

# PIFSC Report on the Logbook Program for the American Samoa Longline Fishery January – March 2012<sup>1</sup>

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Pacific Islands Fisheries Science Center

The American Samoa longline fishery summary catch and effort statistics for the first quarter of 2012, based on date of haul, are shown in Table 1. This table was derived from all logbook data processed by the American Samoa Department of Marine and Wildlife Resources as of May 7, 2012. Table 1 reflects an estimated 97% of the number of sets made by vessels during this period.

Compared to the first quarter of 2011, the number of active vessels decreased by 10%, from 20 vessels in the first quarter of 2011 to 18 in the first quarter of 2012 (Fig. 1). The 18 vessels that were active during the first quarter of 2012 made 670 sets and deployed 1,827,823 hooks. In spite of the decline in the number of vessels compared to the first quarter of 2011, the number of sets increased by 11.5% (Fig. 2) and the number of hooks used increased by 7.8% (Fig. 3). The average number of hooks used per set decreased by 3.3%, from 2,821 last year to 2,728 this year.

The total catch for all species combined was 31,308 fish (Fig. 4) which is an increase of 6.1% compared to the first quarter of last year (Fig. 4). Catches of skipjack tuna, yellowfin tuna, bigeye tuna, and wahoo decreased compared to the first quarter last year, while catches of the target species, albacore, increased as did catches of all other species. Although albacore continued to dominate the catch with 20,644 fish caught in the first quarter of 2012, its 73.5% increase in catch over the first quarter of 2011 still left the catches of albacore below the long term first-quarter average (Fig. 5). All other tuna catches decreased sharply—the number of bigeye tuna caught decreased by 38.5% (Fig. 6), yellowfin tuna decreased 62.2% (Fig. 8), skipjack tuna decreased 60% (Fig. 7), and wahoo also decreased by 26.5% (Fig. 10). Catches of some less-important species increased compared to the first quarter of 2011: mahimahi increased by 2.8% (Fig. 9), billfish increased by 20% (Fig. 11), and shark increased by 43% (Fig. 12).

The overall catch per unit of effort (CPUE, catch per 1000 hooks) decreased by 1.5% compared to the first quarter of last year, from 17.13 fish per 1000 hooks to 17.4 fish per 1000 hooks (Fig. 13). The CPUE for albacore, billfish, and shark increased, while the CPUE for all other tuna species and wahoo decreased, and CPUE for mahimahi remained the same as in the first quarter of last year. The CPUE for the main target species, albacore, increased by 61% from its record-setting first-quarter low last year (Fig. 14). However, this increase still left the albacore CPUE below the long-term first-quarter average CPUE. The CPUE for other tunas and wahoo all decreased, with bigeye tuna CPUE decreasing by 43.6% (Fig. 15), yellowfin tuna CPUE decreasing by 65% (Fig. 17), skipjack tuna CPUE decreasing by 59.2% (Fig. 16), and wahoo CPUE decreasing by 31.3% (Fig. 19). The CPUE of mahimahi remained the same at .04 fish per 1000 hooks (Fig. 18), while the CPUE of billfish increased by 11.1% (Fig. 20), and shark CPUE increased by 33.3% (Fig. 21).

The American Samoa longline fishery continues to experience challenging conditions with catch rates of most tuna species in decline compared to the long term averages and catch rates of many other marketable species also in decline.

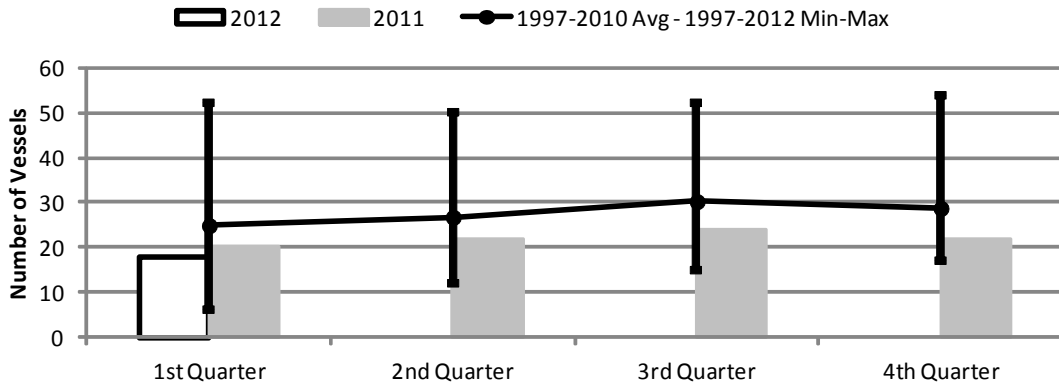
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<sup>1</sup> PIFSC Data Report DR-12-009  
Issued 1 June 2012

**Table 1. Summary of fish catch and nominal fishing effort by American Samoa Longline vessels during the first quarter of 2012 based on longline logbooks processed as of May 7, 2012.**

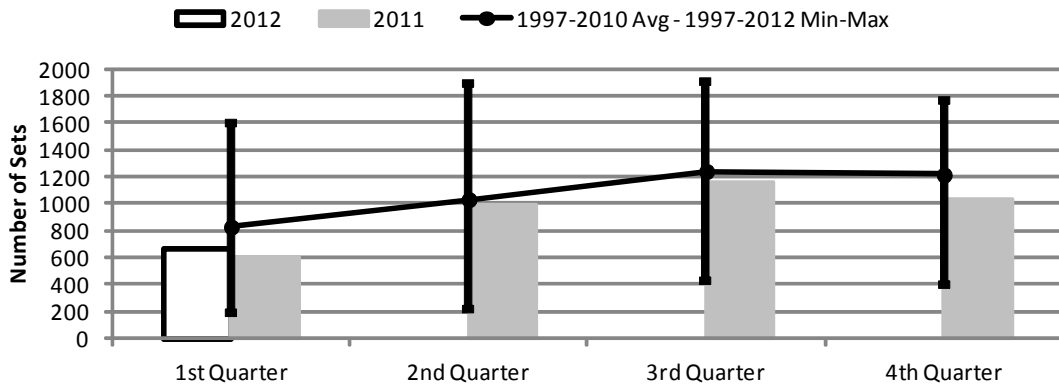
<b>TRIP INFORMATION</b>				
Number of Vessels:	18			
Number of Trips:	73			
Number of Sets:	670			
1000's of Hooks Set:	1,827			
Number of Light Sticks Used:	309			
<b>CATCH INFORMATION</b>				
<b>Species</b>	<b>Number Caught</b>	<b>Number Kept</b>	<b>Number Released</b>	<b>Number Caught per 1000 Hooks</b>
<b>BILLFISH</b>				
Black marlin	32	30	2	0.02
Blue marlin	402	150	252	0.22
Striped marlin	106	88	18	0.06
Sailfish	27	7	20	0.01
Spearfish	125	2	123	0.07
Swordfish	41	33	8	0.02
<b>TOTAL BILLFISH</b>	<b>733</b>	<b>310</b>	<b>423</b>	<b>0.40</b>
<b>SHARKS</b>				
Blue shark	1,014	17	997	0.55
Shortfin mako shark	37	1	36	0.02
Thresher shark	62	0	62	0.03
White tip oceanic shark	144	1	143	0.08
Sharks (unknown)	52	5	47	0.03
<b>TOTAL SHARKS</b>	<b>1,309</b>	<b>24</b>	<b>1,285</b>	<b>0.72</b>
<b>TUNA</b>				
Albacore tuna	20,644	20,539	105	11.29
Bigeye tuna	641	615	26	0.35
Bluefin tuna	42	42	0	0.02
Skipjack tuna	2,842	2,654	188	1.55
Yellowfin tuna	2,131	2,118	13	1.17
<b>TOTAL TUNA</b>	<b>26,300</b>	<b>25,968</b>	<b>332</b>	<b>14.39</b>
<b>OTHER PELAGICS</b>				
Mahimahi	74	69	5	0.04
Moonfish	110	14	96	0.06
Oilfish	1,272	5	1,267	0.70
Pomfret	153	24	129	0.08
Wahoo	1,236	1,115	121	0.68
<b>TOTAL OTHER PELAGICS</b>	<b>2,845</b>	<b>1,227</b>	<b>1,618</b>	<b>1.56</b>
<b>NON-PMUS</b>				
Pelagic fishes (unknown)	121	0	121	0.07
<b>TOTAL NON-PMUS</b>	<b>121</b>	<b>0</b>	<b>121</b>	<b>0.07</b>
<b>TOTAL ALL SPECIES</b>	<b>31,308</b>	<b>27,529</b>	<b>3,779</b>	<b>17.13</b>

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



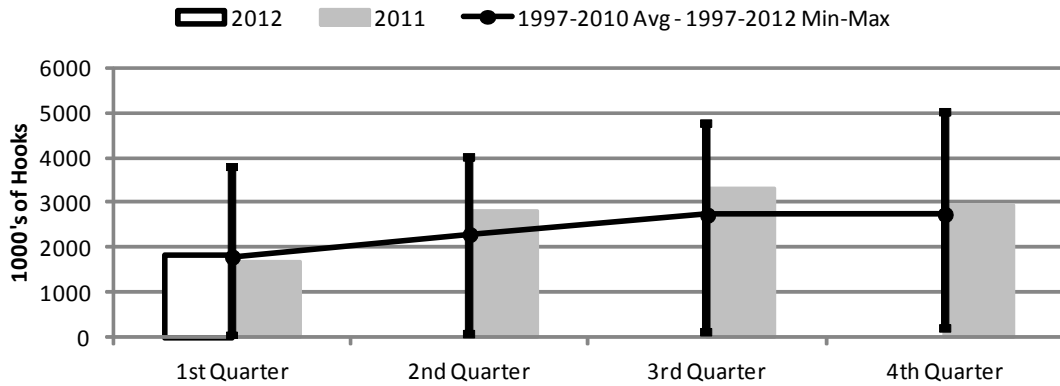
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	18	0	0	0
2011	20	22	24	22
1997-2012 Max	52	50	52	54
1997-2010 Avg	24	26	30	28
1997-2012 Min	6	12	15	17

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



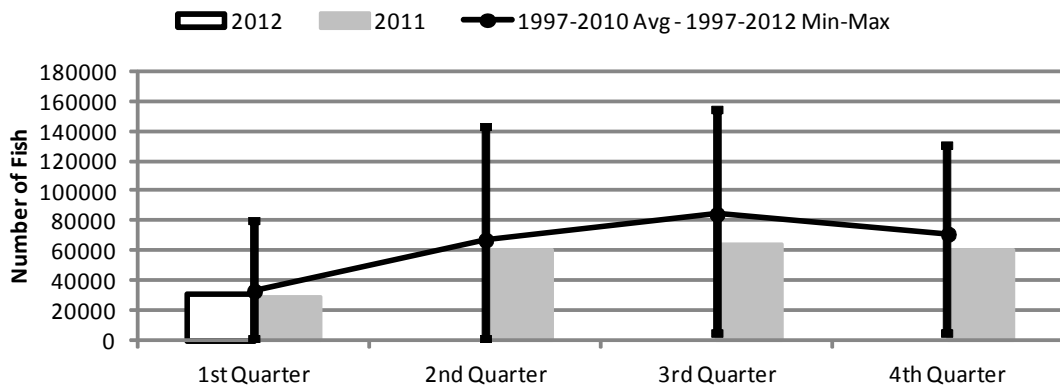
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	670	0	0	0
2011	601	986	1,155	1,034
1997-2012 Max	1,602	1,886	1,904	1,759
1997-2010 Avg	830	1,033	1,242	1,216
1997-2012 Min	192	223	424	401

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



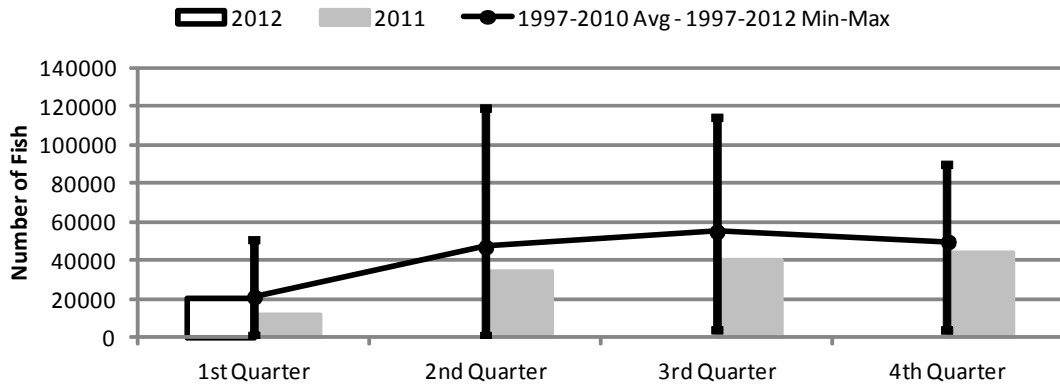
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1,827	0	0	0
2011	1,695	2,811	3,317	2,943
1997-2012 Max	3,805	3,992	4,769	4,985
1997-2010 Avg	1,795	2,296	2,726	2,743
1997-2012 Min	41	50	101	175

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



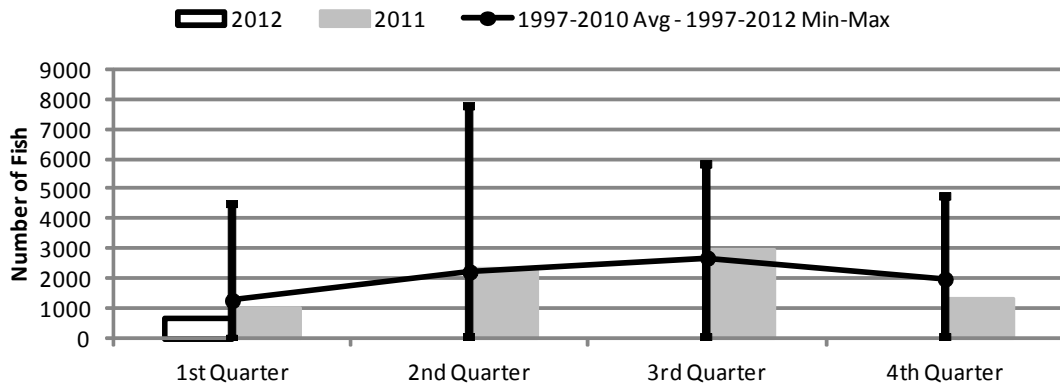
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	31,308	0	0	0
2011	29,498	60,624	63,705	60,582
1997-2012 Max	79,588	142,603	153,301	130,238
1997-2010 Avg	33,269	67,339	84,531	71,293
1997-2012 Min	1,315	1,416	4,127	5,201

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



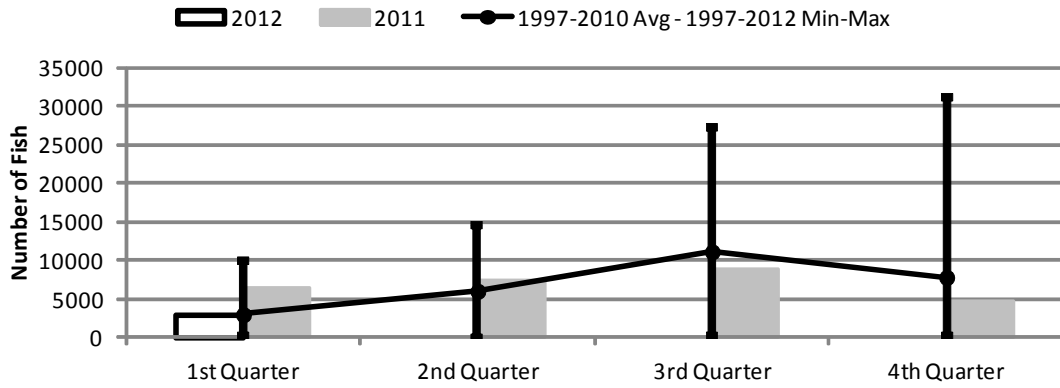
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	20,644	0	0	0
2011	11,899	34,320	40,269	43,983
1997-2012 Max	50,382	118,994	113,831	89,389
1997-2010 Avg	21,134	47,018	55,018	49,745
1997-2012 Min	940	851	3,182	3,465

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



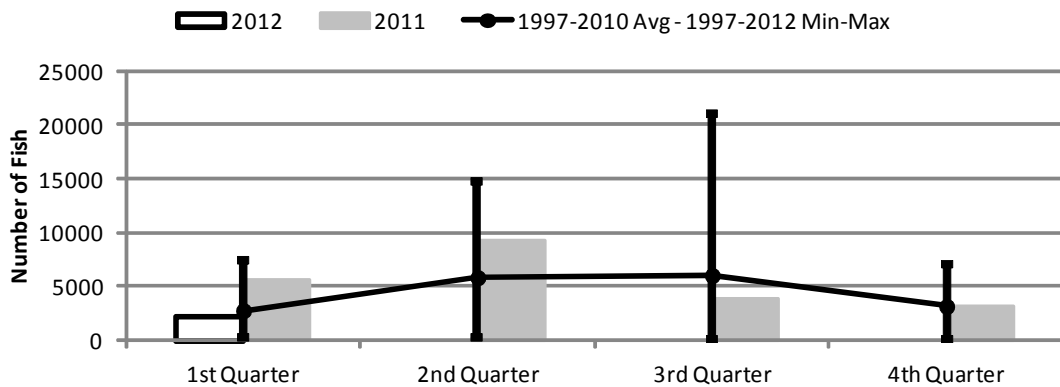
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	641	0	0	0
2011	1,043	2,303	2,948	1,320
1997-2012 Max	4,470	7,785	5,824	4,728
1997-2010 Avg	1,283	2,236	2,702	1,997
1997-2012 Min	6	26	55	55

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



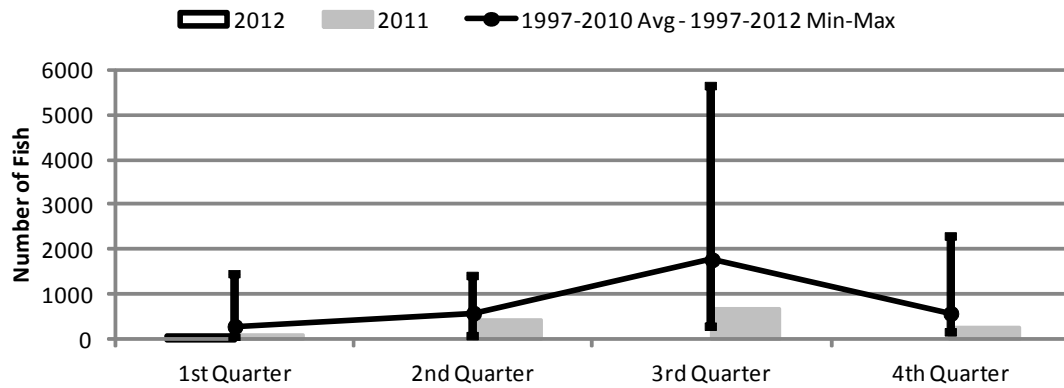
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	2,842	0	0	0
2011	6,446	7,465	8,717	4,718
1997-2012 Max	9,801	14,606	27,234	31,191
1997-2010 Avg	2,994	6,021	11,139	7,828
1997-2012 Min	116	6	244	178

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



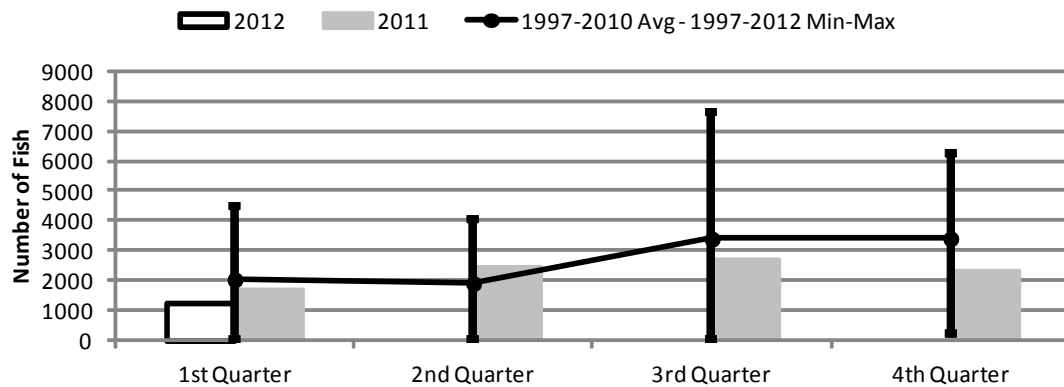
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	2,131	0	0	0
2011	5,645	9,185	3,887	3,111
1997-2012 Max	7,426	14,681	20,993	7,104
1997-2010 Avg	2,811	5,872	6,068	3,206
1997-2012 Min	213	356	84	177

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



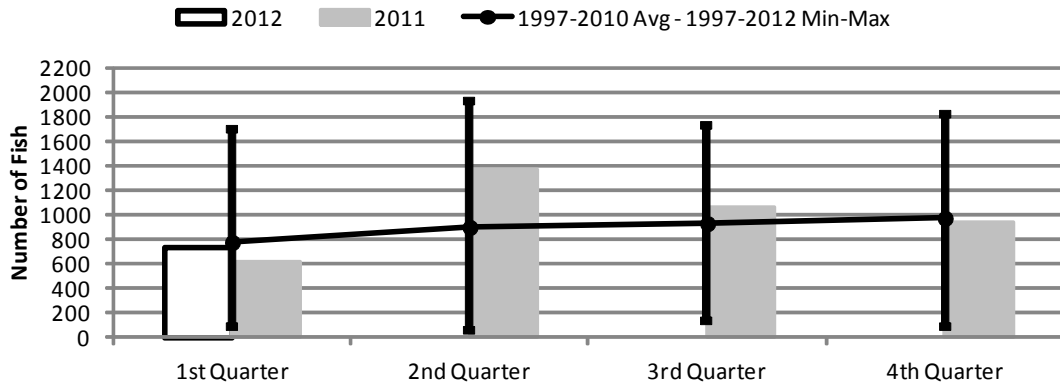
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	74	0	0	0
2011	72	405	690	240
1997-2012 Max	1,454	1,392	5,642	2,297
1997-2010 Avg	294	590	1,779	586
1997-2012 Min	30	59	280	146

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



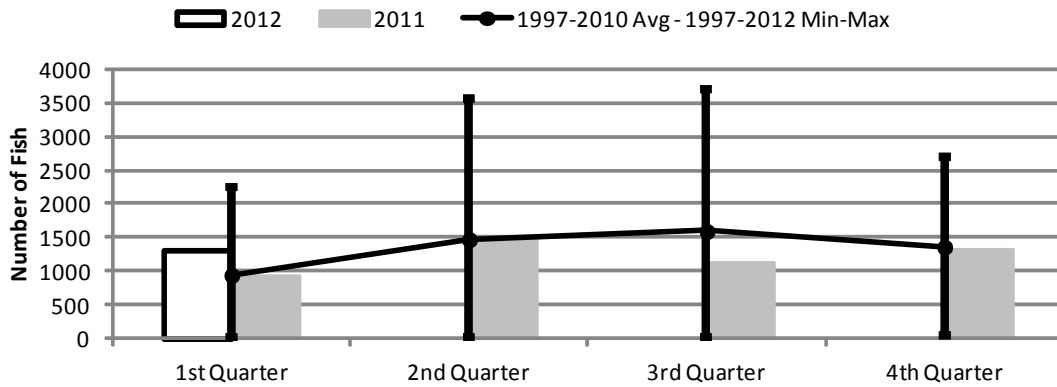
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1,236	0	0	0
2011	1,682	2,484	2,701	2,331
1997-2012 Max	4,524	4,076	7,629	6,281
1997-2010 Avg	2,042	1,913	3,399	3,412
1997-2012 Min	27	20	68	210

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	733	0	0	0
2011	611	1,367	1,061	931
1997-2012 Max	1,692	1,934	1,729	1,819
1997-2010 Avg	777	900	930	973
1997-2012 Min	83	58	132	84

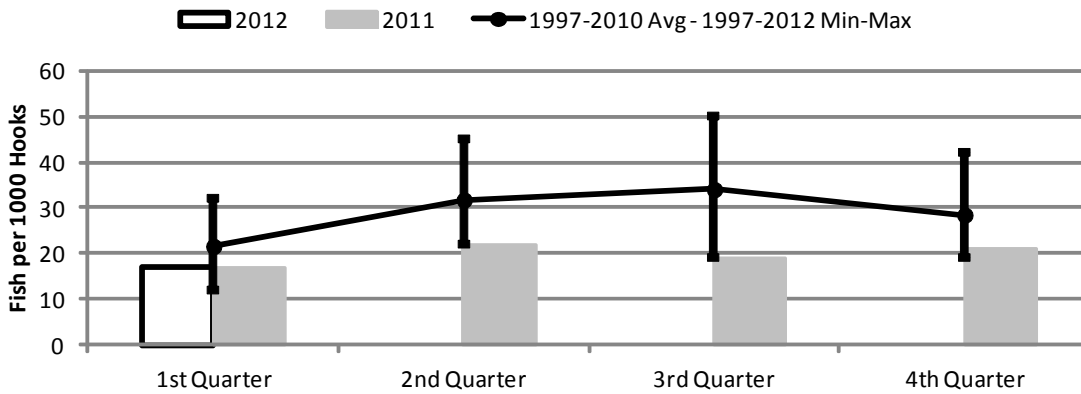
**Figure 12. American Samoa Shark Catch by Quarter for**



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1,309	0	0	0
2011	915	1,475	1,112	1,322
1997-2012 Max	2,260	3,562	3,686	2,697
1997-2010 Avg	943	1,472	1,594	1,361
1997-2012 Min	5	16	26	49

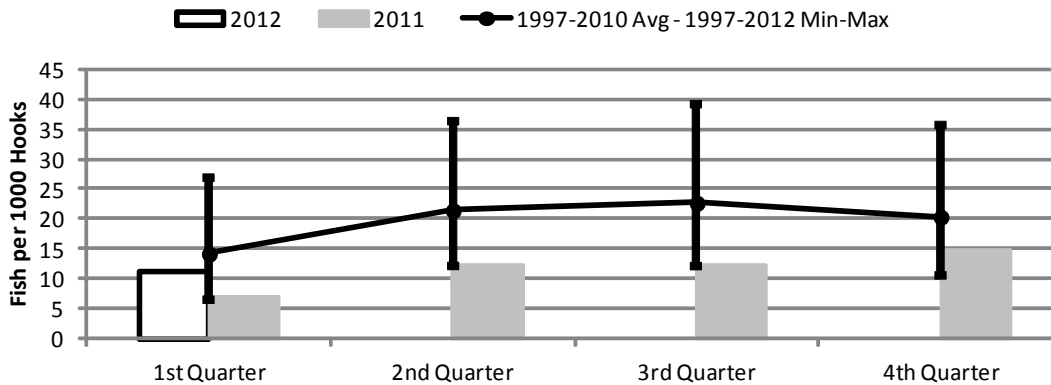


Figure 13. American Samoa Longline Total Catch per 1000 Hooks by Quarter for



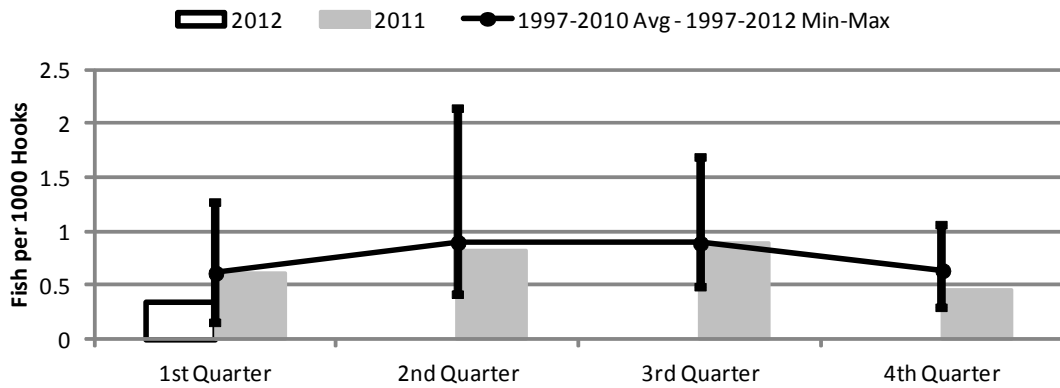
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	17	0	0	0
2011	17	22	19	21
1997-2012 Max	32	45	50	42
1997-2010 Avg	21	31	34	28
1997-2012 Min	12	22	19	19

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



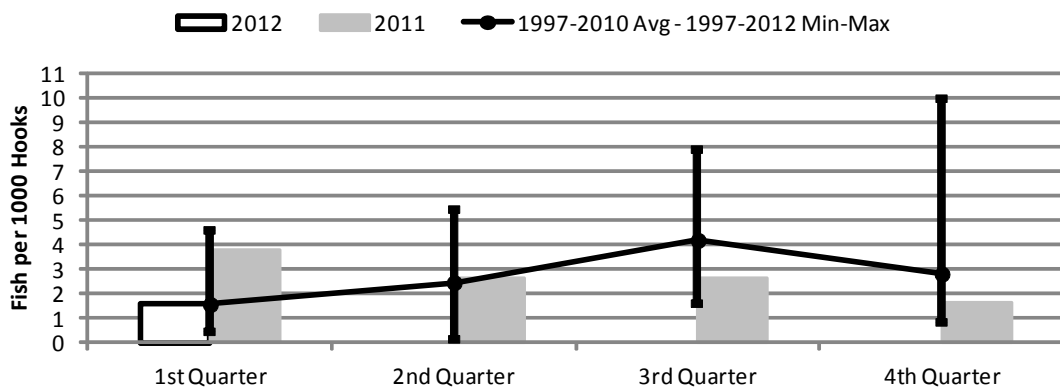
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	11.29	0.00	0.00	0.00
2011	7.02	12.21	12.14	14.94
1997-2012 Max	27.01	36.18	39.13	35.75
1997-2010 Avg	14.19	21.44	22.66	20.34
1997-2012 Min	6.58	12.21	12.14	10.54

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



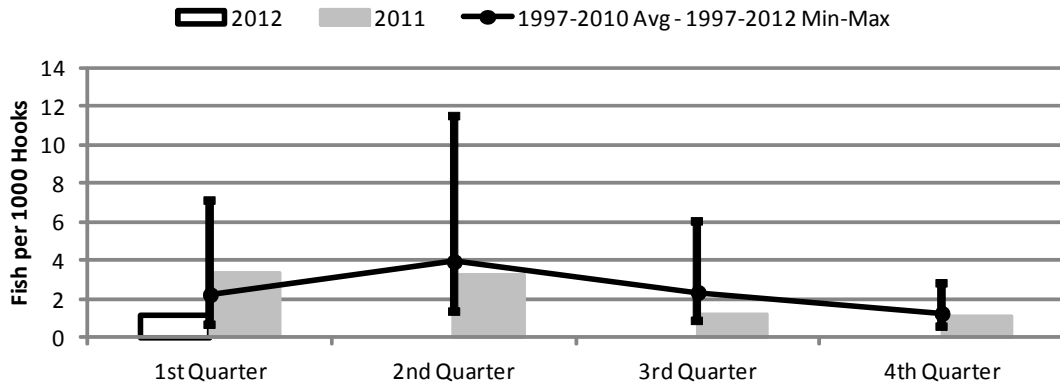
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.35	0.00	0.00	0.00
2011	0.62	0.82	0.89	0.45
1997-2012 Max	1.27	2.15	1.68	1.05
1997-2010 Avg	0.62	0.90	0.89	0.64
1997-2012 Min	0.15	0.41	0.48	0.29

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



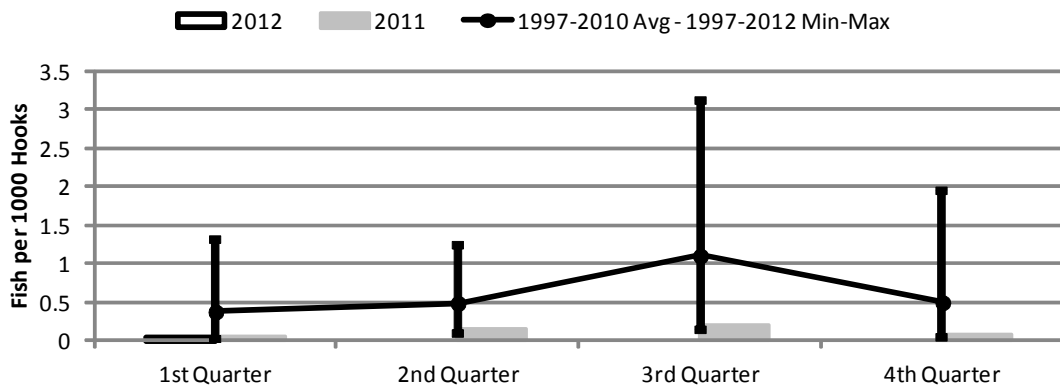
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1.55	0.00	0.00	0.00
2011	3.80	2.66	2.63	1.60
1997-2012 Max	4.56	5.39	7.84	9.98
1997-2010 Avg	1.57	2.46	4.19	2.81
1997-2012 Min	0.44	0.12	1.56	0.79

Figure 17. American Samoa Yellowfin Tuna Catch per 1000 Hooks by Quarter for



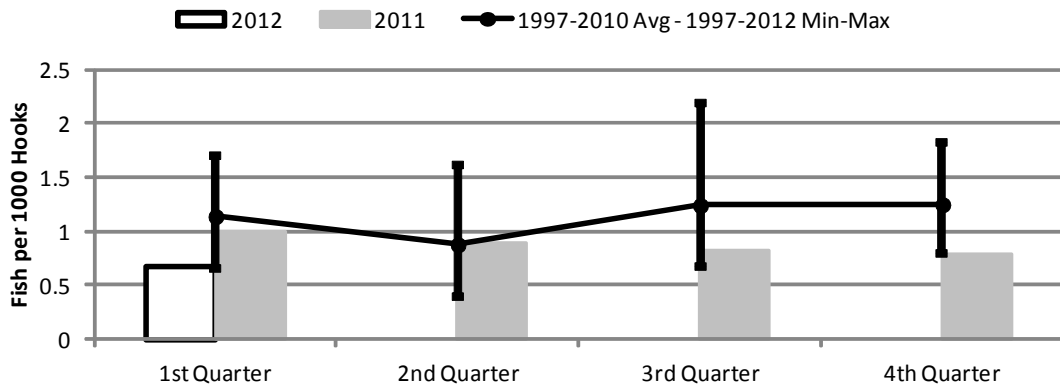
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1.17	0.00	0.00	0.00
2011	3.33	3.27	1.17	1.06
1997-2012 Max	7.11	11.51	6.04	2.76
1997-2010 Avg	2.24	3.95	2.35	1.26
1997-2012 Min	0.66	1.34	0.83	0.55

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



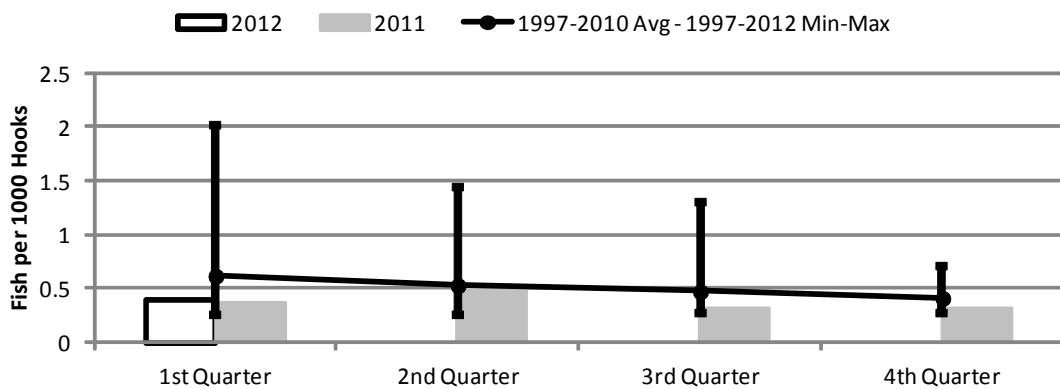
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.04	0.00	0.00	0.00
2011	0.04	0.14	0.21	0.08
1997-2012 Max	1.30	1.25	3.13	1.93
1997-2010 Avg	0.38	0.49	1.10	0.50
1997-2012 Min	0.02	0.10	0.14	0.04

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



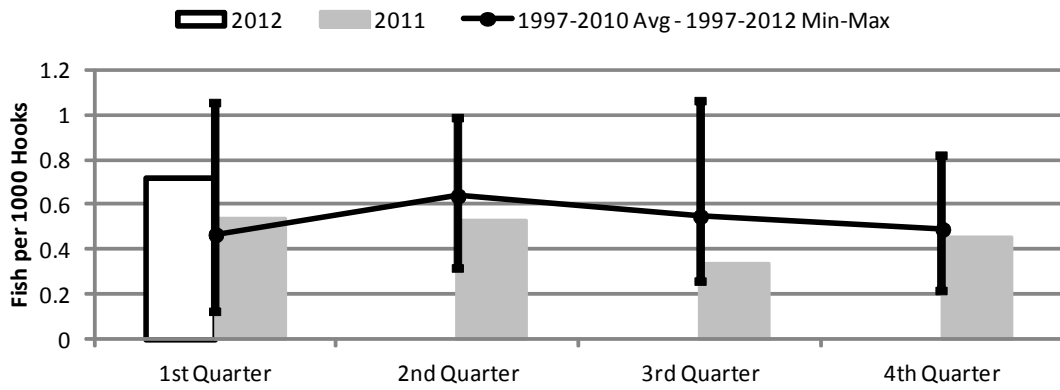
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.68	0.00	0.00	0.00
2011	0.99	0.88	0.81	0.79
1997-2012 Max	1.71	1.62	2.20	1.83
1997-2010 Avg	1.14	0.88	1.24	1.25
1997-2012 Min	0.66	0.39	0.67	0.79

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.40	0.00	0.00	0.00
2011	0.36	0.49	0.32	0.32
1997-2012 Max	2.02	1.44	1.31	0.71
1997-2010 Avg	0.62	0.53	0.47	0.41
1997-2012 Min	0.25	0.26	0.27	0.28

**Figure 21. American Samoa Shark Catch per 1000 Hooks by Quarter for**



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.72	0.00	0.00	0.00
2011	0.54	0.52	0.34	0.45
1997-2012 Max	1.05	0.99	1.06	0.82
1997-2010 Avg	0.47	0.64	0.55	0.49
1997-2012 Min	0.12	0.31	0.26	0.22