

# **PIFSC Report on the Logbook Program for the American Samoa Longline Fishery July – September 2011<sup>1</sup>**

Fisheries Research and Monitoring Division  
Pacific Islands Fisheries Science Center

The American Samoa longline fishery's preliminary summary catch and effort statistics for the third quarter of 2011, based on date of haul, are shown in Table 1. This table was derived from all logbook data submitted to the American Samoa Department of Marine and Wildlife Resources as of November 30, 2011. For this period, the estimated delinquency rate was about 3%, based on the number of sets expected to be made by vessels still at sea.

Compared to the third quarter of 2010, the number of active vessels in the third quarter of this year decreased by 4%, from 25 vessels to 24 (Fig. 1). The 24 vessels that were active during the third quarter of 2011 made 1,139 sets and deployed 3,307,545 hooks. Compared to the third quarter of 2010, the number of sets decreased by 20.8% (Fig. 2) and the number of hooks used decreased by 20.4% (Fig. 3). The average number of hooks used per set increased by 0.5%, from 2,889 last year to 2,903 this year.

The total catch for all species combined was 63,484 fish (Fig. 4), which is a decrease of 48.9% compared to the third quarter of last year (Fig. 4). Catches of all species, both tuna and non-tuna, decreased compared to the third quarter last year. Albacore dominated the catch with 40,201 fish caught in the third quarter of 2011, but the albacore catch continued its downward trend with a 53.1% decrease from the 85,638 fish caught in the third quarter of 2010 (Fig. 5). The number of bigeye tuna caught decreased by 35.5% (Fig. 6), yellowfin tuna decreased 59.4% (Fig. 8) and skipjack tuna decreased 32.6% (Fig. 7). Mahimahi numbers caught decreased by 50.1% (Fig. 9), wahoo decreased by 36.3% (Fig. 10), billfish numbers caught decreased by 18.7% (Fig. 11), and sharks decreased by 33.9% (Fig. 12).

The overall catch per unit of effort (CPUE, catch per 1000 hooks), decreased by 35.8% compared to the third quarter of last year, from 29.8 fish per 1000 hooks to 19.2 fish per 1000 hooks. The CPUE for all species decreased, except for billfish, which increased by 2.2%. The CPUE of albacore decreased by 41% (Fig. 13), establishing a new recorded minimum for the 3<sup>rd</sup> quarter. Bigeye tuna CPUE decreased by 18.9% (Fig. 14), yellowfin tuna CPUE decreased by 48.9% (Fig. 16), and skipjack tuna CPUE decreased by 15.3% (Fig. 15). The CPUE of mahimahi decreased by 37.3% (Fig. 17), the CPUE of wahoo decreased by 19.9% (Fig. 18), and shark CPUE decreased by 16.9% (Fig. 20). Generally speaking, the American Samoa longline fishery is experiencing very challenging conditions with primary target species catch rates of albacore tuna about half of the long term average and catch rates of most other marketable species also in decline.

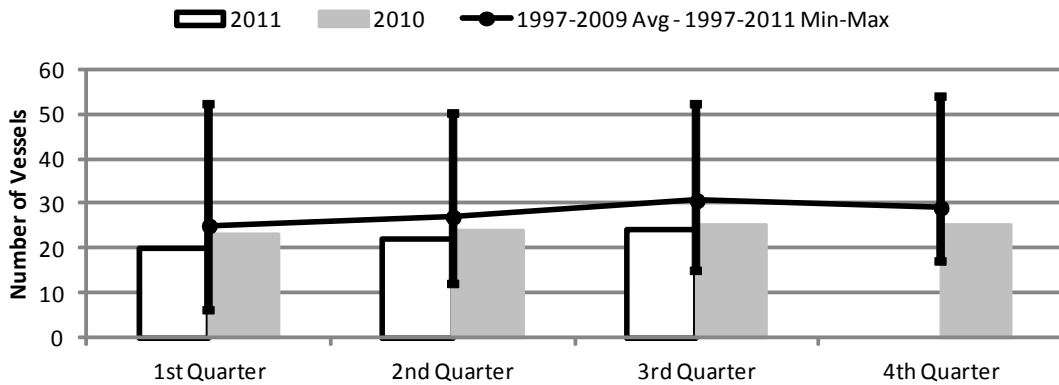
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<sup>1</sup> PIFSC Data Report DR-12-001  
Issued 13 January 2012

**Table 1. Summary of fish catch and nominal fishing effort by American Samoa Longline vessels during the third quarter of 2011 based on longline logbooks processed before November, 30, 2011.**

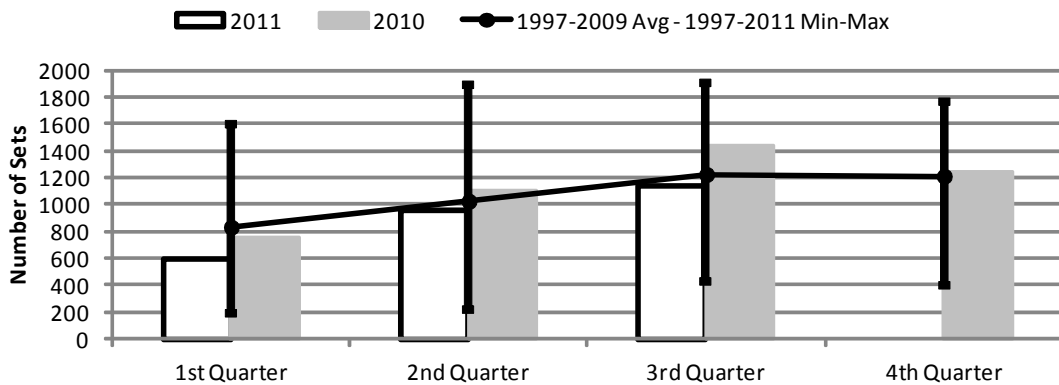
<b>TRIP INFORMATION</b>				
Number of Vessels:	24			
Number of Trips:	85			
Number of Sets:	1,139			
1000's of Hooks Set:	3,307			
Number of Light Sticks Used:	1,295			
<b>CATCH INFORMATION</b>				
<b>Species</b>	<b>Number Caught</b>	<b>Number Kept</b>	<b>Number Released</b>	<b>Number Caught per 1000 Hooks</b>
<b>BILLFISH</b>				
Black marlin	4	3	1	0.00
Blue marlin	347	143	204	0.10
Striped marlin	92	37	55	0.03
Sailfish	173	36	137	0.05
Spearfish	345	79	266	0.10
Swordfish	97	83	14	0.03
<b>TOTAL BILLFISH</b>	<b>1,058</b>	<b>381</b>	<b>677</b>	<b>0.32</b>
<b>SHARKS</b>				
Blue shark	665	26	639	0.20
Shortfin mako shark	127	2	125	0.04
Thresher shark	40	1	39	0.01
White tip oceanic shark	145	14	131	0.04
Sharks (unknown)	135	7	128	0.04
<b>TOTAL SHARKS</b>	<b>1,112</b>	<b>50</b>	<b>1,062</b>	<b>0.34</b>
<b>TUNA</b>				
Albacore tuna	40,201	39,934	267	12.15
Bigeye tuna	2,945	2,741	204	0.89
Bluefin tuna	2	0	2	0.00
Skipjack tuna	8,707	6,890	1,817	2.63
Yellowfin tuna	3,775	3,576	199	1.14
<b>TOTAL TUNA</b>	<b>55,630</b>	<b>53,141</b>	<b>2,489</b>	<b>16.82</b>
<b>OTHER PELAGICS</b>				
Mahimahi	682	477	205	0.21
Moonfish	105	39	66	0.03
Oilfish	2,022	11	2,011	0.61
Pomfret	165	24	141	0.05
Wahoo	2,688	2,072	616	0.81
<b>TOTAL OTHER PELAGICS</b>	<b>5,662</b>	<b>2,623</b>	<b>3,039</b>	<b>1.71</b>
<b>NON-PMUS</b>				
Pelagic fishes (unknown)	26	5	21	0.01
<b>TOTAL NON-PMUS</b>	<b>26</b>	<b>5</b>	<b>21</b>	<b>0.01</b>
<b>TOTAL ALL SPECIES</b>	<b>63,488</b>	<b>56,200</b>	<b>7,288</b>	<b>19.19</b>

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



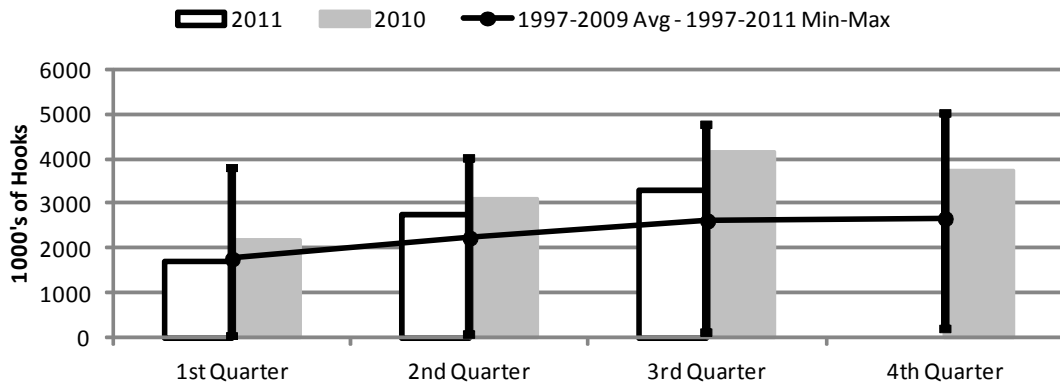
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	20	22	24	0
2010	23	24	25	25
1997-2011 Max	52	50	52	54
1997-2009 Avg	25	27	30	29
1997-2011 Min	6	12	15	17

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



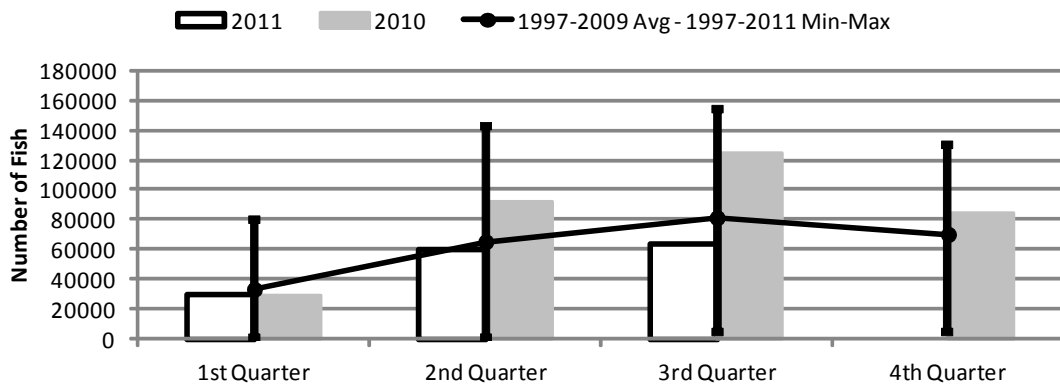
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	596	959	1,139	0
2010	756	1,098	1,439	1,241
1997-2009 Avg	835	1,028	1,227	1,214
1997-2011 Max	1,602	1,886	1,904	1,759
1997-2011 Min	192	223	424	401

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



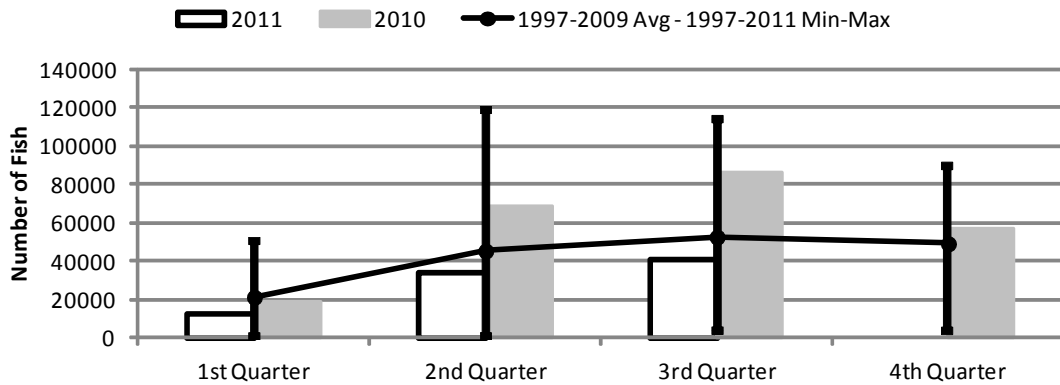
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1,684	2,753	3,307	0
2010	2,187	3,112	4,157	3,717
1997-2011 Max	3,805	3,992	4,769	4,985
1997-2009 Avg	1,765	2,233	2,616	2,668
1997-2011 Min	41	50	101	175

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



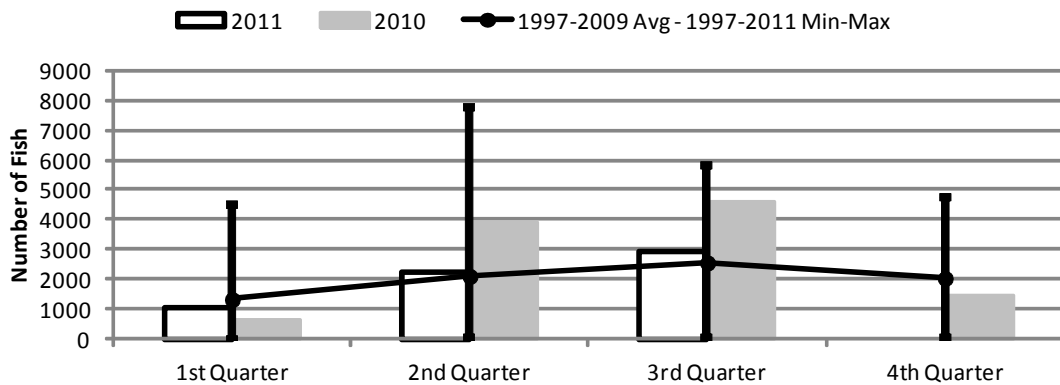
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	29,435	59,697	63,488	0
2010	29,416	92,191	124,233	84,087
1997-2011 Max	79,588	142,603	153,301	130,238
1997-2009 Avg	33,566	65,428	81,477	70,316
1997-2011 Min	1,315	1,416	4,127	5,201

**Figure 5. American Samoa Longline Albacore Catch by Quarter for**



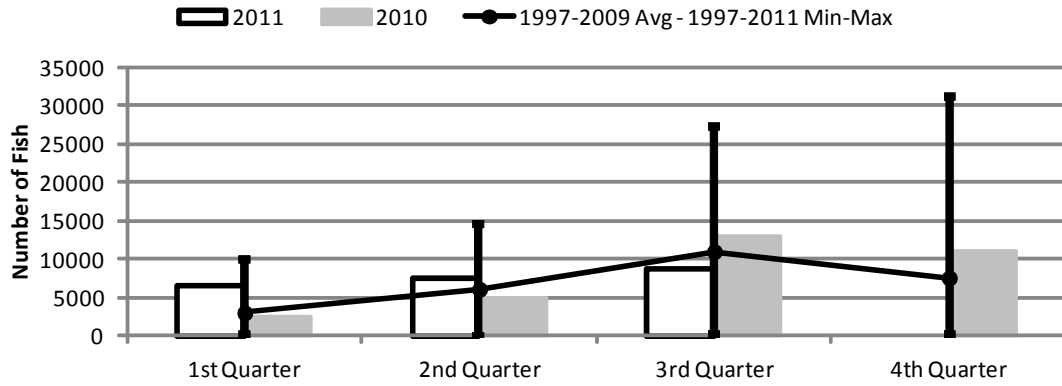
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	11,873	33,861	40,201	0
2010	18,828	68,028	85,638	57,017
1997-2011 Max	50,382	118,994	113,831	89,389
1997-2009 Avg	21,311	45,403	52,663	49,190
1997-2011 Min	940	851	3,182	3,465

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



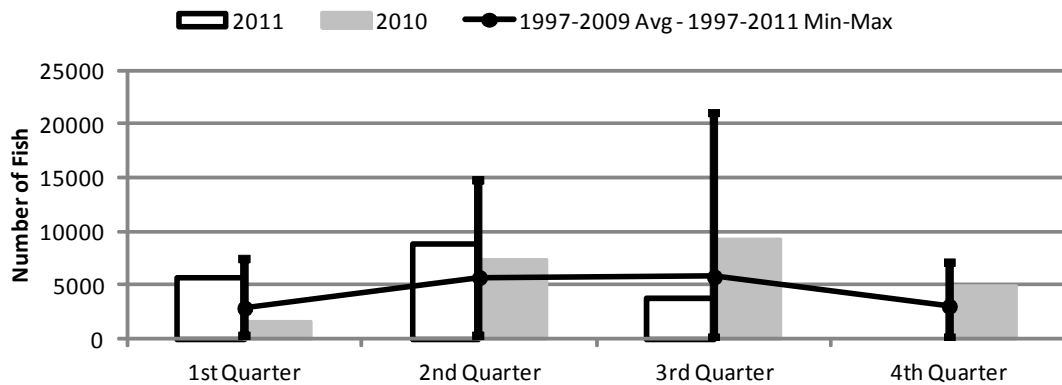
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1,041	2,254	2,945	0
2010	633	3,875	4,566	1,436
1997-2011 Max	4,470	7,785	5,824	4,728
1997-2009 Avg	1,333	2,110	2,559	2,041
1997-2011 Min	6	26	55	55

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



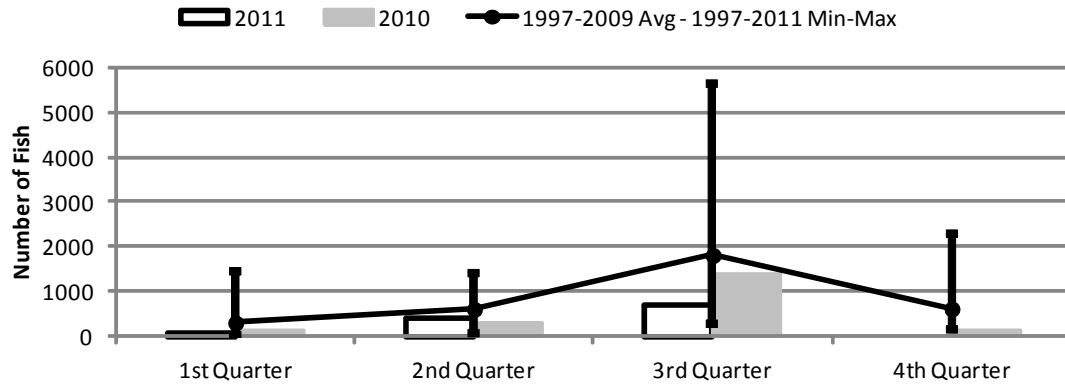
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	6,443	7,425	8,707	0
2010	2,506	4,936	12,919	11,123
1997-2011 Max	9,801	14,606	27,234	31,191
1997-2009 Avg	3,032	6,105	11,002	7,575
1997-2011 Min	116	6	244	178

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



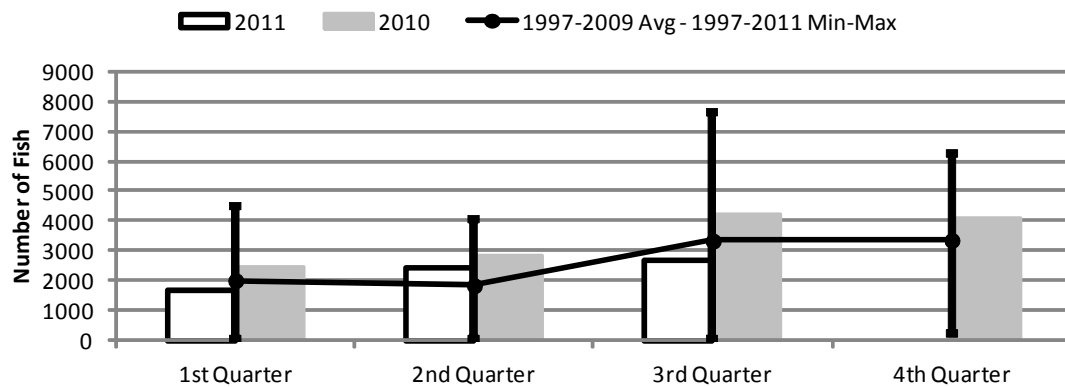
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	5,625	8,909	3,775	0
2010	1,547	7,376	9,295	4,869
1997-2011 Max	7,426	14,681	20,993	7,104
1997-2009 Avg	2,908	5,756	5,819	3,079
1997-2011 Min	213	356	84	177

**Figure 9. American Samoa Mahimahi Catch by Quarter for**



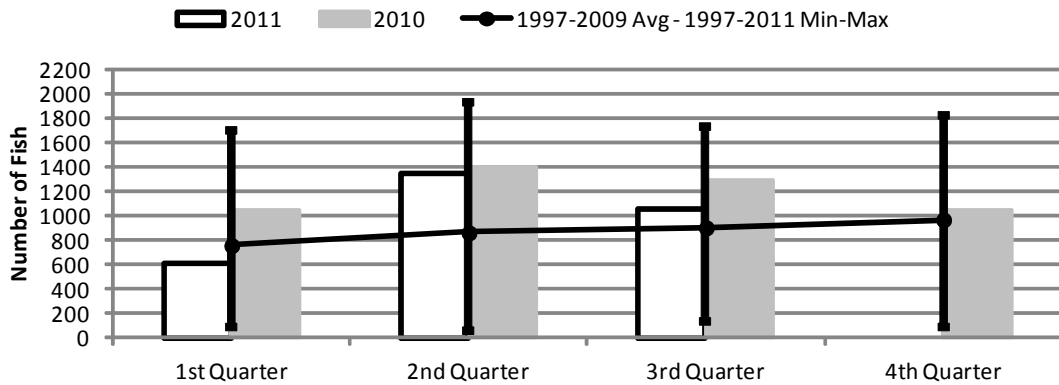
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	72	399	682	0
2010	131	311	1,367	146
1997-2011 Max	1,454	1,392	5,642	2,297
1997-2009 Avg	307	612	1,810	619
1997-2011 Min	30	59	280	146

**Figure 10. American Samoa Wahoo Catch by Quarter for**



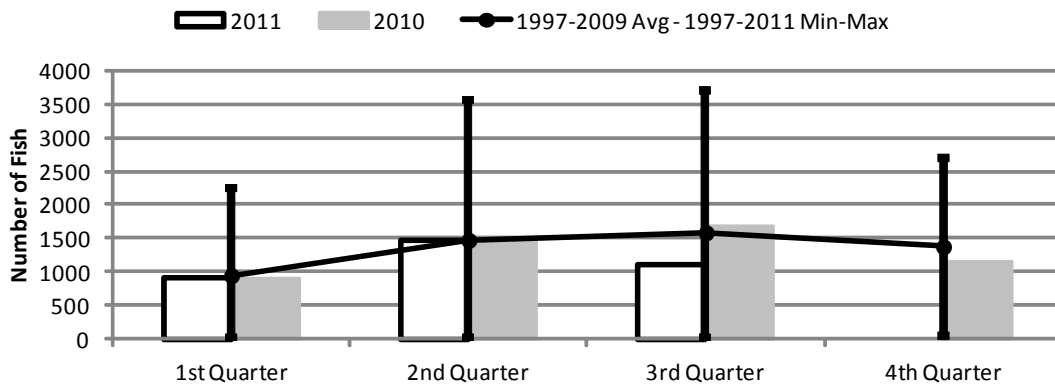
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1,676	2,443	2,688	0
2010	2,441	2,810	4,220	4,115
1997-2011 Max	4,524	4,076	7,629	6,281
1997-2009 Avg	2,011	1,844	3,336	3,358
1997-2011 Min	27	20	68	210

**Figure 11. American Samoa Billfish Catch by Quarter for**



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	605	1,348	1,058	0
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

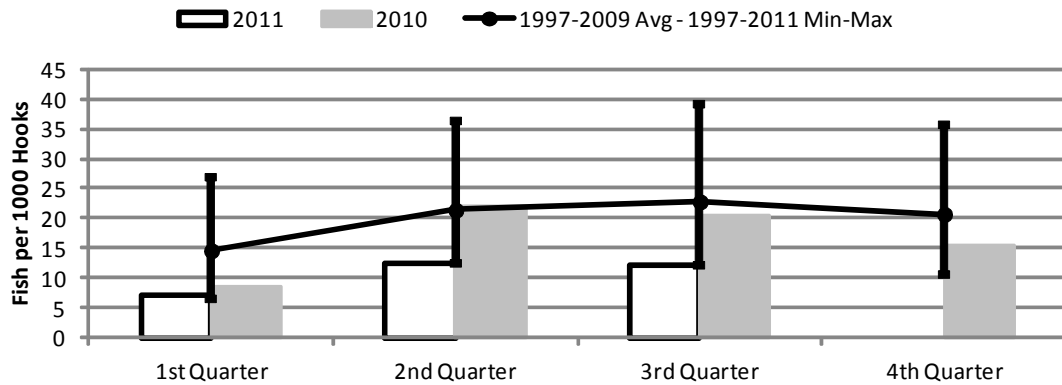
**Figure 12. American Samoa Shark Catch by Quarter for**



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	915	1,458	1,112	0
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	1,379
1997-2011 Min	5	16	26	49

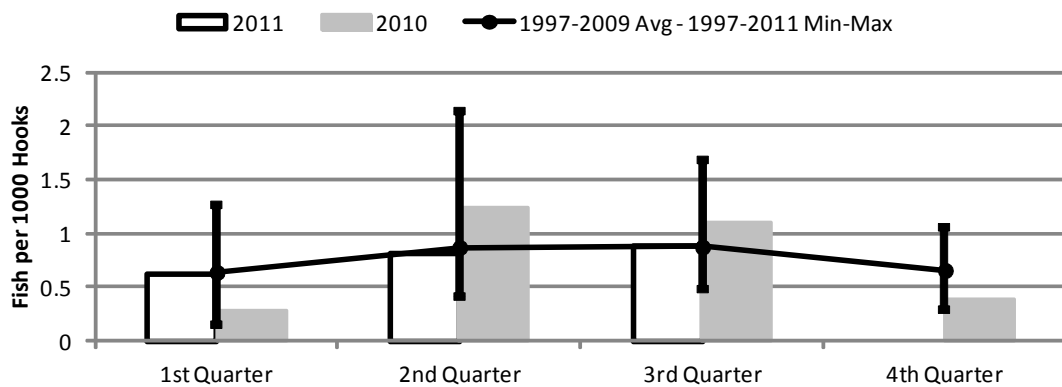


Figure 13. American Samoa Longline Albacore Catch per 1000 Hooks by Quarter for



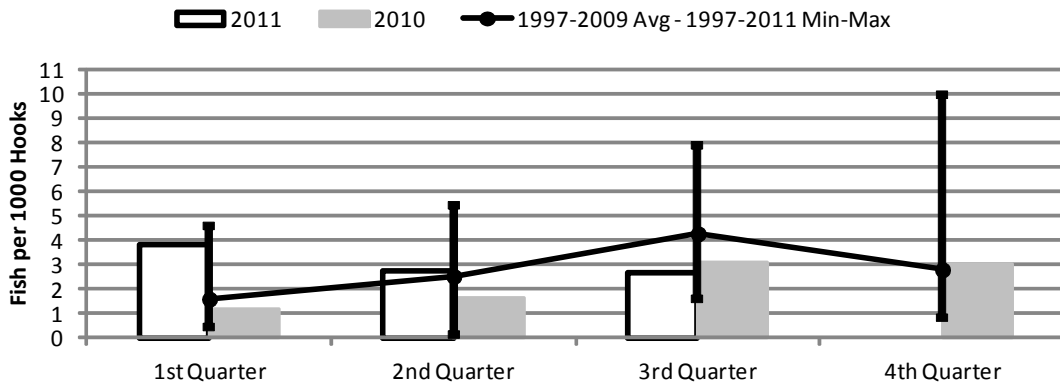
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	7.05	12.30	12.15	0.00
2010	8.61	21.85	20.60	15.34
1997-2011 Max	27.01	36.18	39.13	35.75
1997-2009 Avg	14.62	21.40	22.82	20.73
1997-2011 Min	6.58	12.30	12.15	10.54

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



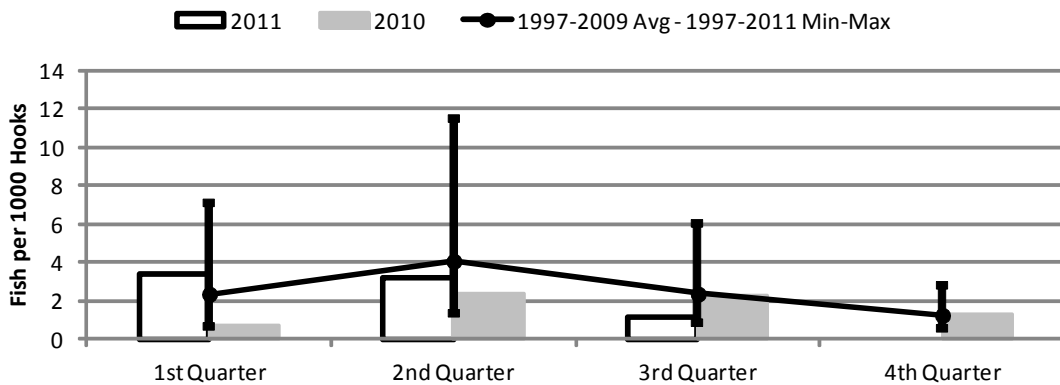
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.62	0.82	0.89	0.00
2010	0.29	1.24	1.10	0.39
1997-2011 Max	1.27	2.15	1.68	1.05
1997-2009 Avg	0.64	0.87	0.88	0.66
1997-2011 Min	0.15	0.41	0.48	0.29

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



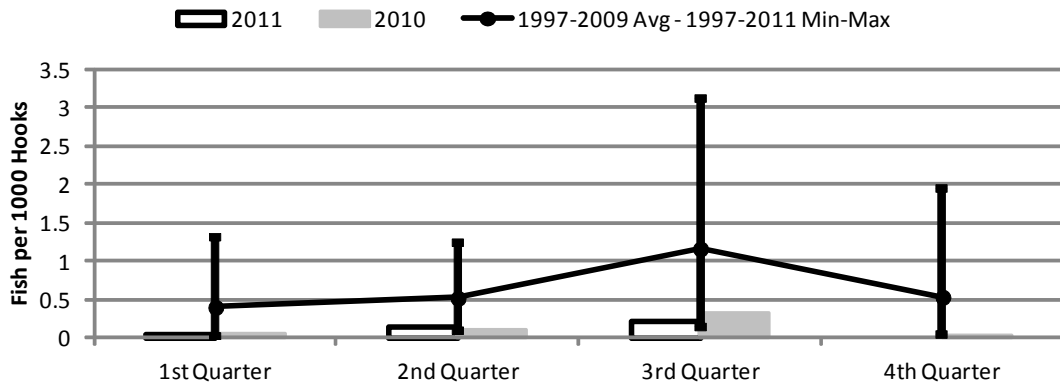
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	3.83	2.70	2.63	0.00
2010	1.15	1.59	3.11	2.99
1997-2011 Max	4.56	5.39	7.84	9.98
1997-2009 Avg	1.60	2.53	4.27	2.80
1997-2011 Min	0.44	0.12	1.56	0.79

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



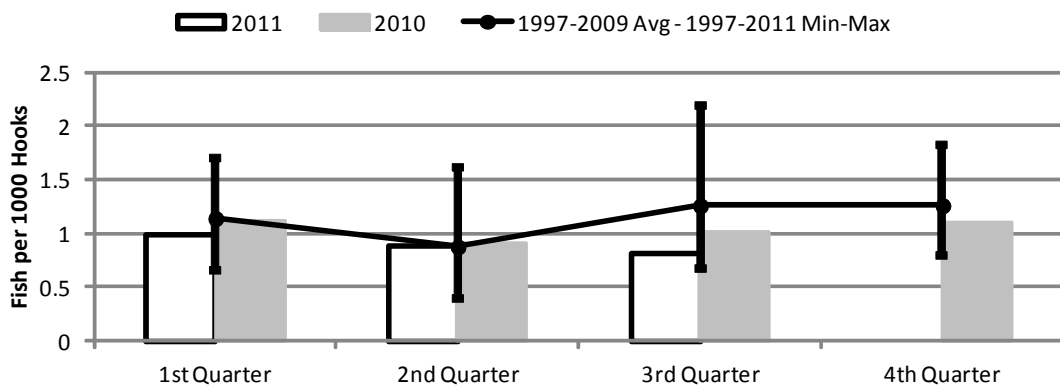
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	3.34	3.24	1.14	0.00
2010	0.71	2.37	2.24	1.31
1997-2011 Max	7.11	11.51	6.04	2.76
1997-2009 Avg	2.36	4.07	2.36	1.25
1997-2011 Min	0.66	1.34	0.83	0.55

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



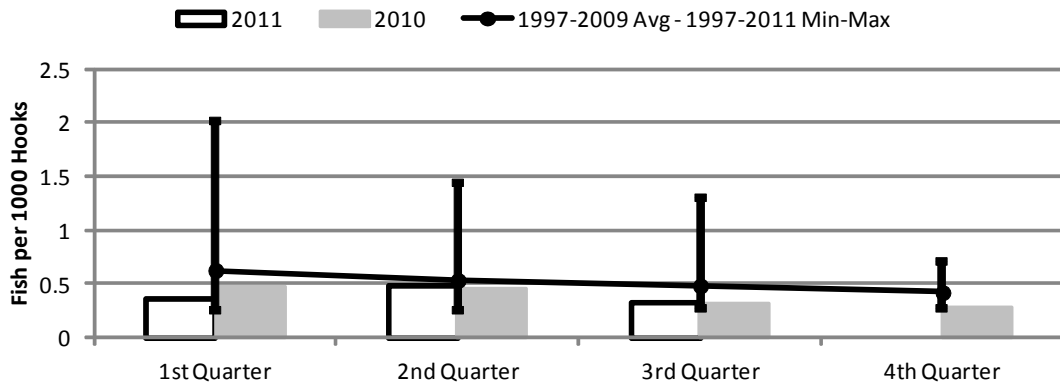
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.04	0.14	0.21	0.00
2010	0.06	0.10	0.33	0.04
1997-2011 Max	1.30	1.25	3.13	1.93
1997-2009 Avg	0.40	0.52	1.16	0.53
1997-2011 Min	0.02	0.10	0.14	0.04

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



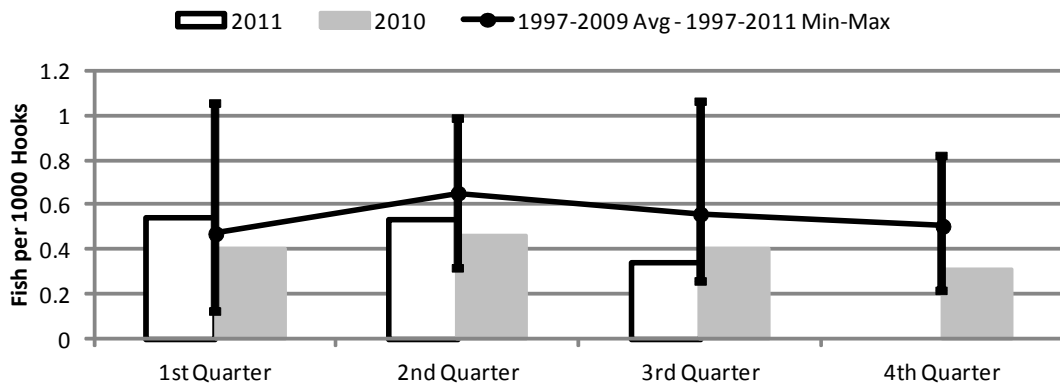
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	1.00	0.89	0.81	0.00
2010	1.12	0.90	1.02	1.11
1997-2009 Avg	1.14	0.88	1.26	1.26
1997-2011 Max	1.71	1.62	2.20	1.83
1997-2011 Min	0.66	0.39	0.67	0.80

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2011	0.36	0.49	0.32	0.00
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	0.53	0.34	0.00
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