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

Fisheries Research and Monitoring Division Pacific Islands Fisheries Science Center

The American Samoa longline fishery's summary catch and effort statistics for the third quarter of 2012, 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 December 21, 2012. Table 1 reflects an estimated 100% of the number of sets made by vessels during this period.

The number of active vessels in the third quarter of 2012 (24) was the same as in the third quarter of 2011 (Fig. 1). The 24 active vessels made 1,273 sets and deployed 3,656,112 hooks during the third quarter of 2012. However, compared to the third quarter of last year, both the number of sets (Fig. 2) and the number of hooks set increased by 10.2% (Fig. 3). The average number of hooks per set stayed the same as in the third quarter of 2011.

The total catch for all species combined was 100,599 fish in 2012, an increase of 58% compared to the third quarter of 2011 (Fig. 4). Catch of all species, with the exception of yellowfin tuna and billfish, increased compared to third quarter 2011. As usual, albacore dominated the catch with 70,665 fish caught (an increase of 75.5% from the 40,269 fish caught in the third quarter of 2011, Fig. 5). The number of bigeye tuna caught increased slightly (0.6%, Fig. 6), while yellowfin catch decreased by 15.1% (Fig. 8) and skipjack tuna catch increased significantly (48%, Fig. 7). The number of mahimahi caught increased by 21.4% (Fig. 9), and the number of billfish caught decreased by 12.7% (Fig. 11). At the same time, the number of wahoo caught increased by 2.5% (Fig. 10) and numbers of sharks caught increased by 55% (Fig. 12).

The overall catch per unit effort (CPUE, number of fish per 1000 hooks), increased by 43.3% compared to the third quarter of 2011, from 19.2 fish per 1000 hooks to 27.5 fish per 1000 hooks (Fig. 13). CPUE for albacore, skipjack tuna, mahimahi, and shark increased. CPUE for all other species decreased. CPUE for albacore increased by 59.2% (Fig. 14), skipjack tuna CPUE increased by 34.2% (Fig. 16), CPUE of mahimahi increased by 9.5% (Fig. 18), and shark CPUE increased by 38.2% (Fig. 21). CPUE for bigeye tuna decreased by 9% (Fig. 15), yellowfin tuna CPUE decreased by 23.1% (Fig. 17), billfish CPUE decreased by 22% (Fig. 20), and wahoo CPUE decreased by 6.2% (Fig. 19).

While quarterly catch rates of albacore tuna, the primary target species, are reversing their downward trend and returning towards long term average catch rates, American Samoa's longline fishery continues to experience challenging conditions. Catch rates of albacore are still below long term averages and catch rates of many other marketable species are also at low levels.

<sup>&</sup>lt;sup>1</sup> PIFSC Data Report DR-13-002 Issued 22 February 2013

Table 1. Summary of fish catch and nominal fishing effort by American Samoa Longline vessels during the third quarter of 2012 based on longline logbooks processed as of December 21, 2012.

## TRIP INFORMATION

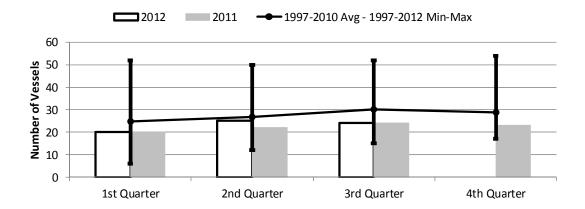
Number of Vessels:24Number of Trips:63Number of Sets:1,2731000's of Hooks Set:3,656Number of Light Sticks532

Used:

CATCH INFORMATION	ON	ı
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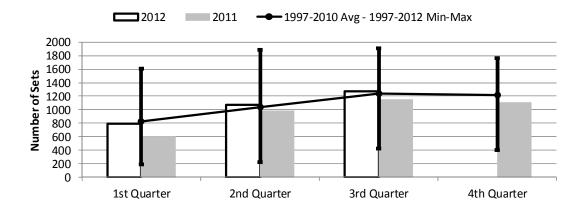
Species	Number Caught	Number Kept	Number Released	Number Caught per 1000 Hooks
BILLFISH				
Blue marlin	330	127	203	0.09
Striped marlin	74	19	55	0.02
Sailfish	119	8	111	0.03
Spearfish	301	18	283	0.08
Swordfish	99	78	21	0.03
TOTAL BILLFISH	923	250	673	0.25
SHARKS				
Blue shark	1,175	47	1,128	0.32
Shortfin mako shark	219	2	217	0.06
Thresher shark	61	0	61	0.02
White tip oceanic shark	195	0	195	0.05
Sharks (unknown)	73	0	73	0.02
TOTAL SHARKS	1,723	49	1,674	0.47
TUNA				
Albacore tuna	70,665	70,444	221	19.33
Bigeye tuna	2,965	2,721	244	0.81
Bluefin tuna	25	21	4	0.01
Skipjack tuna	12,894	10,874	2,020	3.53
Yellowfin tuna	3,300	3,078	222	0.90
TOTAL TUNA	89,849	87,138	2,711	24.58
OTHER PELAGICS				
Mahimahi	838	607	231	0.23
Moonfish	199	75	124	0.05
Oilfish	3,845	2	3,843	1.05
Pomfret	260	35	225	0.07
Wahoo	2,768	1,888	880	0.76
TOTAL OTHER PELAGICS	7,910	2,607	5,303	2.16
NON-PMUS				
Pelagic fishes (unknown)	194	0	194	0.05
TOTAL NON-PMUS	194	0	194	0.05
TOTAL ALL SPECIES	100,599	90,044	10,555	27.52

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



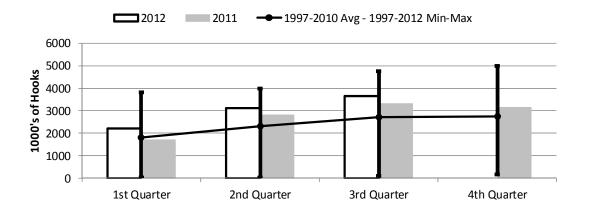
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	20	25	24	0
2011	20	22	24	23
1997-2012 Max	52	50	52	54
1997-2010 Avg	24	26	30	28
1997-2012 Min	6	12	15	17

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



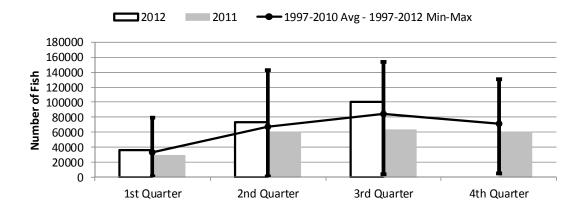
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	788	1,073	1,273	0
2011	601	986	1,155	1,104
1997-2012 Max	1,602	1,886	1,904	1,759
1997-2010 Avg	830	1,033	1,242	1,216
1997-2012 Min	192	223	424	401

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



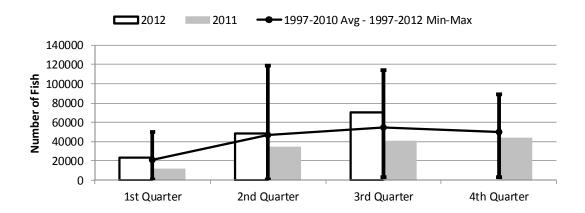
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	2,194	3,102	3,656	0
2011	1,695	2,811	3,317	3,138
1997-2012 Max	3,805	3,992	4,769	4,985
1997-2010 Avg	1,795	2,296	2,726	2,743
1997-2012 Min	41	50	101	175

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



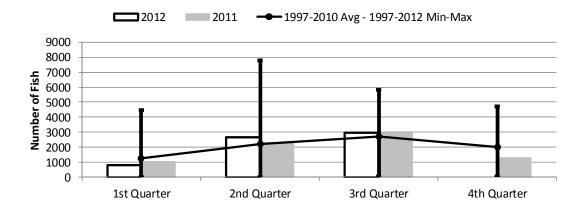
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	35,897	73,768	100,599	0
2011	29,498	60,624	63,705	60,582
1997-2012 Max	79,588	142,603	153,301	130,238
1997-2010 Avg	33,269	67,339	84,531	71,293
1997-2012 Min	1,315	1,416	4,127	5,201

Figure 5. American Samoa Longline Albacore Catch by Quarter for



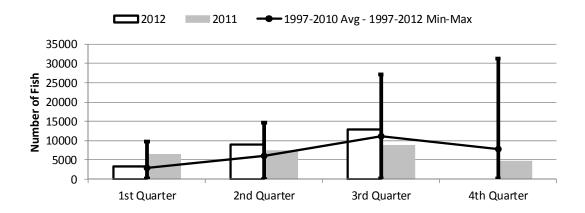
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	23,443	48,184	70,665	0
2011	11,899	34,320	40,269	43,983
1997-2012 Max	50,382	118,994	113,831	89,389
1997-2010 Avg	21,134	47,018	55,018	49,745
1997-2012 Min	940	851	3,182	3,465

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



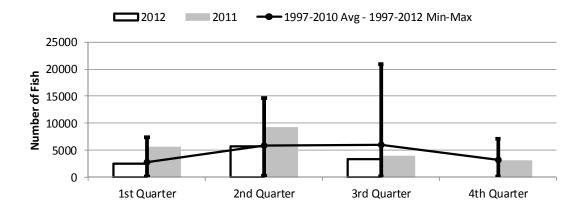
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	800	2,648	2,965	0
2011	1,043	2,303	2,948	1,320
1997-2012 Max	4,470	7,785	5,824	4,728
1997-2010 Avg	1,283	2,236	2,702	1,997
1997-2012 Min	6	26	55	55

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



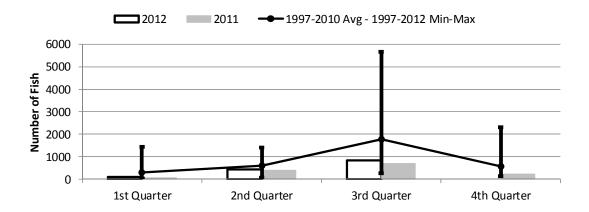
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	3,307	9,037	12,894	0
2011	6,446	7,465	8,717	4,718
1997-2012 Max	9,801	14,606	27,234	31,191
1997-2010 Avg	2,994	6,021	11,139	7,828
1997-2012 Min	116	6	244	178

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



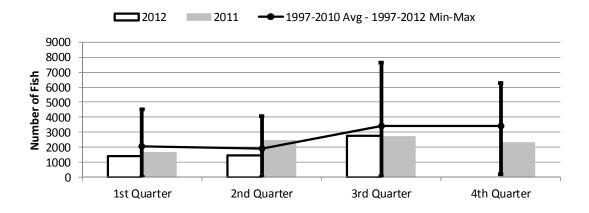
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	2,530	5,711	3,300	0
2011	5,645	9,185	3,887	3,111
1997-2012 Max	7,426	14,681	20,993	7,104
1997-2010 Avg	2,811	5,872	6,068	3,206
1997-2012 Min	213	356	84	177

Figure 9. American Samoa Mahimahi Catch by Quarter for



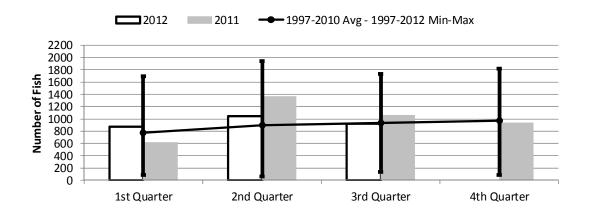
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	93	421	838	0
2011	72	405	690	240
1997-2012 Max	1,454	1,392	5,642	2,297
1997-2010 Avg	294	590	1,779	586
1997-2012 Min	30	59	280	146

Figure 10. American Samoa Wahoo Catch by Quarter for



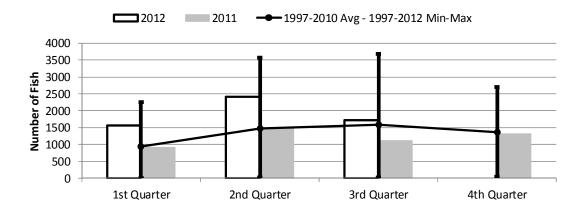
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1,413	1,472	2,768	0
2011	1,682	2,484	2,701	2,331
1997-2012 Max	4,524	4,076	7,629	6,281
1997-2010 Avg	2,042	1,913	3,399	3,412
1997-2012 Min	27	20	68	210

Figure 11. American Samoa Billfish Catch by Quarter for



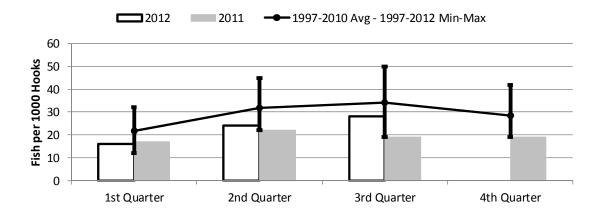
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	875	1,045	923	0
2011	611	1,367	1,061	931
1997-2012 Max	1,692	1,934	1,729	1,819
1997-2010 Avg	777	900	930	973
1997-2012 Min	83	58	132	84

Figure 12. American Samoa Shark Catch by Quarter for



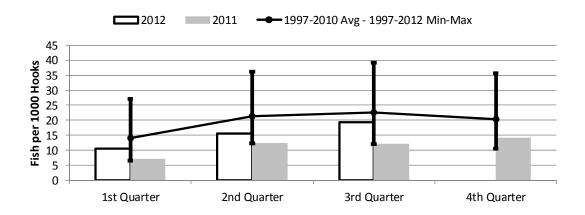
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1,565	2,405	1,723	0
2011	915	1,475	1,112	1,322
1997-2012 Max	2,260	3,562	3,686	2,697
1997-2010 Avg	943	1,472	1,594	1,361
1997-2012 Min	5	16	26	49

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



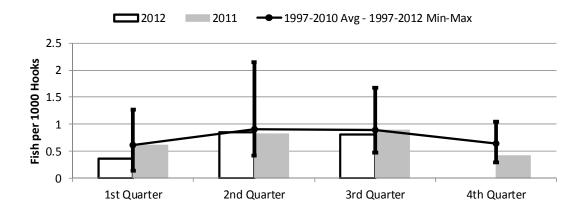
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	16	24	28	0
2011	17	22	19	19
1997-2012 Max	32	45	50	42
1997-2010 Avg	21	31	34	28
1997-2012 Min	12	22	19	19

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



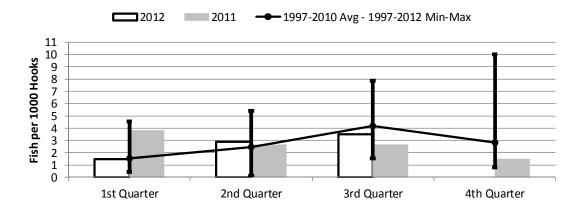
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	10.68	15.53	19.33	0.00
2011	7.02	12.21	12.14	14.01
1997-2012 Max	27.01	36.18	39.13	35.75
1997-2010 Avg	14.19	21.44	22.66	20.34
1997-2012 Min	6.58	12.21	12.14	10.54

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



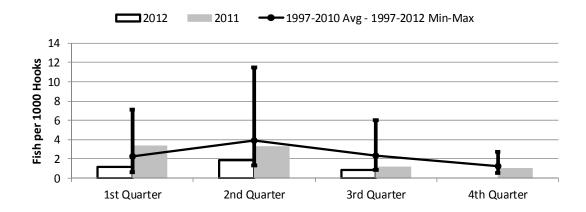
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.36	0.85	0.81	0.00
2011	0.62	0.82	0.89	0.42
1997-2012 Max	1.27	2.15	1.68	1.05
1997-2010 Avg	0.62	0.90	0.89	0.64
1997-2012 Min	0.15	0.41	0.48	0.29

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



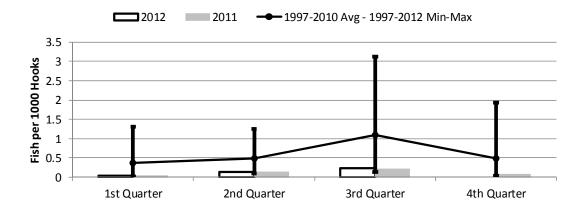
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1.51	2.91	3.53	0.00
2011	3.80	2.66	2.63	1.50
1997-2012 Max	4.56	5.39	7.84	9.98
1997-2010 Avg	1.57	2.46	4.19	2.81
1997-2012 Min	0.44	0.12	1.56	0.79

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



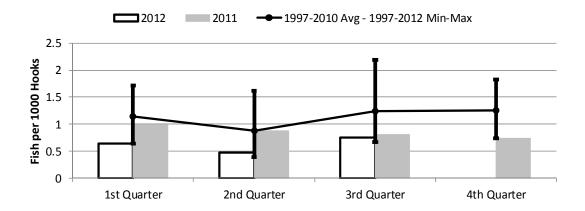
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	1.15	1.84	0.90	0.00
2011	3.33	3.27	1.17	0.99
1997-2012 Max	7.11	11.51	6.04	2.76
1997-2010 Avg	2.24	3.95	2.35	1.26
1997-2012 Min	0.66	1.34	0.83	0.55

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



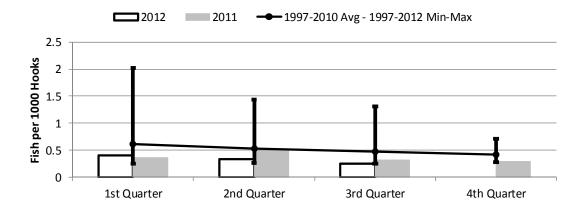
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.04	0.14	0.23	0.00
2011	0.04	0.14	0.21	0.08
1997-2012 Max	1.30	1.25	3.13	1.93
1997-2010 Avg	0.38	0.49	1.10	0.50
1997-2012 Min	0.02	0.10	0.14	0.04

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



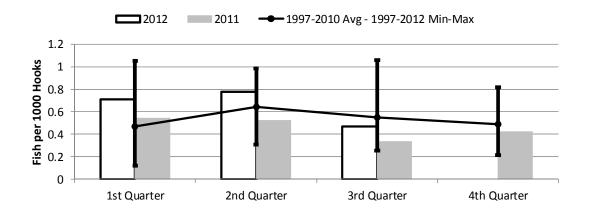
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.64	0.47	0.76	0.00
2011	0.99	0.88	0.81	0.74
1997-2012 Max	1.71	1.62	2.20	1.83
1997-2010 Avg	1.14	0.88	1.24	1.25
1997-2012 Min	0.64	0.39	0.67	0.74

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.40	0.34	0.25	0.00
2011	0.36	0.49	0.32	0.30
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	0.25	0.28

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



	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2012	0.71	0.78	0.47	0.00
2011	0.54	0.52	0.34	0.42
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