

PIFSC Report on the Logbook Program for the American Samoa Longline Fishery January – March 2014¹

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Pacific Islands Fisheries Science Center

This report provides a summary of the American Samoa longline fishery's catch and effort statistics for the first quarter of 2014. The fishery continues to experience challenges. Most important, catch and catch per unit effort (CPUE) of the primary target species albacore tuna are both well below long term averages. Catches of many other marketable species have also remained low during the first quarter of 2014, as they were throughout the previous year.

Table 1 provides summary statistics by date of haul. This table was derived from all logbook data submitted to the American Samoa Department of Marine and Wildlife Resources and posted at the Pacific Islands Fisheries Science Center (PIFSC) by August 19, 2014. Although very long trips (60-90 days) are typical for the American Samoa longline fishery, causing delays, all logbooks recording fishing activity during the first quarter of 2014 should have been submitted by this report date.

The American Samoa longline fleet reported about a fifth less fishing effort in the first quarter of 2014 than in the same quarter of 2013. There were only 13 active vessels, 18.8% less than in 2013 (Fig. 1). These 13 vessels made 319 sets and deployed 882,500 hooks, which was 46.7% fewer sets (Fig. 2) and 49.7% less hooks (Fig. 3) than were registered in the same quarter of 2013. The average number of hooks per set was also 5.6% lower (down from 2,931 hooks/set in 2013 to 2,766 hooks/set in 2014).

The total catch (all species combined) was also well below the long term average. A total of 12,326 fish were caught, which was about half the total reported during the first quarter of 2013 (Fig. 4). With the exception of skipjack tuna, the number of fish caught decreased for all species (individually and in total), when compared with the first quarter of 2013. Although the main target species, albacore tuna, dominated the catch as usual (34.5%), the 4,250 albacore caught in the first quarter of 2014 is about 70% less than the 14,122 caught in the same quarter of 2013 (Fig. 5). Skipjack tuna catch increased slightly (by 4%, Fig. 7), while the catch of all other species and groups decreased, including: yellowfin tuna (5.2%, Fig. 8), bigeye tuna (6.9%, Fig. 6), mahimahi (77.1%, Fig. 9), wahoo (47.5%, Fig. 10), billfishes (42.2%, Fig. 11), and sharks (16.7%, Fig. 12).

Despite the large decrease in catch, the overall CPUE (number of fish of all species per 1000 hooks) increased slightly (by 1.2%) in the first quarter of 2014, compared with 2013. This average nearly reached 14 fish/1000 hooks, which was slightly above the 13.8 fish/1000 hooks seen the previous year (Fig. 13). CPUE for albacore tuna and mahimahi decreased, while CPUE increased to a varying extent for all other species. CPUE for the targeted albacore decreased by 40.2% (Fig. 14), reaching its lowest long term level. However, CPUE for the second most targeted species, skipjack tuna, increased by 107.3% (Fig. 16), bigeye tuna CPUE increased 87.1% (Fig. 15), and yellowfin tuna CPUE, which may be increasingly supplying local fresh fish markets, increased 88.3% (Fig. 17). Mahimahi CPUE decreased 54.6% (Fig. 18), but this species represents a very small component of the catch. CPUE for wahoo increased 3.9% (Fig. 19), CPUE for billfishes increased 15.7% (Fig. 20), while shark CPUE increased by 66.6% (Fig. 21).

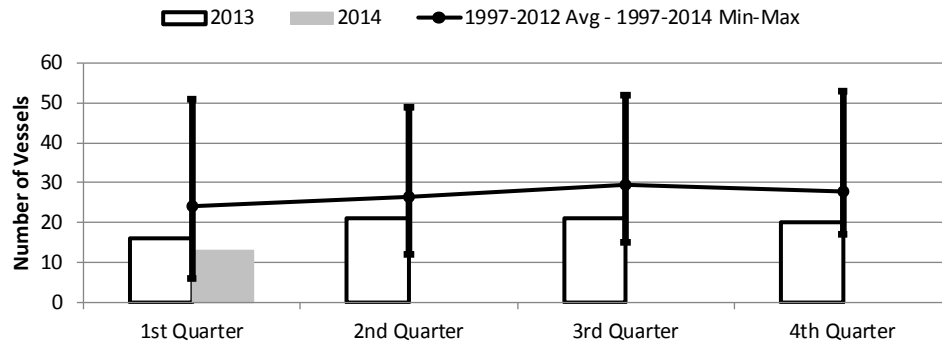
¹ PIFSC Data Report DR-14-014
Issued 10 October 2014

Table 1. Summary of fish catch and nominal fishing effort by American Samoa Longline vessels during the first quarter of 2014 based on longline logbooks processed as of August 19th, 2014.
The number of trips in this table represent the total number of trips reporting some fishing activity in the first quarter.

| TRIP INFORMATION | | | | |
|-----------------------------|------------------------------|--------------------|------------------------|-------------------------------------|
| | Number of Vessels: | | | 13 |
| | Number of Trips: | | | 26 |
| | Number of Sets: | | | 319 |
| | 1000's of Hooks Set: | | | 882 |
| | Number of Light Sticks Used: | | | 0 |
| CATCH INFORMATION | | | | |
| Species | Number Caught | Number Kept | Number Released | Number Caught per 1000 Hooks |
| BILLFISH | | | | |
| Blue marlin | 203 | 77 | 126 | 0.23 |
| Striped marlin | 32 | 20 | 12 | 0.04 |
| Sailfish | 14 | 4 | 10 | 0.02 |
| Spearfish | 99 | 8 | 91 | 0.11 |
| Swordfish | 39 | 17 | 22 | 0.04 |
| TOTAL BILLFISH | 387 | 126 | 261 | 0.44 |
| SHARKS | | | | |
| Blue shark | 278 | 5 | 273 | 0.32 |
| Shortfin mako shark | 42 | 1 | 41 | 0.05 |
| Thresher shark | 33 | 0 | 33 | 0.04 |
| White tip oceanic shark | 105 | 0 | 105 | 0.12 |
| Sharks (unknown) | 71 | 1 | 70 | 0.08 |
| TOTAL SHARKS | 529 | 7 | 522 | 0.60 |
| TUNA | | | | |
| Albacore tuna | 4,250 | 4,232 | 18 | 4.82 |
| Bigeye tuna | 642 | 638 | 4 | 0.73 |
| Bluefin tuna | 3 | 3 | 0 | 0.00 |
| Skipjack tuna | 2,267 | 2,267 | 0 | 2.57 |
| Yellowfin tuna | 2,839 | 2,829 | 10 | 3.22 |
| TOTAL TUNA | 10,001 | 9,969 | 32 | 11.33 |
| OTHER PELAGICS | | | | |
| Mahimahi | 43 | 43 | 0 | 0.05 |
| Moonfish | 35 | 6 | 29 | 0.04 |
| Oilfish | 486 | 6 | 480 | 0.55 |
| Pomfret | 59 | 2 | 57 | 0.07 |
| Wahoo | 707 | 704 | 3 | 0.80 |
| TOTAL OTHER PELAGICS | 1,330 | 761 | 569 | 1.51 |
| NON-PMUS | | | | |
| Pelagic fishes (unknown) | 79 | 0 | 79 | 0.09 |
| TOTAL NON-PMUS | 79 | 0 | 79 | 0.09 |
| TOTAL ALL SPECIES | 12,326 | 10,863 | 1,463 | 13.97 |

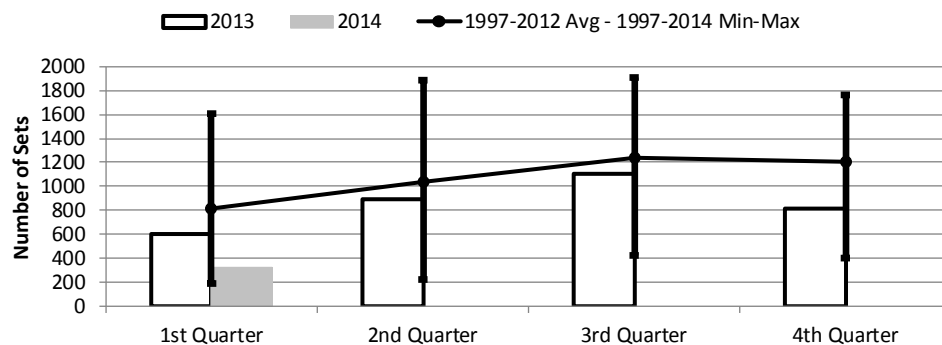
Note: In the charts, the long-term statistics for maximum (Max) and minimum (Min) include the first quarter of 2014; the rest of the quarters reflect the maximum and minimum for 2013. Also note that long-term averages (Avg) are for 1997-2012. In the past, there were delays in receiving the logbook data. This date range is being revised to include averages up to the current year in a new program under development.

Figure 1. Quarterly Effort, Number of American Samoa Longline Vessels Submitting Logbooks



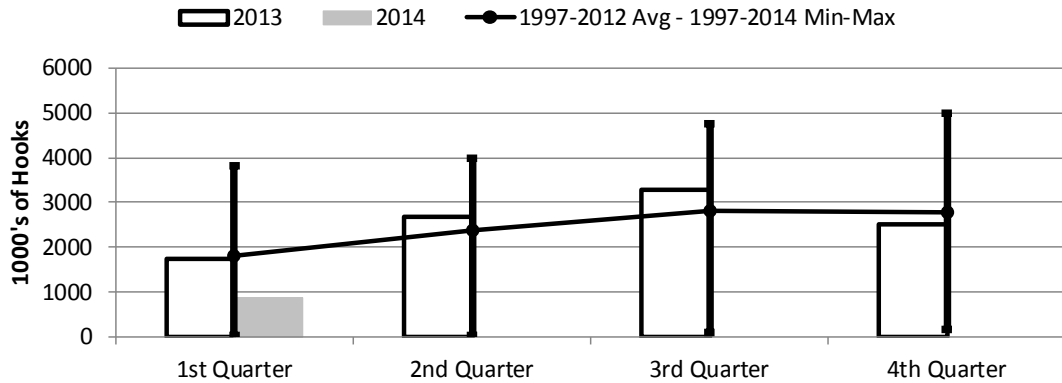
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 13 | 0 | 0 | 0 |
| 2013 | 16 | 21 | 21 | 20 |
| 1997-2014 Max | 51 | 49 | 52 | 53 |
| 1997-2012 Avg | 24 | 26 | 29 | 27 |
| 1997-2014 Min | 6 | 12 | 15 | 17 |

Figure 2. Quarterly Effort, Number of Sets by American Samoa Longliners



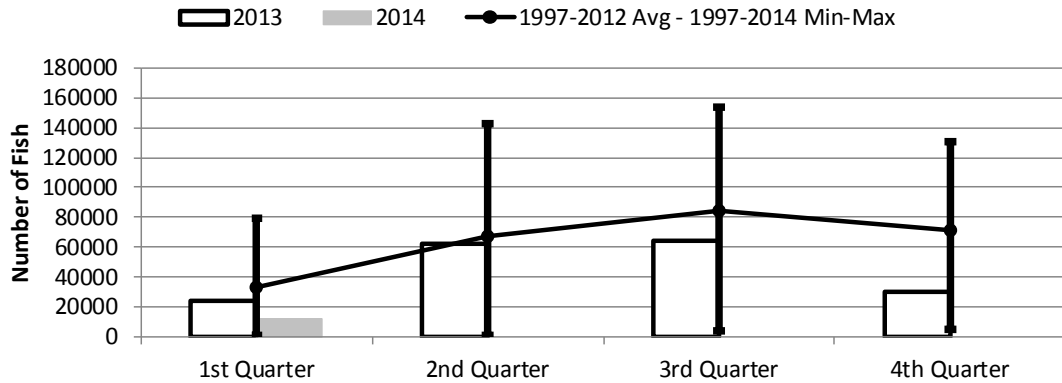
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 319 | 0 | 0 | 0 |
| 2013 | 598 | 895 | 1,103 | 815 |
| 1997-2014 Max | 1,602 | 1,886 | 1,904 | 1,758 |
| 1997-2012 Avg | 813 | 1,034 | 1,240 | 1,201 |
| 1997-2014 Min | 192 | 224 | 422 | 401 |

Figure 3. Quarterly Effort, Number of Hooks Set by American Samoa Longliners



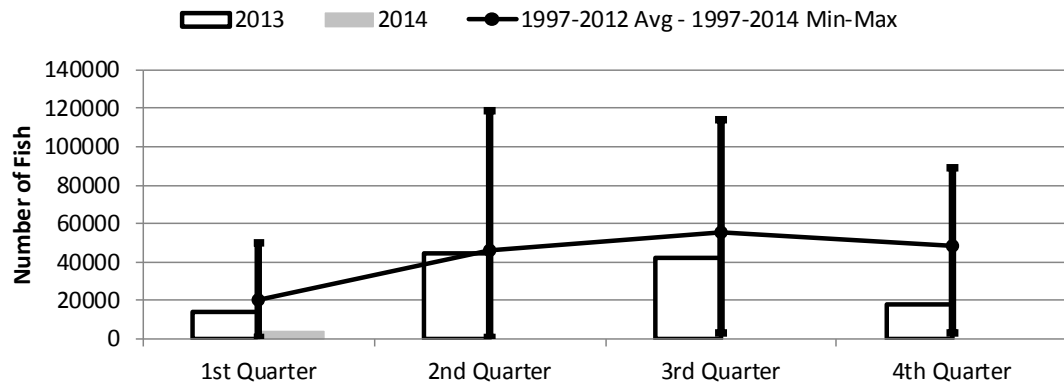
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 882 | 0 | 0 | 0 |
| 2013 | 1,753 | 2,663 | 3,271 | 2,495 |
| 1997-2014 Max | 3,804 | 3,995 | 4,769 | 4,985 |
| 1997-2012 Avg | 1,814 | 2,383 | 2,824 | 2,794 |
| 1997-2014 Min | 41 | 50 | 101 | 175 |

Figure 4. Quarterly Catch, Total Number (All Species) by American Samoa Longliners



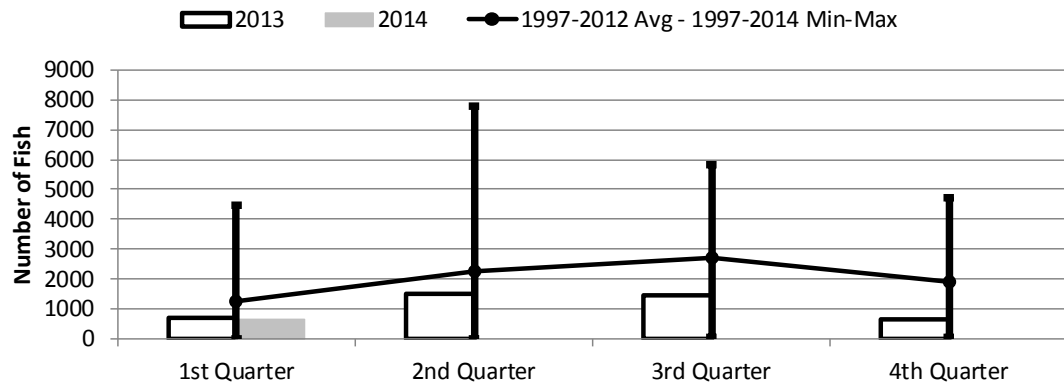
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 12,326 | 0 | 0 | 0 |
| 2013 | 24,195 | 61,813 | 64,414 | 29,755 |
| 1997-2014 Max | 79,567 | 142,603 | 153,301 | 130,238 |
| 1997-2012 Avg | 33,199 | 67,412 | 84,294 | 71,129 |
| 1997-2014 Min | 1,315 | 1,418 | 4,127 | 5,201 |

Figure 5. Quarterly Catch of Albacore Tuna by American Samoa Longliners



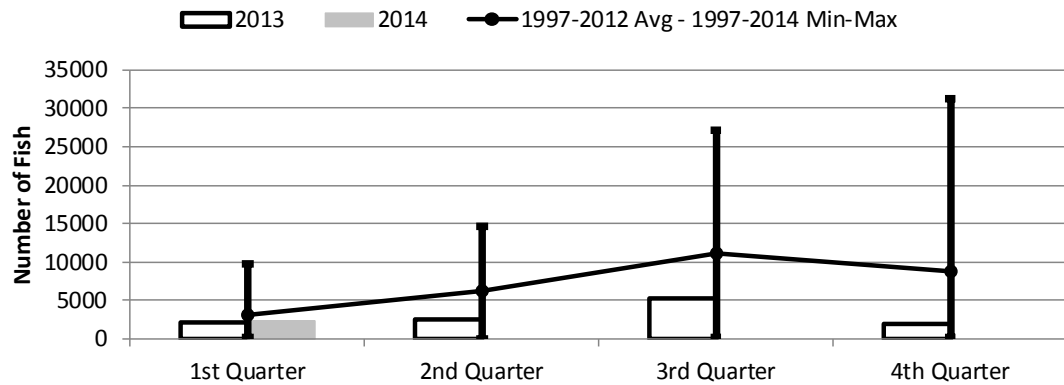
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 4,250 | 0 | 0 | 0 |
| 2013 | 14,122 | 44,706 | 42,282 | 18,005 |
| 1997-2014 Max | 50,382 | 118,994 | 113,831 | 89,389 |
| 1997-2012 Avg | 20,702 | 46,354 | 55,112 | 48,736 |
| 1997-2014 Min | 940 | 851 | 3,182 | 3,465 |

Figure 6. Quarterly Catch of Bigeye Tuna by American Samoa Longliners



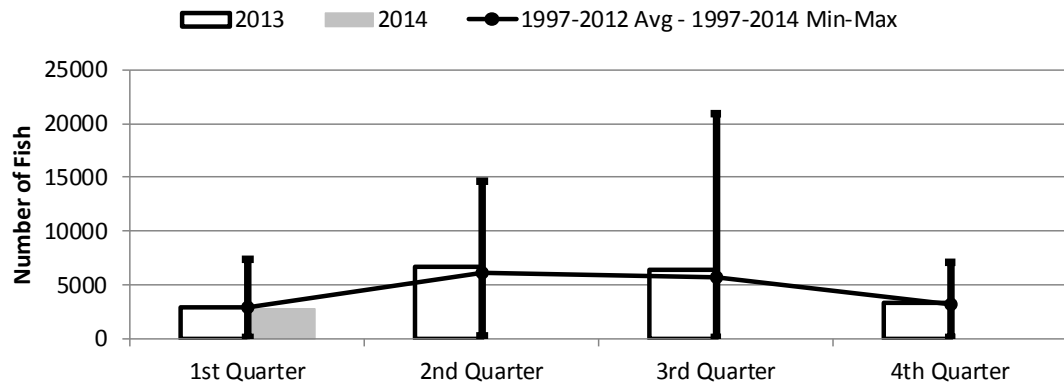
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 642 | 0 | 0 | 0 |
| 2013 | 690 | 1,513 | 1,463 | 649 |
| 1997-2014 Max | 4,466 | 7,785 | 5,824 | 4,728 |
| 1997-2012 Avg | 1,237 | 2,267 | 2,737 | 1,922 |
| 1997-2014 Min | 6 | 26 | 55 | 55 |

Figure 7. Quarterly Catch of Skipjack Tuna by American Samoa Longliners



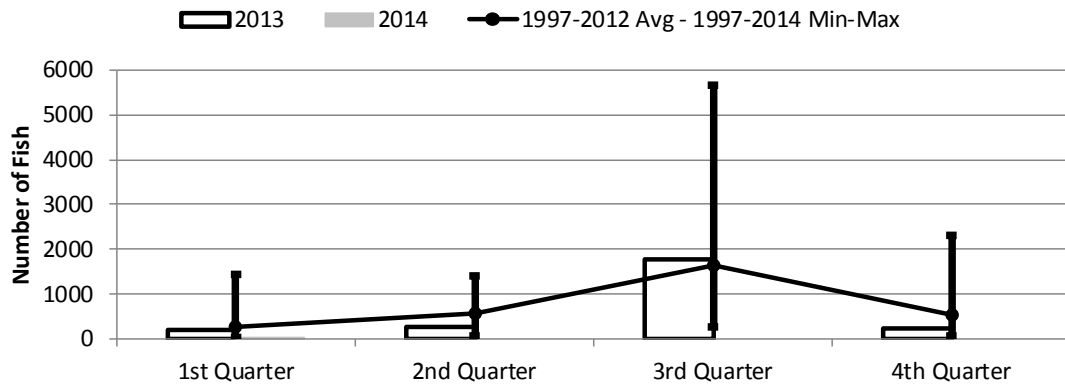
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 2,267 | 0 | 0 | 0 |
| 2013 | 2,179 | 2,459 | 5,187 | 1,880 |
| 1997-2014 Max | 9,809 | 14,606 | 27,234 | 31,191 |
| 1997-2012 Avg | 3,230 | 6,312 | 11,107 | 8,822 |
| 1997-2014 Min | 116 | 6 | 244 | 178 |

Figure 8. Quarterly Catch of Yellowfin Tuna by American Samoa Longliners



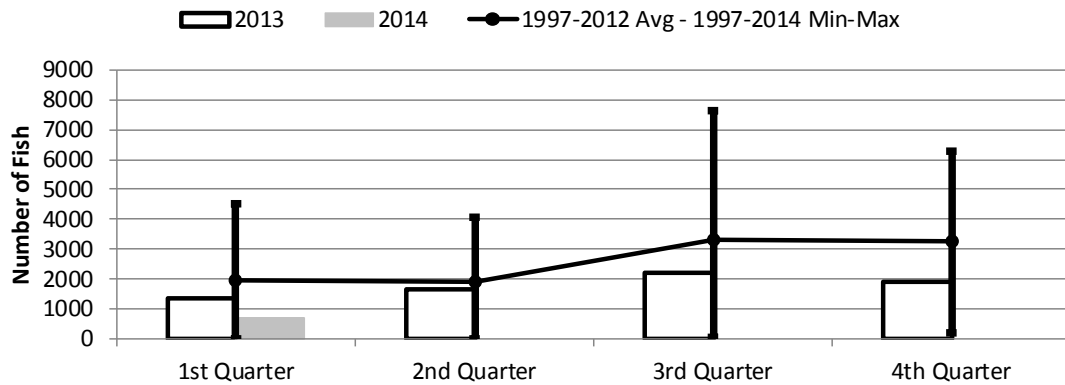
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 2,839 | 0 | 0 | 0 |
| 2013 | 2,995 | 6,688 | 6,391 | 3,343 |
| 1997-2014 Max | 7,426 | 14,681 | 20,993 | 7,104 |
| 1997-2012 Avg | 2,971 | 6,082 | 5,762 | 3,197 |
| 1997-2014 Min | 213 | 358 | 84 | 177 |

Figure 9. Quarterly Catch of Mahimahi by American Samoa Longliners



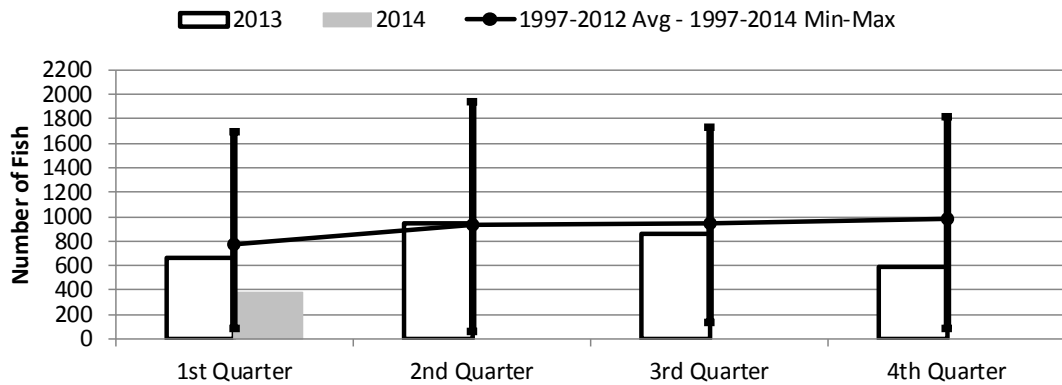
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 43 | 0 | 0 | 0 |
| 2013 | 188 | 280 | 1,767 | 226 |
| 1997-2014 Max | 1,455 | 1,392 | 5,642 | 2,297 |
| 1997-2012 Avg | 268 | 568 | 1,652 | 532 |
| 1997-2014 Min | 30 | 59 | 280 | 77 |

Figure 10. Quarterly Catch of Wahoo by American Samoa Longliners



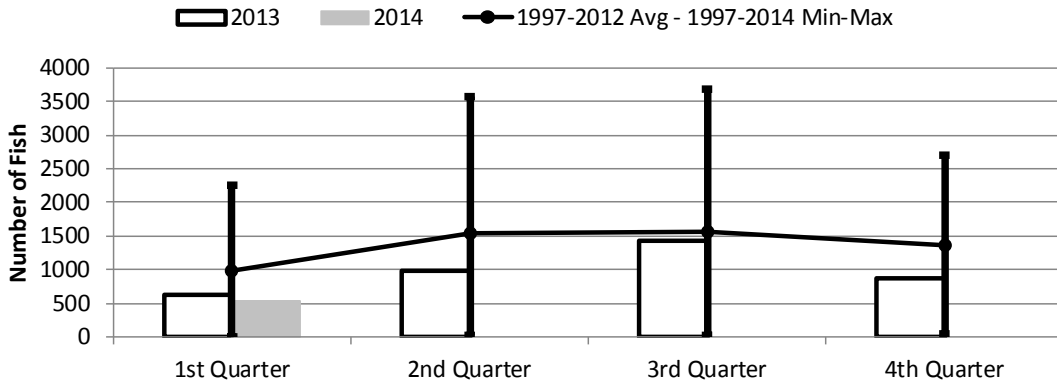
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 707 | 0 | 0 | 0 |
| 2013 | 1,347 | 1,671 | 2,201 | 1,926 |
| 1997-2014 Max | 4,524 | 4,076 | 7,629 | 6,281 |
| 1997-2012 Avg | 1,980 | 1,925 | 3,320 | 3,283 |
| 1997-2014 Min | 27 | 20 | 68 | 210 |

Figure 11. Quarterly Catch of All Billfishes by American Samoa Longliners



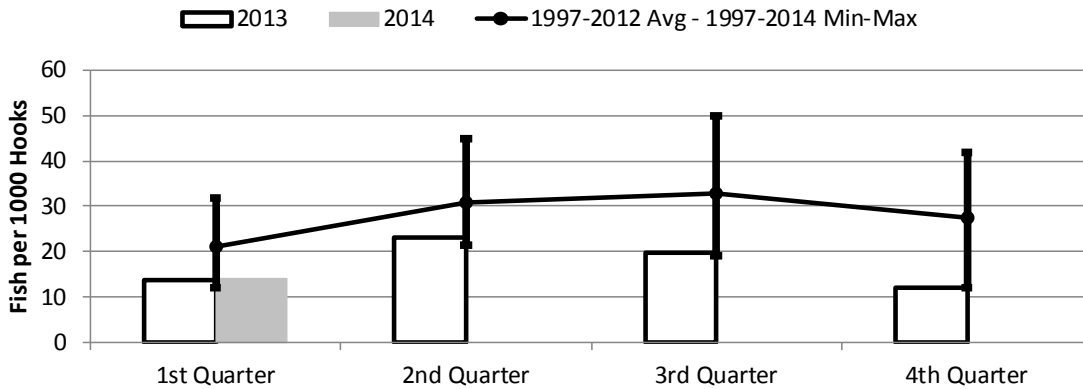
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 387 | 0 | 0 | 0 |
| 2013 | 669 | 950 | 861 | 587 |
| 1997-2014 Max | 1,692 | 1,934 | 1,729 | 1,819 |
| 1997-2012 Avg | 772 | 939 | 939 | 981 |
| 1997-2014 Min | 83 | 58 | 132 | 84 |

Figure 12. Quarterly Catch of All Shark Species by American Samoa Longliners



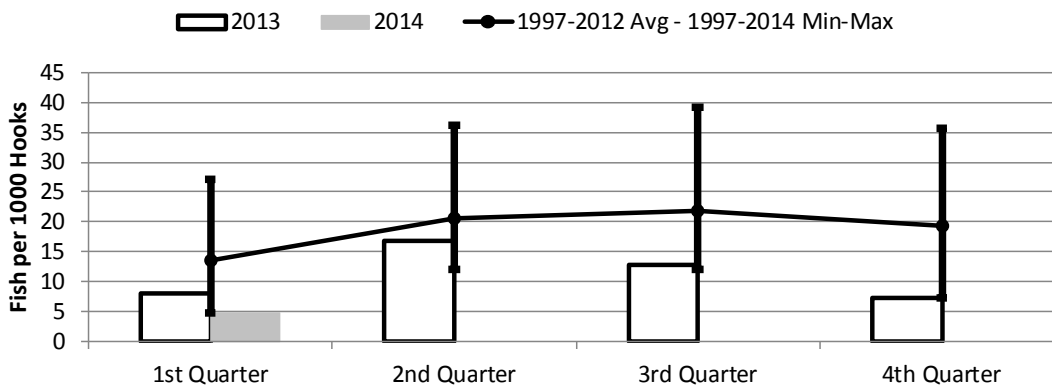
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 529 | 0 | 0 | 0 |
| 2013 | 635 | 990 | 1,421 | 873 |
| 1997-2014 Max | 2,262 | 3,562 | 3,686 | 2,695 |
| 1997-2012 Avg | 980 | 1,531 | 1,572 | 1,365 |
| 1997-2014 Min | 5 | 16 | 26 | 49 |

Figure 13. Quarterly CPUE of All Species (No/1000 hooks) by American Samoa Longliners



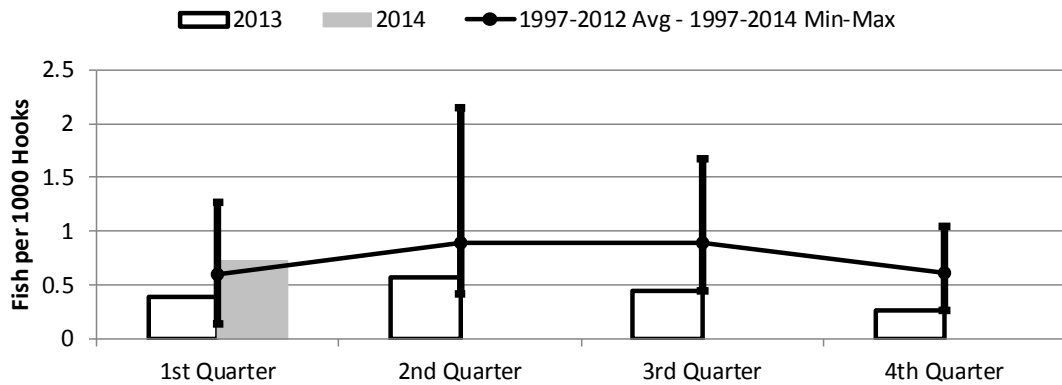
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 13.97 | 0.00 | 0.00 | 0.00 |
| 2013 | 13.80 | 23.21 | 19.69 | 11.92 |
| 1997-2014 Max | 31.98 | 44.76 | 49.87 | 41.86 |
| 1997-2012 Avg | 21.08 | 30.65 | 32.71 | 27.62 |
| 1997-2014 Min | 12.02 | 21.48 | 19.21 | 11.92 |

Figure 14. Quarterly CPUE of Albacore (No/1000 Hooks) by American Samoa Longliners



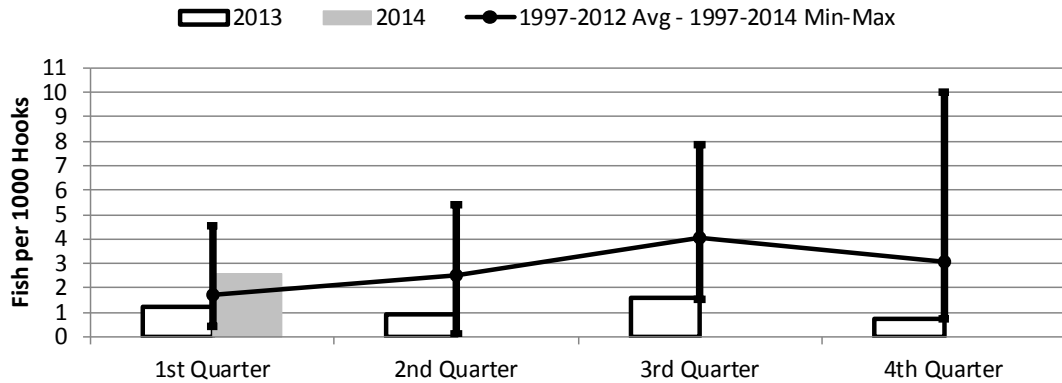
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 4.82 | 0.00 | 0.00 | 0.00 |
| 2013 | 8.06 | 16.79 | 12.92 | 7.21 |
| 1997-2014 Max | 27.01 | 36.18 | 39.13 | 35.75 |
| 1997-2012 Avg | 13.53 | 20.49 | 21.80 | 19.45 |
| 1997-2014 Min | 4.82 | 12.18 | 12.14 | 7.21 |

Figure 15. Quarterly CPUE of Bigeye Tuna (No/1000 Hooks) by American Samoa Longliners



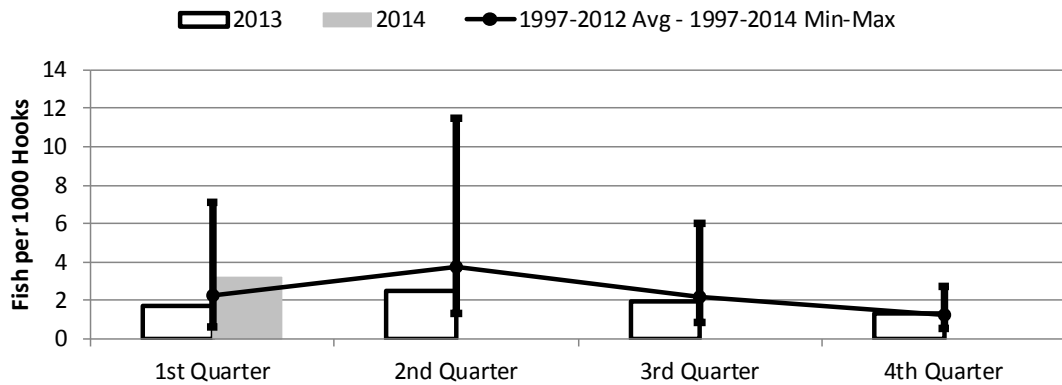
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 0.73 | 0.00 | 0.00 | 0.00 |
| 2013 | 0.39 | 0.57 | 0.45 | 0.26 |
| 1997-2014 Max | 1.27 | 2.15 | 1.68 | 1.05 |
| 1997-2012 Avg | 0.60 | 0.89 | 0.89 | 0.62 |
| 1997-2014 Min | 0.15 | 0.41 | 0.45 | 0.26 |

Figure 16. Quarterly CPUE of Skipjack Tuna (No/1000 Hooks) by American Samoa Longliners



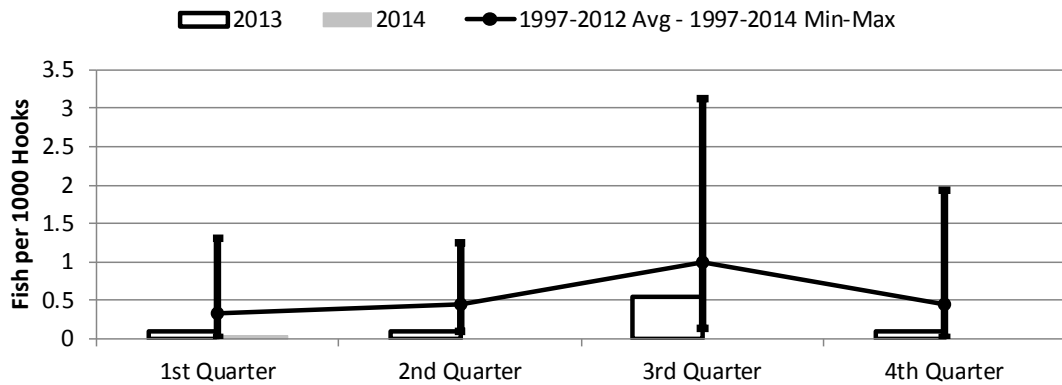
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 2.57 | 0.00 | 0.00 | 0.00 |
| 2013 | 1.24 | 0.92 | 1.59 | 0.75 |
| 1997-2014 Max | 4.56 | 5.39 | 7.84 | 9.98 |
| 1997-2012 Avg | 1.70 | 2.50 | 4.05 | 3.08 |
| 1997-2014 Min | 0.44 | 0.12 | 1.56 | 0.75 |

Figure 17. Quarterly CPUE of Yellowfin Tuna (No/1000 Hooks) by American Samoa Longliners



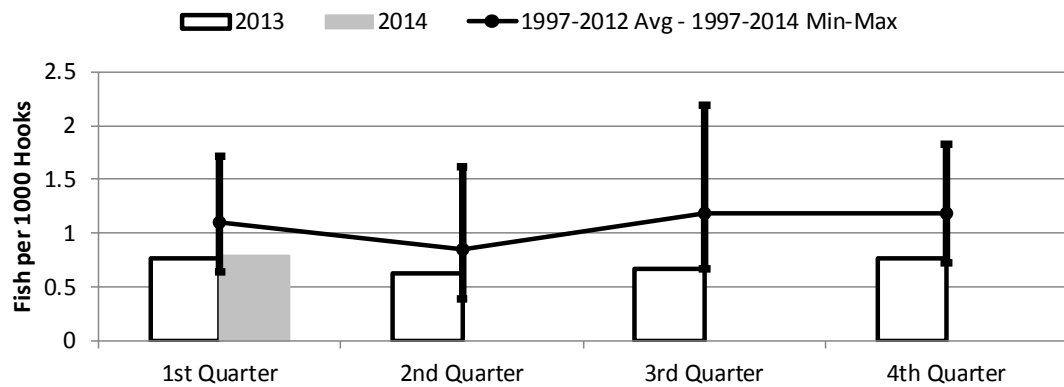
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 3.22 | 0.00 | 0.00 | 0.00 |
| 2013 | 1.71 | 2.51 | 1.95 | 1.34 |
| 1997-2014 Max | 7.11 | 11.51 | 6.04 | 2.76 |
| 1997-2012 Avg | 2.24 | 3.77 | 2.19 | 1.22 |
| 1997-2014 Min | 0.66 | 1.34 | 0.83 | 0.55 |

Figure 18. Quarterly CPUE of Mahimahi (No/1000 Hooks) by American Samoa Longliners



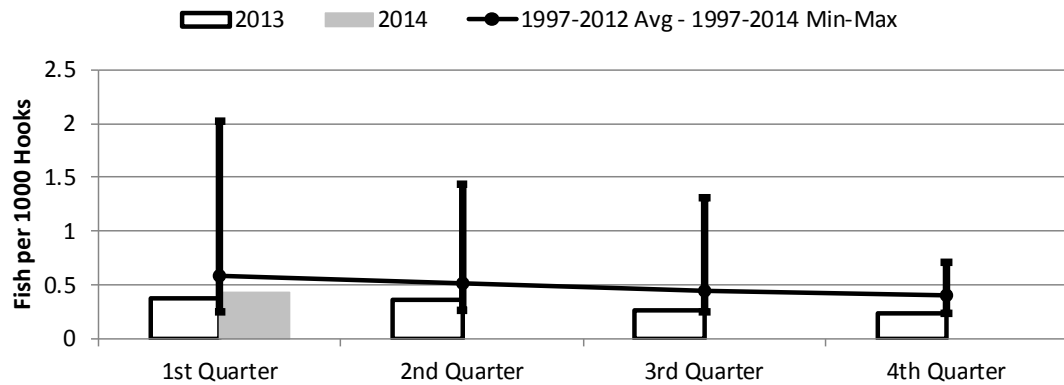
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 0.05 | 0.00 | 0.00 | 0.00 |
| 2013 | 0.11 | 0.11 | 0.54 | 0.09 |
| 1997-2014 Max | 1.31 | 1.25 | 3.13 | 1.93 |
| 1997-2012 Avg | 0.33 | 0.44 | 0.99 | 0.44 |
| 1997-2014 Min | 0.02 | 0.10 | 0.14 | 0.02 |

Figure 19. Quarterly CPUE of Wahoo (No/1000 Hooks) by American Samoa Longliners



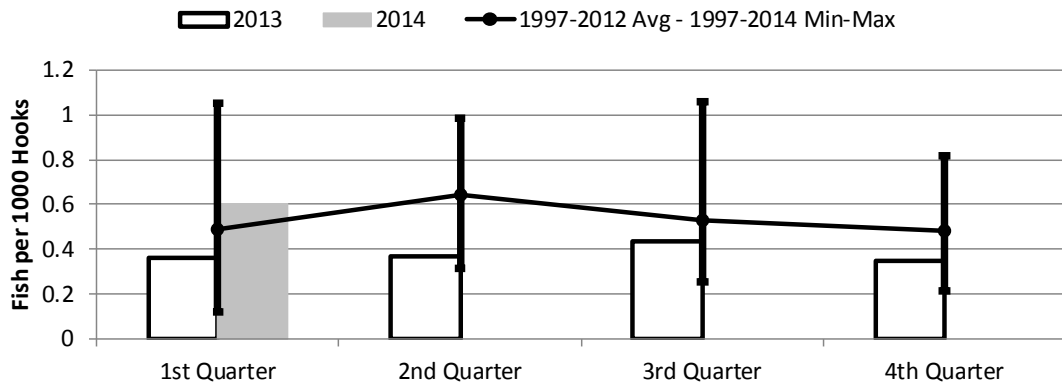
| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 0.80 | 0.00 | 0.00 | 0.00 |
| 2013 | 0.77 | 0.63 | 0.67 | 0.77 |
| 1997-2014 Max | 1.71 | 1.62 | 2.20 | 1.83 |
| 1997-2012 Avg | 1.10 | 0.86 | 1.19 | 1.19 |
| 1997-2014 Min | 0.64 | 0.39 | 0.67 | 0.72 |

Figure 20. Quarterly CPUE of All Billfishes (No/1000 Hooks) by American Samoa Longliners



| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 0.44 | 0.00 | 0.00 | 0.00 |
| 2013 | 0.38 | 0.36 | 0.26 | 0.24 |
| 1997-2014 Max | 2.02 | 1.43 | 1.31 | 0.71 |
| 1997-2012 Avg | 0.59 | 0.51 | 0.45 | 0.40 |
| 1997-2014 Min | 0.25 | 0.26 | 0.25 | 0.24 |

Figure 21. Quarterly CPUE of All Shark Species (No/1000 Hooks) by American Samoa Longliners



| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------|-------------|-------------|-------------|-------------|
| 2014 | 0.60 | 0.00 | 0.00 | 0.00 |
| 2013 | 0.36 | 0.37 | 0.43 | 0.35 |
| 1997-2014 Max | 1.05 | 0.99 | 1.06 | 0.82 |
| 1997-2012 Avg | 0.49 | 0.64 | 0.53 | 0.48 |
| 1997-2014 Min | 0.12 | 0.31 | 0.26 | 0.22 |