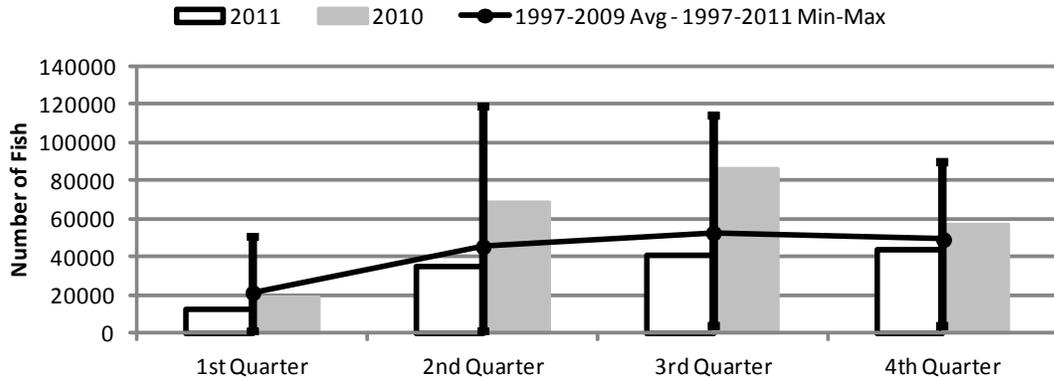
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1,695	2,811	3,317	2,943
2010	2,187	3,112	4,157	3,717
1997-2011 Max	3,805	3,992	4,769	4,985
1997-2009 Avg	1,765	2,233	2,616	2,668
1997-2011 Min	41	50	101	175

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



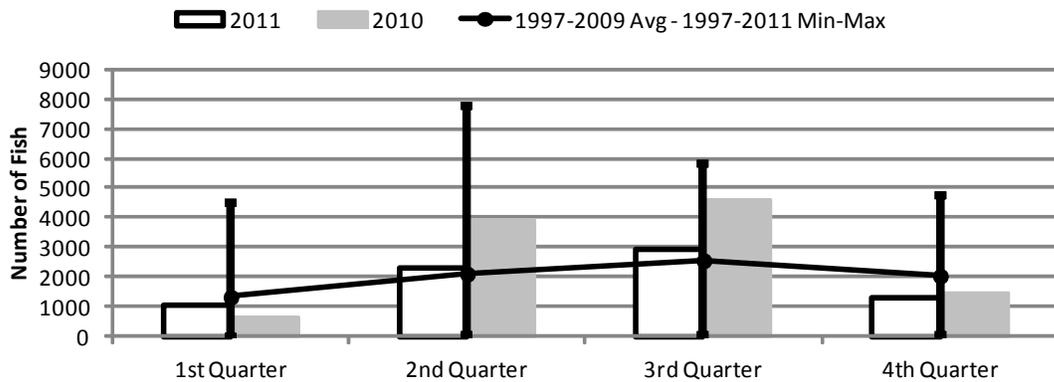
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	29,498	60,624	63,705	60,582
2010	29,416	92,191	124,233	84,087
1997-2011 Max	79,588	142,603	153,301	130,238
1997-2009 Avg	33,566	65,428	81,477	70,309
1997-2011 Min	1,315	1,416	4,127	5,201

Figure 5. American Samoa Longline Albacore Catch by Quarter for



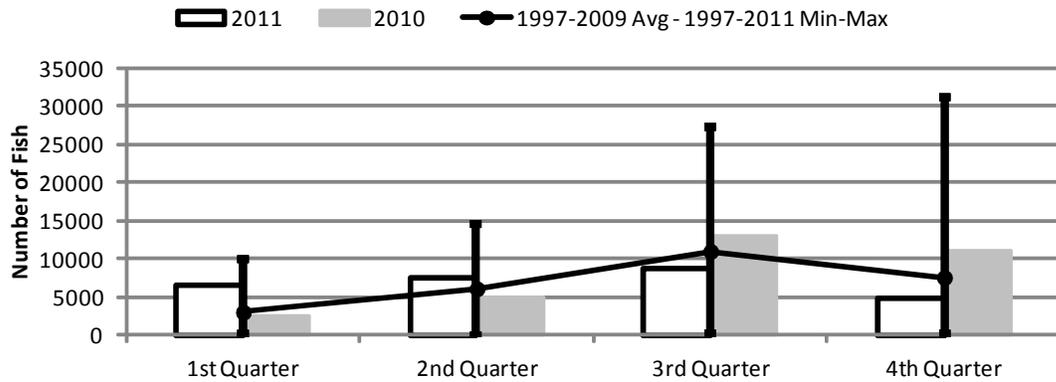
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	11,899	34,320	40,269	43,983
2010	18,828	68,028	85,638	57,017
1997-2011 Max	50,382	118,994	113,831	89,389
1997-2009 Avg	21,311	45,403	52,663	49,186
1997-2011 Min	940	851	3,182	3,465

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



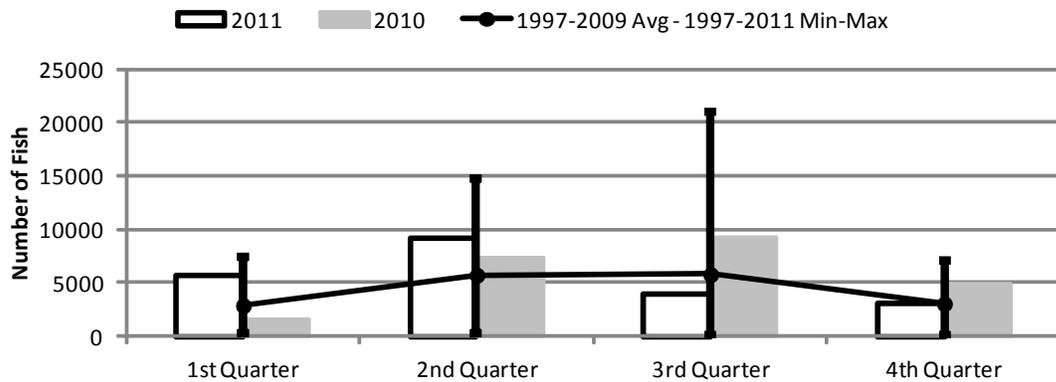
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1,043	2,303	2,948	1,320
2010	633	3,875	4,566	1,436
1997-2011 Max	4,470	7,785	5,824	4,728
1997-2009 Avg	1,333	2,110	2,559	2,040
1997-2011 Min	6	26	55	55

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



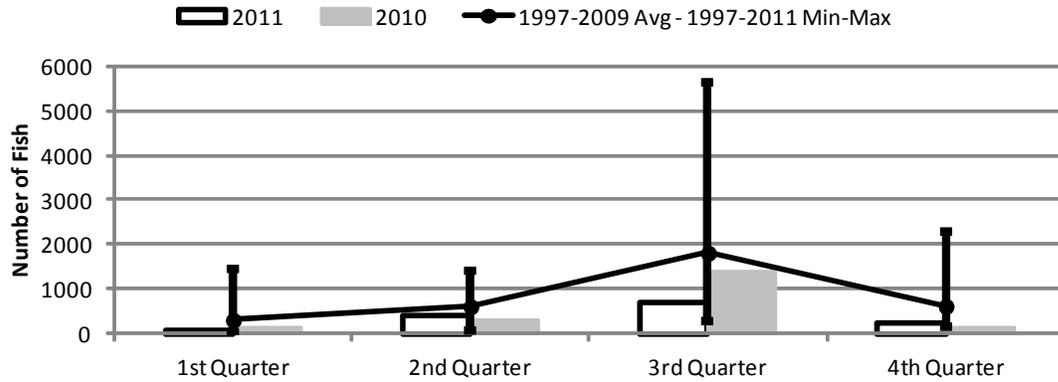
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	6,446	7,465	8,717	4,718
2010	2,506	4,936	12,919	11,123
1997-2011 Max	9,801	14,606	27,234	31,191
1997-2009 Avg	3,032	6,105	11,002	7,574
1997-2011 Min	116	6	244	178

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



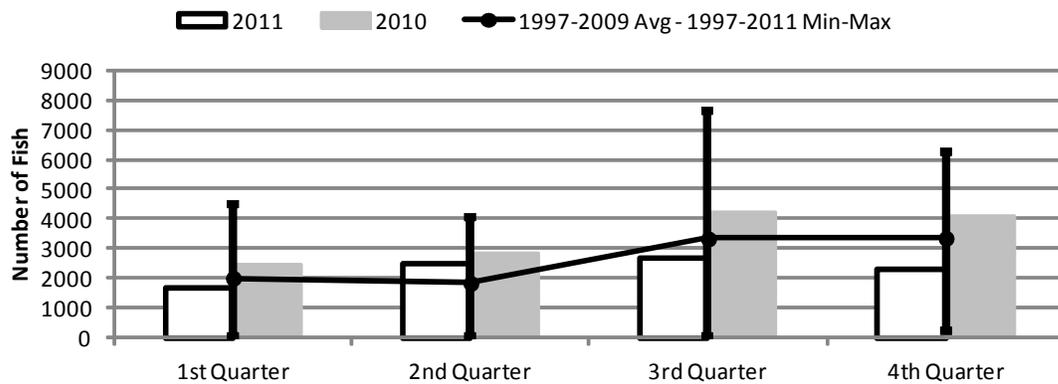
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	5,645	9,185	3,887	3,111
2010	1,547	7,376	9,295	4,869
1997-2011 Max	7,426	14,681	20,993	7,104
1997-2009 Avg	2,908	5,756	5,819	3,079
1997-2011 Min	213	356	84	177

Figure 9. American Samoa Mahimahi Catch by Quarter for



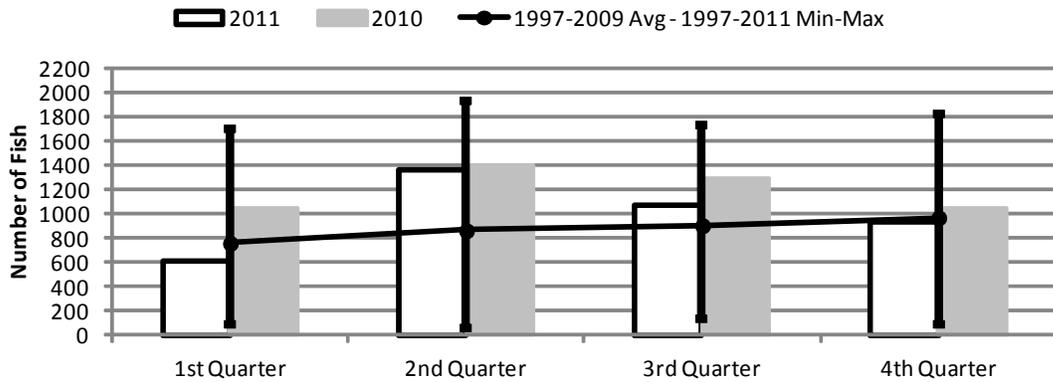
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	72	405	690	240
2010	131	311	1,367	146
1997-2011 Max	1,454	1,392	5,642	2,297
1997-2009 Avg	307	612	1,810	619
1997-2011 Min	30	59	280	146

Figure 10. American Samoa Wahoo Catch by Quarter for



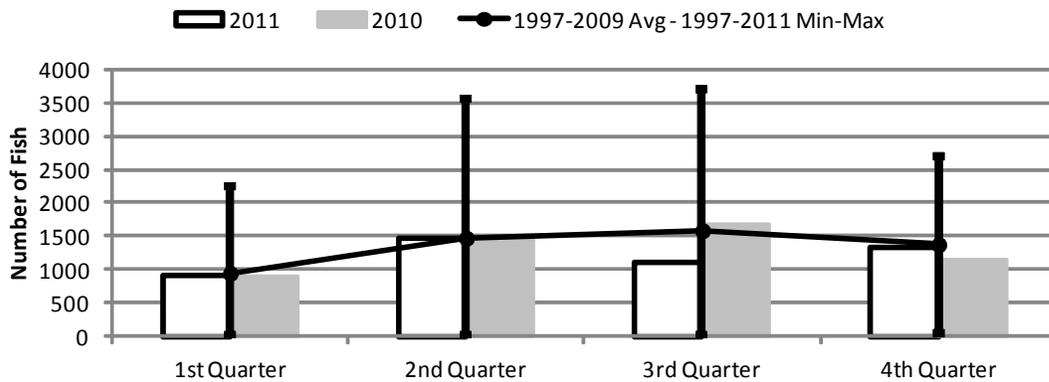
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1,682	2,484	2,701	2,331
2010	2,441	2,810	4,220	4,115
1997-2011 Max	4,524	4,076	7,629	6,281
1997-2009 Avg	2,011	1,844	3,336	3,358
1997-2011 Min	27	20	68	210

Figure 11. American Samoa Billfish Catch by Quarter for



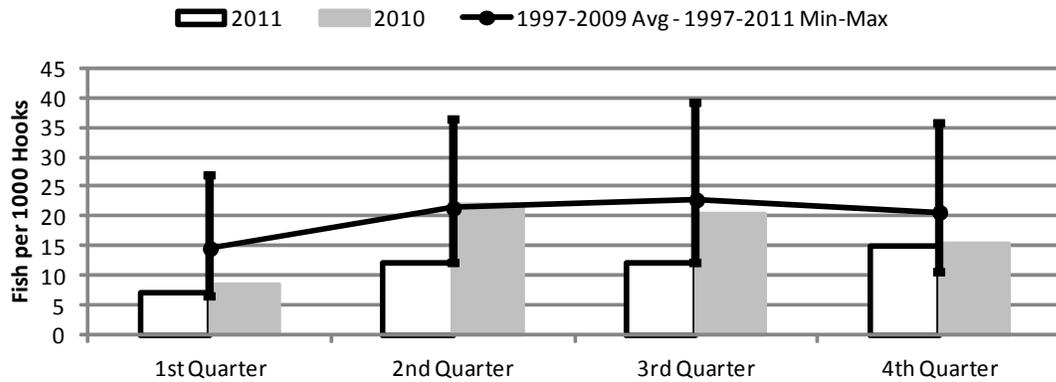
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	611	1,367	1,061	931
2010	1,043	1,404	1,297	1,046
1997-2011 Max	1,692	1,934	1,729	1,819
1997-2009 Avg	757	861	902	968
1997-2011 Min	83	58	132	84

Figure 12. American Samoa Shark Catch by Quarter for



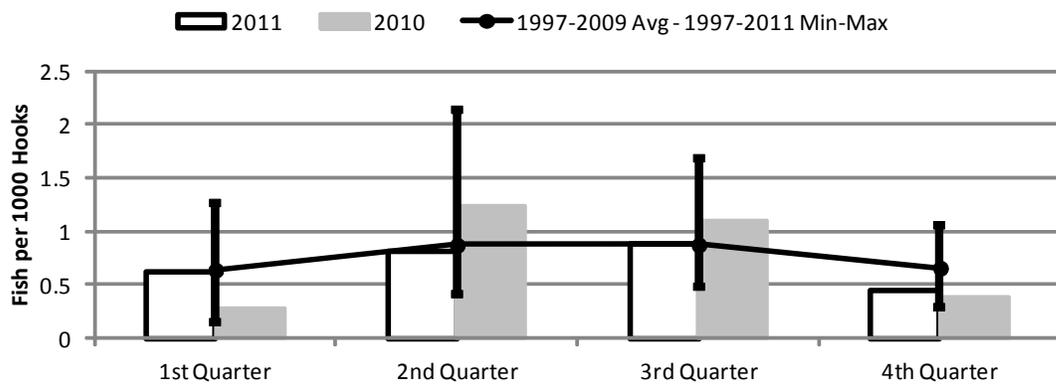
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	915	1,475	1,112	1,322
2010	887	1,449	1,682	1,141
1997-2011 Max	2,260	3,562	3,686	2,697
1997-2009 Avg	948	1,474	1,587	1,378
1997-2011 Min	5	16	26	49

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



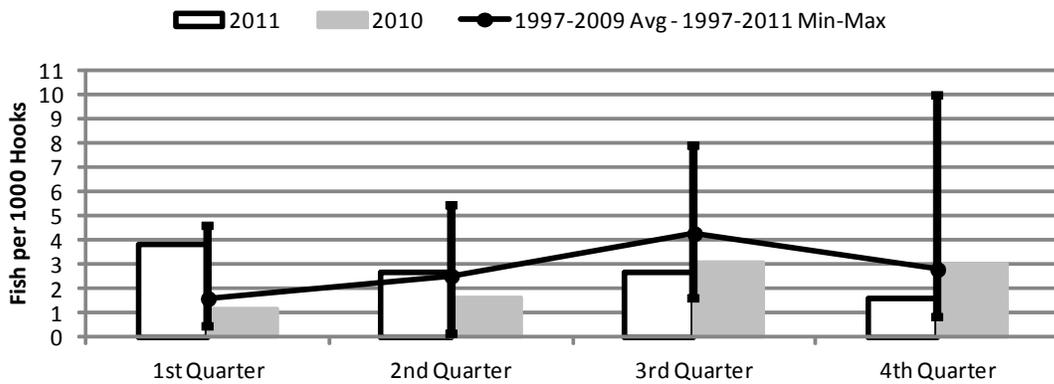
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	7.02	12.21	12.14	14.94
2010	8.61	21.85	20.60	15.34
1997-2011 Max	27.01	36.18	39.13	35.75
1997-2009 Avg	14.62	21.40	22.82	20.73
1997-2011 Min	6.58	12.21	12.14	10.54

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



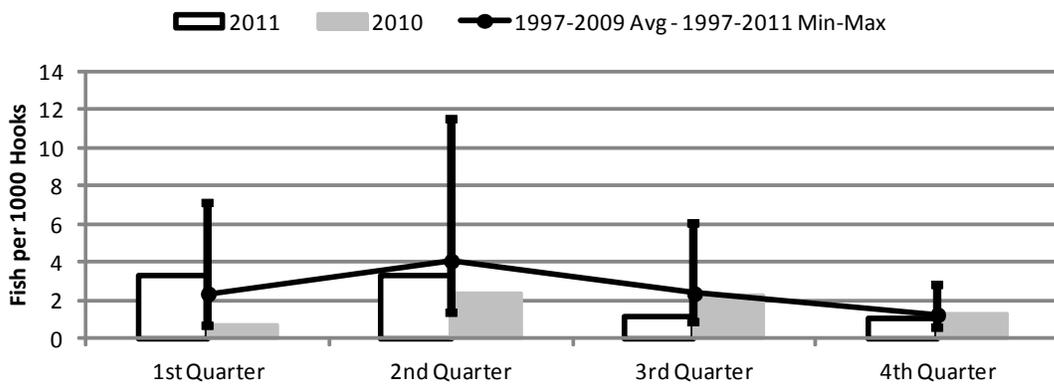
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.62	0.82	0.89	0.45
2010	0.29	1.24	1.10	0.39
1997-2011 Max	1.27	2.15	1.68	1.05
1997-2009 Avg	0.64	0.87	0.88	0.66
1997-2011 Min	0.15	0.41	0.48	0.29

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



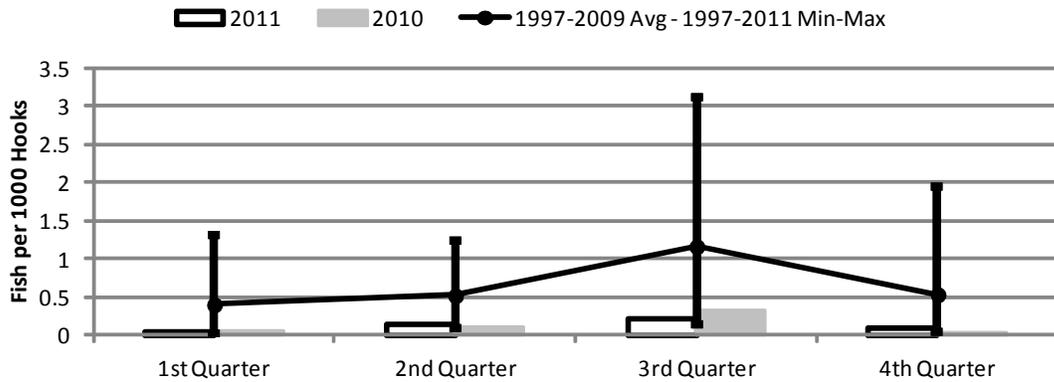
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	3.80	2.66	2.63	1.60
2010	1.15	1.59	3.11	2.99
1997-2011 Max	4.56	5.39	7.84	9.98
1997-2009 Avg	1.60	2.53	4.27	2.80
1997-2011 Min	0.44	0.12	1.56	0.79

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



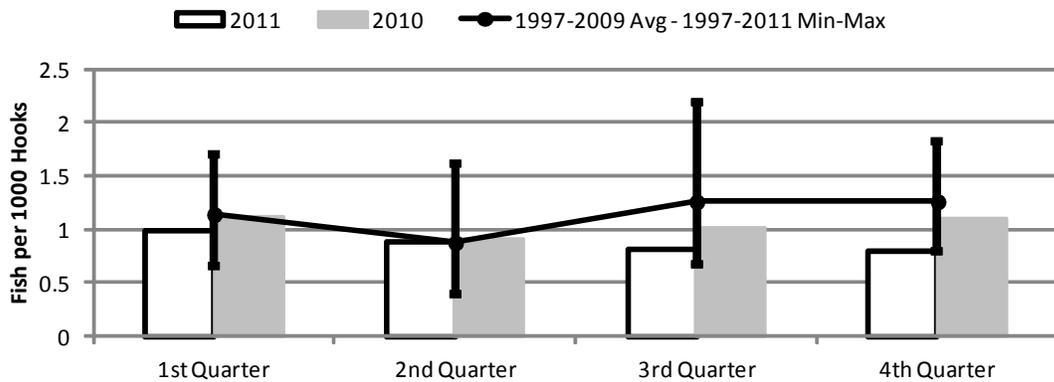
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	3.33	3.27	1.17	1.06
2010	0.71	2.37	2.24	1.31
1997-2009 Avg	2.36	4.07	2.36	1.25
1997-2011 Max	7.11	11.51	6.04	2.76
1997-2011 Min	0.66	1.34	0.83	0.55

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



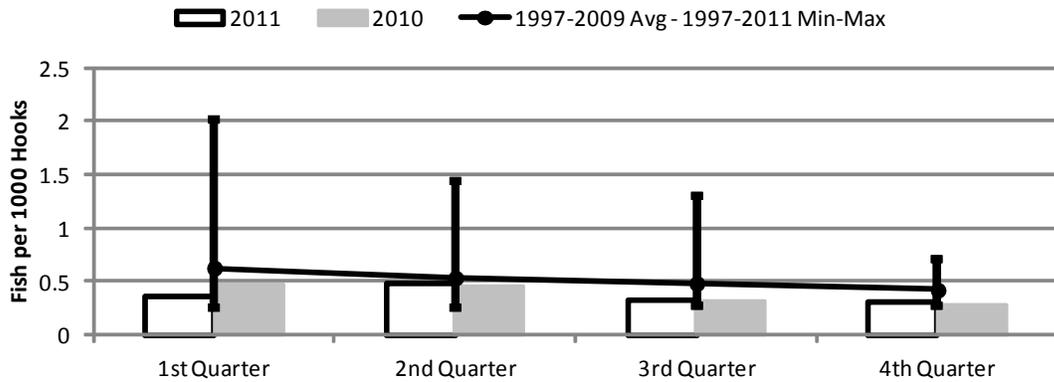
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.04	0.14	0.21	0.08
2010	0.06	0.10	0.33	0.04
1997-2011 Max	1.30	1.25	3.13	1.93
1997-2009 Avg	0.40	0.52	1.16	0.53
1997-2011 Min	0.02	0.10	0.14	0.04

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



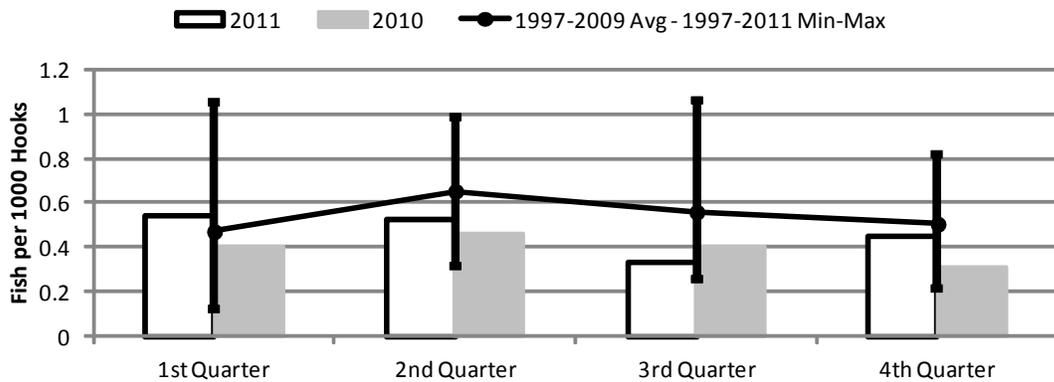
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.99	0.88	0.81	0.79
2010	1.12	0.90	1.02	1.11
1997-2011 Max	1.71	1.62	2.20	1.83
1997-2009 Avg	1.14	0.88	1.26	1.26
1997-2011 Min	0.66	0.39	0.67	0.79

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.36	0.49	0.32	0.32
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	0.54	0.52	0.34	0.45
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