

## **2.1 AMERICAN SAMOA**

### **2.1.1 DATA SOURCES**

This report contains the most recently available information on American Samoa's pelagic fisheries, as compiled from data generated by the Department of Marine and Wildlife Resources (DMWR) through a program established in conjunction with the Western Pacific Fishery Information Network (WPacFIN) and supported in part through funding from the Interjurisdictional Fisheries Act (IFA). Purse seine and non-U.S. vessel landings are not included in this module, but are discussed in general in the international module.

Prior to 1985, only commercial landings were monitored. From October 1985 to the present, data have been collected through the Tutuila and Manu'a boat-based creel survey to include subsistence, recreational, as well as commercial fishing. Surveyors have noted that fishermen may not accurately report the number of fish released at sea, although the troll fishery in American Samoa has never been known to release fish. The Pago Pago Gamefishing Association, a recreation troll fishery, catches and releases blue marlin.

In September 1990, a Commercial Purchase System (receipt book) was instituted requiring all businesses that buy fish commercially in American Samoa, with an exception for the canneries, to submit a copy of their purchase receipts to the DMWR. In January 1996, the National Marine Fisheries Service (NMFS) implemented a federal longline logbook system. All longline fishermen are required to obtain a federal permit and to submit logs containing detailed data on each of their sets and the resulting catch, including the number of hooks set and number of fish released as bycatch. Confidentiality requirements prohibit providing a breakdown of the catch or effort from alia and monohull longline vessels in recent years. Changes to the data collection and analysis methodology have occurred periodically and are described in previous annual reports. No changes to the data collection or analysis were made in 2016, except that the number of vendors participating in the Commercial Purchase System has increased.

Participation (number of boats) is determined through both logbook entries and creel interviews. Effort (number of trips, hooks) is determined by direct reporting for longline trips, but is indirectly calculated for trolling trips, based on total pounds landed (reported), and average hourly catch rate and duration for trip (creel interviews). Since 2009 (the year of the tsunami), only the longline logbook database has been useful in determining the number of active boats. Prior to that, DMWR's boat-based creel survey data were also used to assess whether or not longline vessels were active to include information from alia longline vessels that did not frequent the canneries and exclude alias that exclusively conducted bottomfishing and/or trolling.

DMWR implemented a fuel subsidy program during from 2015 to 2018 which required DMWR to meet fishers at a designated time and location for mandatory surveys in order to receive fuel subsidies. This extended the creel survey schedule and detracted from the random sampling design at other times of the day. The fuel was dispensed to vessel owners including those whom rent their vessels to fishermen. The new program caused change in fishing behavior and affected catch estimates to a certain extent. Generally, more fuel was used and there were longer and more frequent trips, but otherwise, catch per unit effort (CPUE) and species composition were

not affected. There was an increase in the amount of trolling trips and trip length that may have affected the relative amount of pelagic species in the catch.

Average weight (pounds) per fish is calculated directly from creel-weighed fish sampled over the year. In the past, cannery fish weight was determined based on a length to weight conversion from cannery sampling data, since longline boats have been landing their catches gilled and gutted since 1999. However, the cannery sampling program was discontinued in 2015, so those average weight data are no longer available.

There is no cannery sampling data available since 2016. Therefore, WPacFIN used proxies to estimate the weight and value of fish landings for the longline fishery in American Samoa.

For estimated weights, the current summaries are based on the best available average weight data for 2016, which is from DMWR's boat-based creel surveys. It should be noted that the weight of fish from the small boats is somewhat smaller than fish caught on the larger oceangoing vessels, contributing to a somewhat lower weight estimate for the fishery during 2018. Over the course of 2016, the Pacific Island Fisheries Science Center (PIFSC) Fisheries Research and Monitoring Division's (FRMD) International Fisheries Program (IFP) began estimating the average weight of fish kept for the longline fishery from observer data. This alternative source provides trip-level average weights for vessels with observers. These weights will be more representative of the longline fishery, but they will not be available for trips that do not carry observers. The protocol for handling unobserved trips is being developed by IFP, which will provide the data for this report in 2018, but the information is not yet available. It will be provided in the Regional Fishery Management Organization (RFMO) report for US Pacific longline fisheries.

Another item lost with the discontinuation of the longline cannery sampling program by the Pacific Island Regional Office (PIRO) in Pago Pago was data on the proportion of longline fish (by species) sold to the cannery, vs. local market and village/take home (given, not sold). While the cannery buys a much higher volume of fish, their prices are low. The lesser amount of fish sold to the markets and local restaurants garners a higher price. Another portion of the catch is given away or taken home. In the absence of a cannery sampling program in 2016, WPacFIN was had to apply a number of estimates. For the top five cannery species (albacore, skipjack, yellowfin and big eye tuna and wahoo) the assumption of 100% sold to the cannery was applied. For other species also previously sampled at the cannery, for which a large percentage is not sold, proxy values from previous years were applied. The net result of using lower average weights (from boat-based creel) and lower percentages sold to the market (or sold period) is likely to be responsible in part for a decrease in estimated weight and value of the catch sold.

Total landings data cover all fish caught and brought back to shore, whether it enters the commercial market or not. Commercial landings cover the portion of the total landings that was sold both to the canneries and other smaller local business. The difference between total landings and commercial landings is the recreational/subsistence component of the fishery.

This module was prepared by DMWR and WPacFIN, and was reviewed by the Pelagics Plan Team (PPT), Scientific and Statistical Committee (SSC), and the Council.

## **2.1.2 SUMMARY OF AMERICAN SAMOAN PELAGIC FISHERY**

**Landings.** The estimated annual pelagic landings have varied from 2.9 to 11 million lbs. between 2009 to 2019. The 2019 landings were approximately 2.9 million pounds, the lowest recorded and a continuation of the decline from 11 million lbs. in 2010 (Figure 4). Pelagic landings consist mainly of four tuna species – albacore, yellowfin, skipjack, and bigeye – which when combined with other tuna species made up 95% of the total landings. Albacore made up 79% of the tuna species. Wahoo, blue marlin, and swordfish make up most of the non-tuna species landings.

**Longline Effort.** There were 17 vessels known to be fishing in the waters of American Samoa in 2019 according to the PIRO Sustainable Fisheries Division permit program. This was an increase from 13 in 2018. The following number of vessels were active in each class: 9 Class D vessels (> 70 foot), 5 Class C (50 - 60 foot), 0 Class B vessels (40 - 50 foot) and 3 Class A (< 40 foot). The number of active longline boats decreased to 15 in 2017 from 20 in 2016. The 17 vessels that fished in 2019 made 114 trips (averaging 7 trips/vessel), deployed 1,695 sets, (100 sets/vessel) using 4.8 million hooks (Table 5). While the number of boats increased in 2019 from 2018, the effort decreased (trips, sets and hooks), longline hooks set were an all-time low.

**Longline CPUE.** The total pelagic catch rate by all longline vessels decreased by 1.7 fish/1,000 hooks in 2019. The tuna catch rate by longliners also decreased by 1.2 fish/1,000 hooks in 2019 to 16.2 fish/1,000 hooks after relatively stable catch rates from 2015 to 2018 (17.0 to 17.9 fish/1,000 hooks). The catch rate for albacore declined by 1.9 fish/1,000 hooks in 2019.

**Lbs.-Per-Hour Trolling.** Trolling catch rates (lbs./hr) increased slightly in 2019 (24 lbs./hr) from 2018 (23 lbs./hr) and have been increasing since 2017 (14 lbs./hr). Trolling catch rates have fluctuated with peaks in 2011 to 2012 (52 lbs./hr) and 2016 (43 lbs./hr). The catch rates for skipjack have been increasing since 2017 but decreased for yellowfin in 2019 relative to 2018.

**Fish Size.** Since the last year of available data from the cannery sampling program was 2015 average weight-per-fish is not reported for the past four years. Average albacore weight ranged from 38 to 40 lbs. from 2010 to 2015. On the other hand, boat-based creel survey recorded size range of 35 to 43 lbs. from 2013 to 2019. Yellowfin and big-eye tuna weight per fish seemed to decline from 2010 to 2015, 59 to 38 lbs. and 54 to 38 lbs., respectively.

**Revenues [to be further updated].** Commercial landings of tuna species continue to decline, with the 2019 landings reaching an all-time-low of 2.96 million pounds. Tunas accounted for nearly 95% of total pelagic landings with an estimated adjusted revenue of \$4.7 million in 2017. Adjusted price per pound for tuna hovered around \$1.10 per pound from 2010 to 2015 and increased to around \$3 per pound in 2016-17. In 2017, the average albacore price was \$1.16 per pound (whole weight), or \$0.01 per pound higher than that in the previous year. See the Socioeconomics (Section 3.1) section for data on American Samoa pelagic fisheries.

**Bycatch.** There was no recorded bycatch for the troll fishery in 2019 (Table 12). In the longline fishery, around 1.2% of the tuna catch was released. Yellowfin and bigeye were the most released bycatch tuna species at 3.2 and 3.0%, respectively. Conversely, sharks and oilfish had the highest release numbers of non-tunas, with nearly 100% of each species released, (Table 6). In total, only 7% of all pelagic species caught were released. Fish are released for various reasons including quality, handling and storage difficulties, and marketing problems.

### 2.1.3 PLAN TEAM RECOMMENDATIONS

[To be updated]

### 2.1.4 OVERVIEW OF PARTICIPATION – ALL FISHERIES

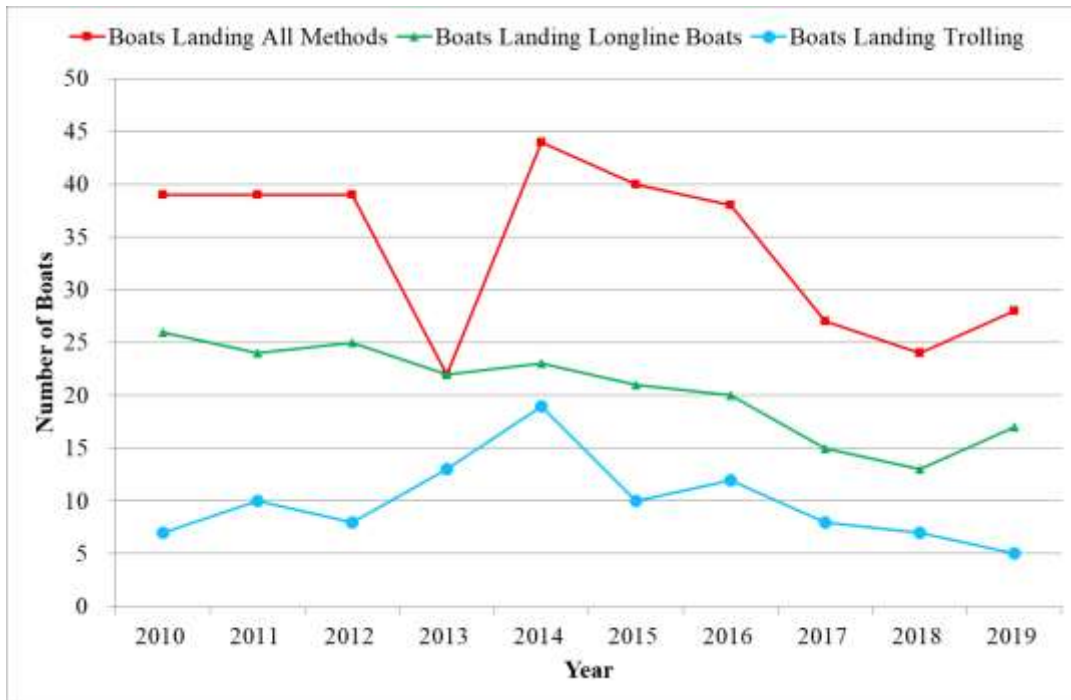


Figure 2. Number of American Samoa boats landing any pelagic species by longlining, trolling, and all methods from 2010-2019

Supporting data shown in Table A-2.

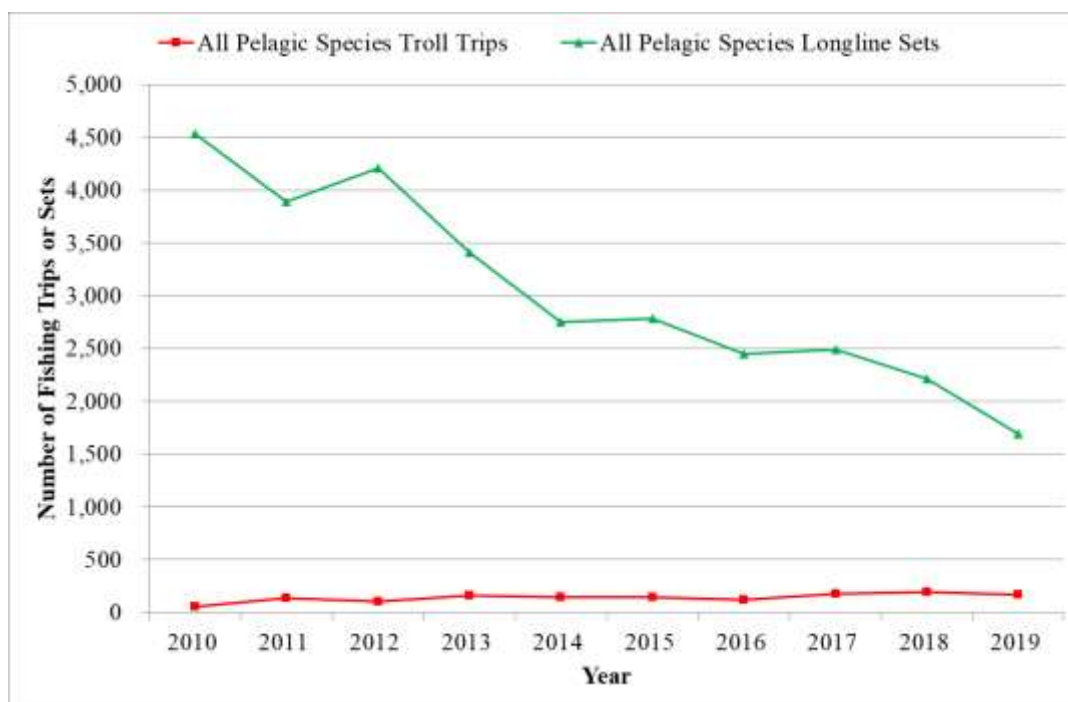


Figure 3. Number of American Samoa fishing trips and sets for pelagics from 2010-2019 Supporting data shown in Table A-3.

### 2.1.5 OVERVIEW OF LANDINGS – ALL FISHERIES

Table 3. 2019 estimated total landings (lbs.) of pelagic species by gear in American Samoa

Species	Longline Pounds	Troll Pounds	Other Pounds	Total Pounds
Skipjack tuna	149,917	12,958	0	162,875
Albacore tuna	2,232,098	0	0	2,232,098
Yellowfin tuna	399,298	3,140	0	402,438
Kawakawa	0	233	63	296
Bigeye tuna	66,547	0	0	66,547
Bluefin tuna	476	0	0	476
Tunas (unknown)	0	0	0	0
<b>TUNAS TOTAL</b>	<b>2,848,336</b>	<b>16,331</b>	<b>63</b>	<b>2,864,730</b>
Mahimahi	3,250	714	75	4,040
Black marlin	0	0	0	0
Blue marlin	62,905	834	0	63,739
Striped marlin	3,509	0	0	3,509
Wahoo	38,555	601	0	39,156
Swordfish	8,128	0	0	8,128
Sailfish	3,758	181	0	3,939
Spearfish	4,324	0	0	4,324

<b>Species</b>	<b>Longline Pounds</b>	<b>Troll Pounds</b>	<b>Other Pounds</b>	<b>Total Pounds</b>
Moonfish	1,185	0	0	1,185
Oilfish	19	0	143	162
Pomfret	554	0	151	706
Pelagic thresher shark	0	0	0	0
Thresher shark	1,357	0	0	1,357
Shark (unknown pelagic)	0	0	0	0
Snake mackerel	0	0	0	0
Bigeye thresher shark	0	0	0	0
Silky shark	0	0	0	0
White tip oceanic shark	0	0	0	0
Blue shark	0	0	0	0
Shortfin mako shark	90	0	0	90
Longfin mako shark	0	0	0	0
Billfishes (unknown)	0	0	0	0
<b>NON-TUNA PMUS TOTAL</b>	<b>127,634</b>	<b>2,330</b>	<b>369</b>	<b>130,335</b>
Pelagic fishes (unknown)	40	0	0	40
Double-lined mackerel	0	0	0	0
Mackerel	0	9	0	9
Long-jawed Mackerel	0	0	0	0
Barracudas	784	0	10	795
Great barracuda	0	0	118	118
Small barracudas	0	0	0	0
Rainbow runner	0	24	57	81
Dogtooth tuna	0	336	832	1,167
<b>OTHER PELAGICS TOTAL</b>	<b>824</b>	<b>369</b>	<b>1,017</b>	<b>2,210</b>
<b>TOTAL PELAGICS</b>	<b>2,976,794</b>	<b>19,030</b>	<b>1,449</b>	<b>2,997,275</b>

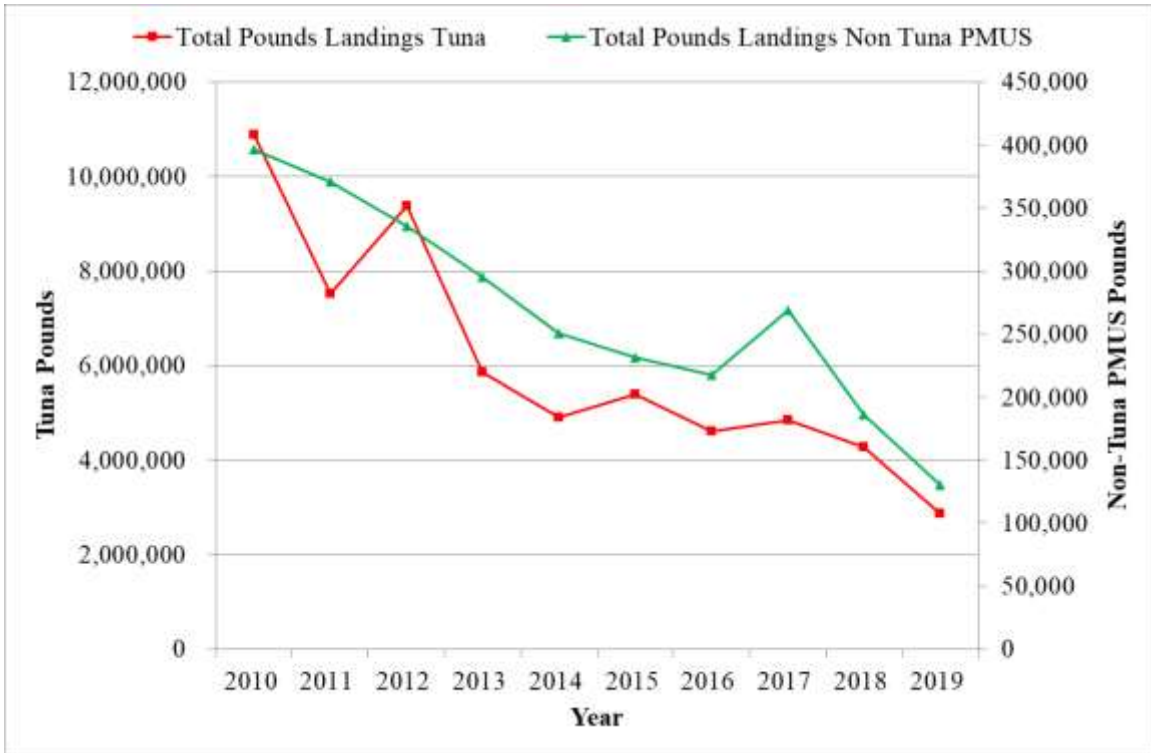


Figure 4. American Samoa estimated total landings of tuna and non-tuna PMUS from 2010-2019 Supporting data shown in Table A-4.

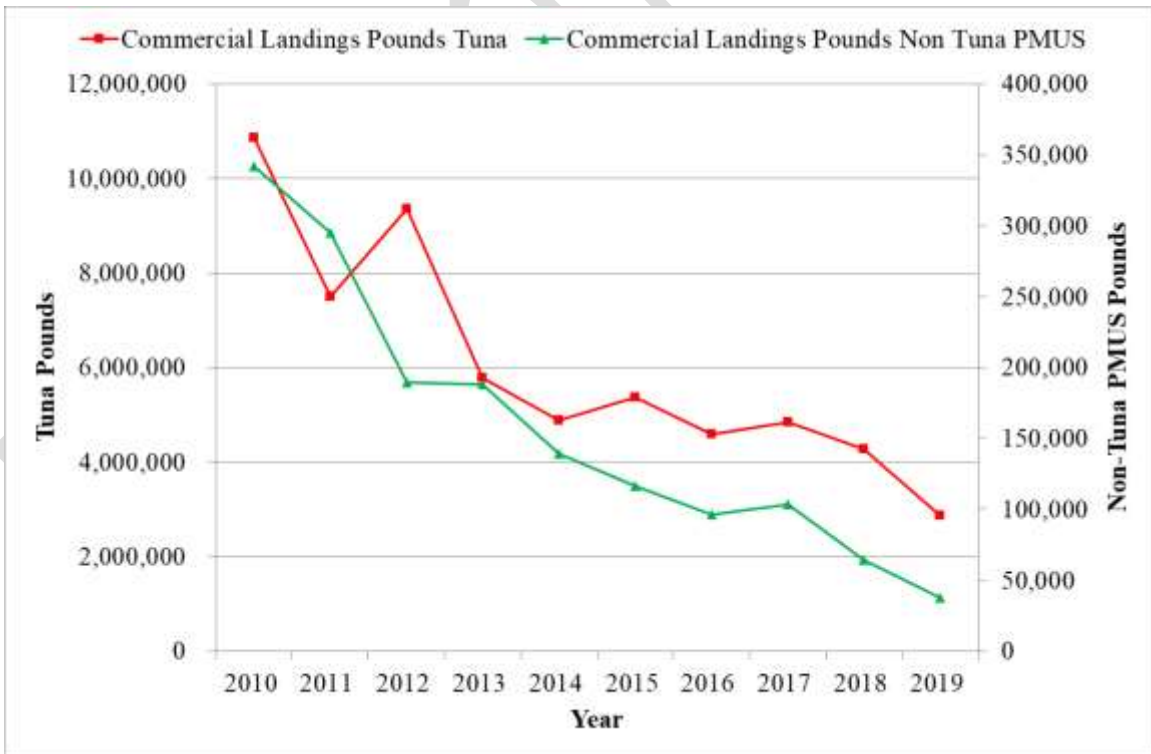


Figure 5. American Samoa commercial landings of tuna and non-tuna PMUS from 2010-2019 Supporting data shown in Table A-5.

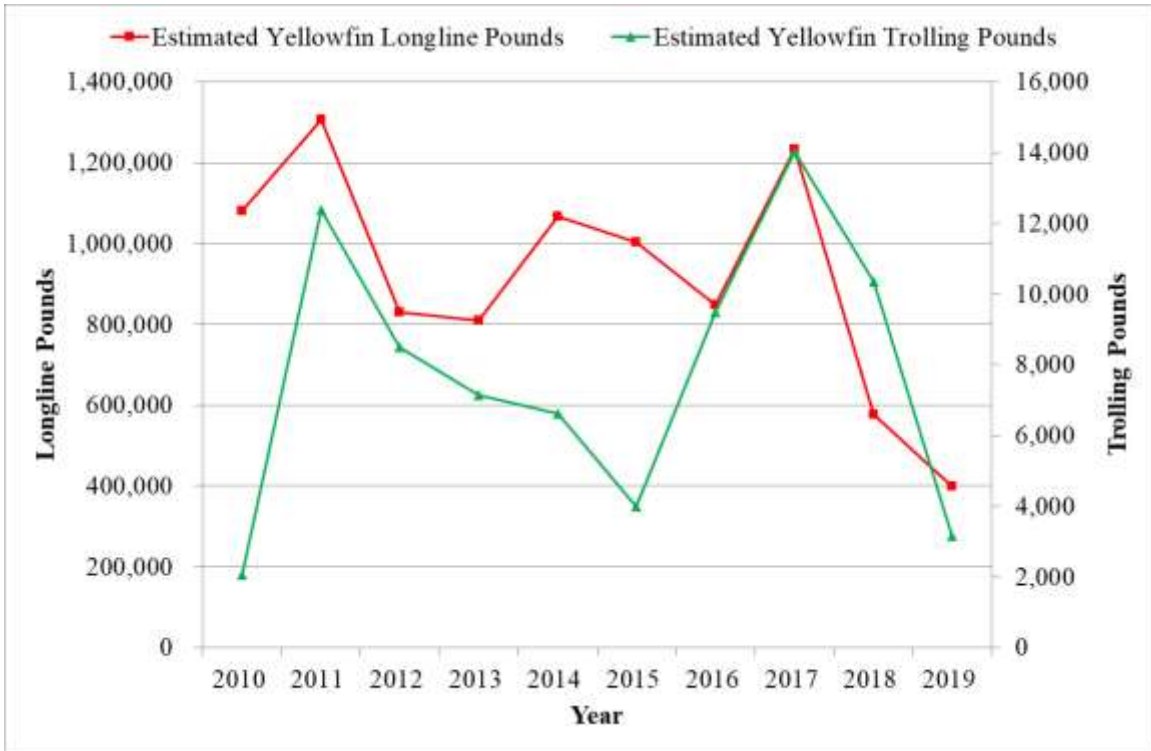


Figure 6. American Samoa annual estimated total landings of yellowfin tuna from 2010-2019 Supporting data shown in Table A-6.

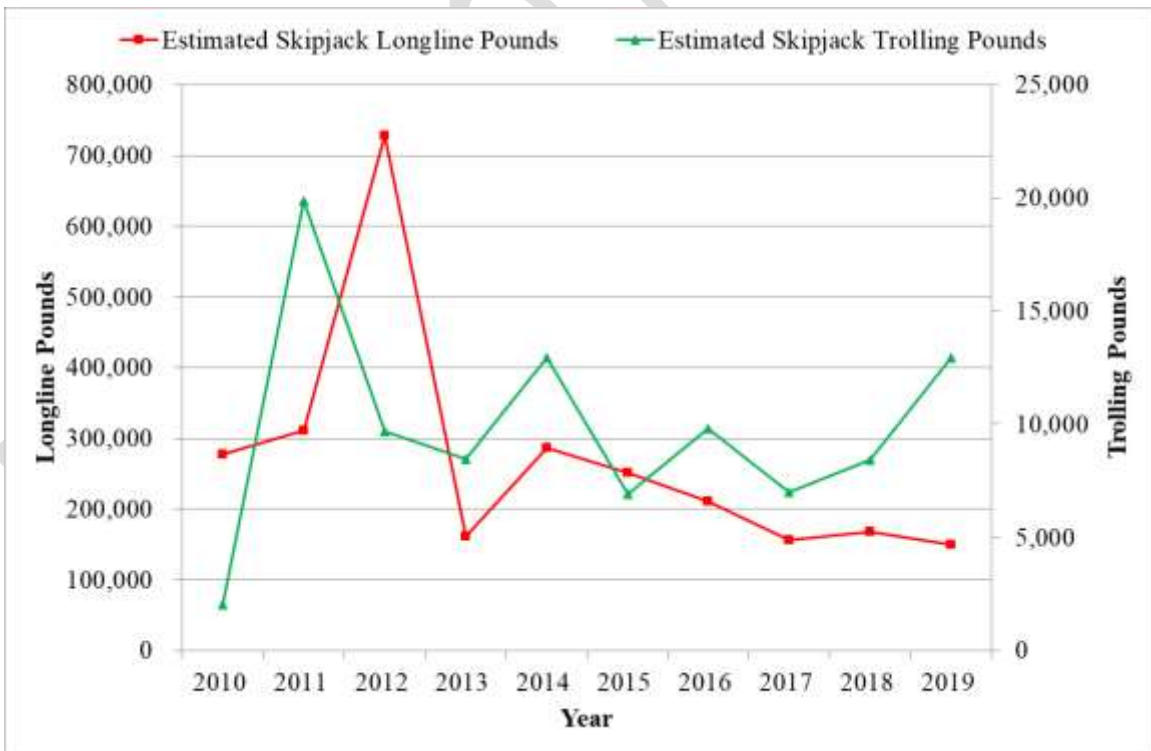


Figure 7. American Samoa annual estimated total landings of skipjack tuna from 2010-2019 Supporting data shown in Table A-7.



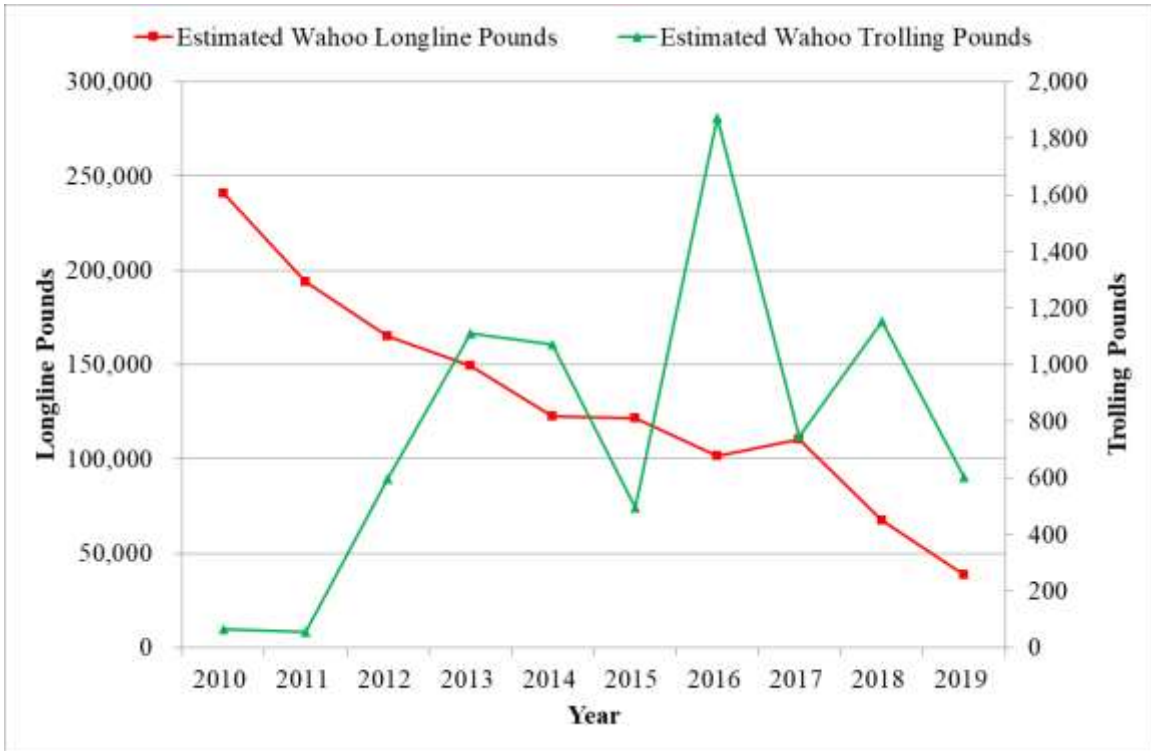


Figure 8. American Samoa annual estimated total landings of wahoo from 2010-2019. An unrepresentative amount of wahoo were caught trolling one day in 2016. Supporting data shown in Table A-8.

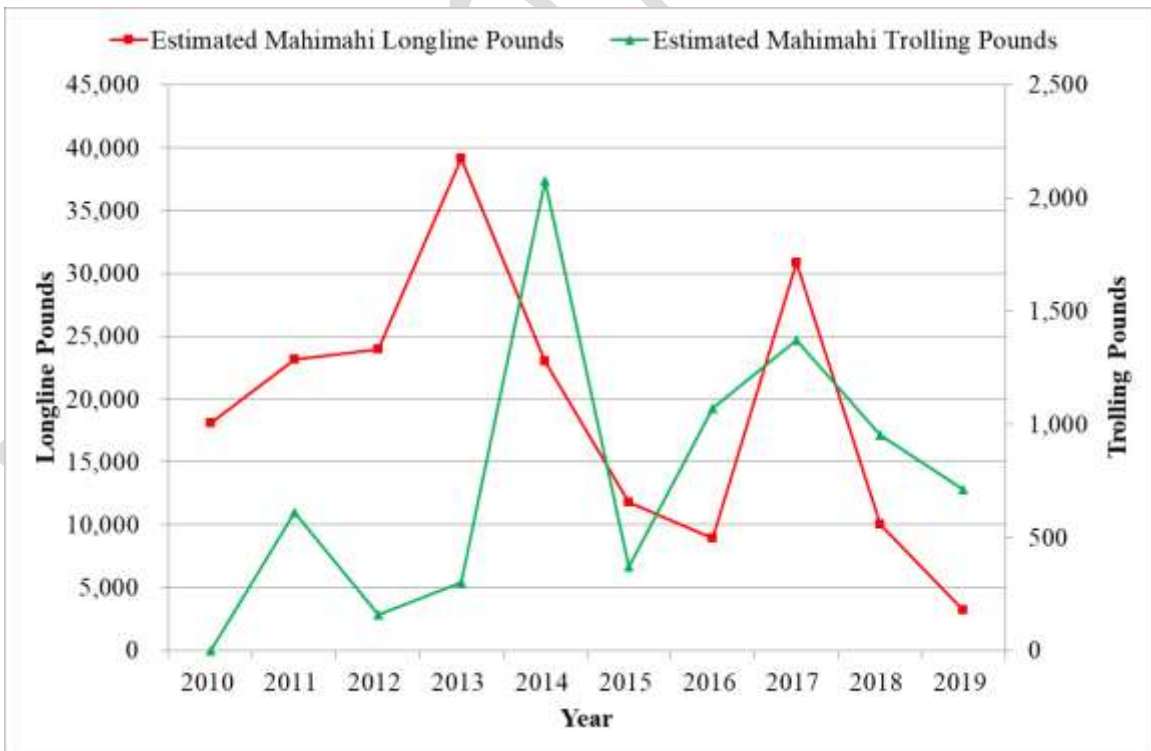


Figure 9. American Samoa annual estimated total landings of mahimahi from 2010-2019. Supporting data shown in Table A-9.

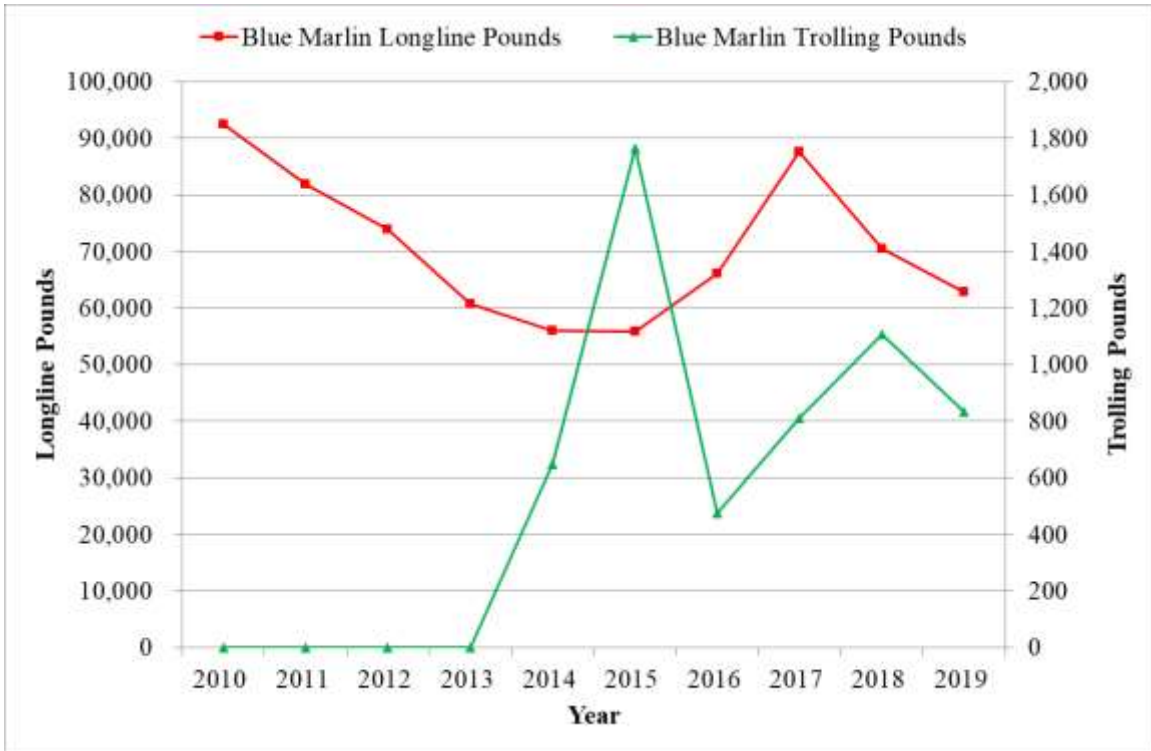


Figure 10. American Samoa annual estimated total landings of Blue Marlin from 2010-2019 Supporting data shown in Table A-10.

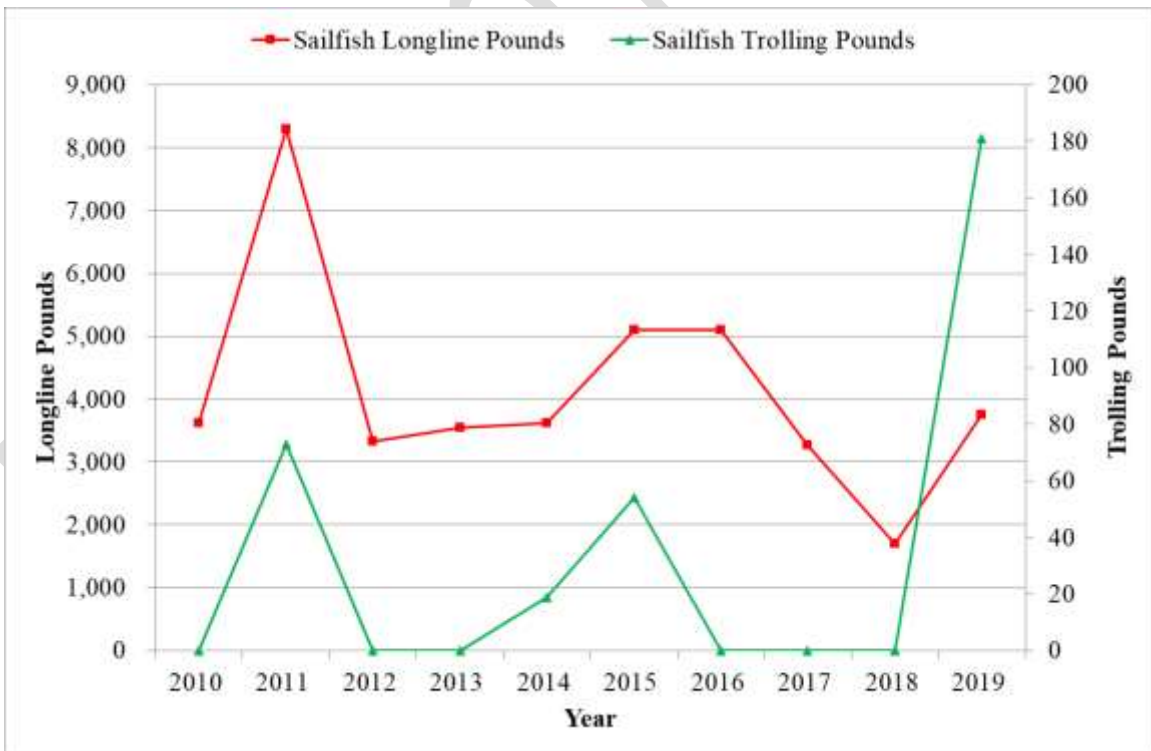


Figure 11. American Samoa annual estimated total landings of Sailfish from 2010-2019 Supporting data shown in Table A-11.

**2.1.6 AMERICAN SAMOA LONGLINE PARTICIPATION, EFFORT, LANDINGS, BYCATCH, AND CPUE**

Table 4. Number of permitted and active longline fishing vessels by size class from 2009-2018

Year	Class A Permits	Class A Active	Class B Permits	Class B Active	Class C Permits	Class C Active	Class D Permits	Class D Active
2010	12	1	0	0	12	7	26	18
2011	12	1	1	0	12	8	27	15
2012	5	3	5	0	11	8	27	14
2013	5	1	5	0	11	7	26	14
2014	0	2	0	0	0	7	0	14
2015	0	3	0	0	0	6	0	12
2016	7	2	4	0	12	5	27	13
2017	7	1	3	0	11	5	27	9
2018	0	1	0	0	0	4	0	8
2019	0	3	0	0	0	5	0	9

Note: These data are used for Figure 12 that follows. Classes A and B include alia vessels, whereas Classes C and D typically include larger monohull vessels fishing in the Southern Pacific Ocean. Dual-permitted vessels are not included.

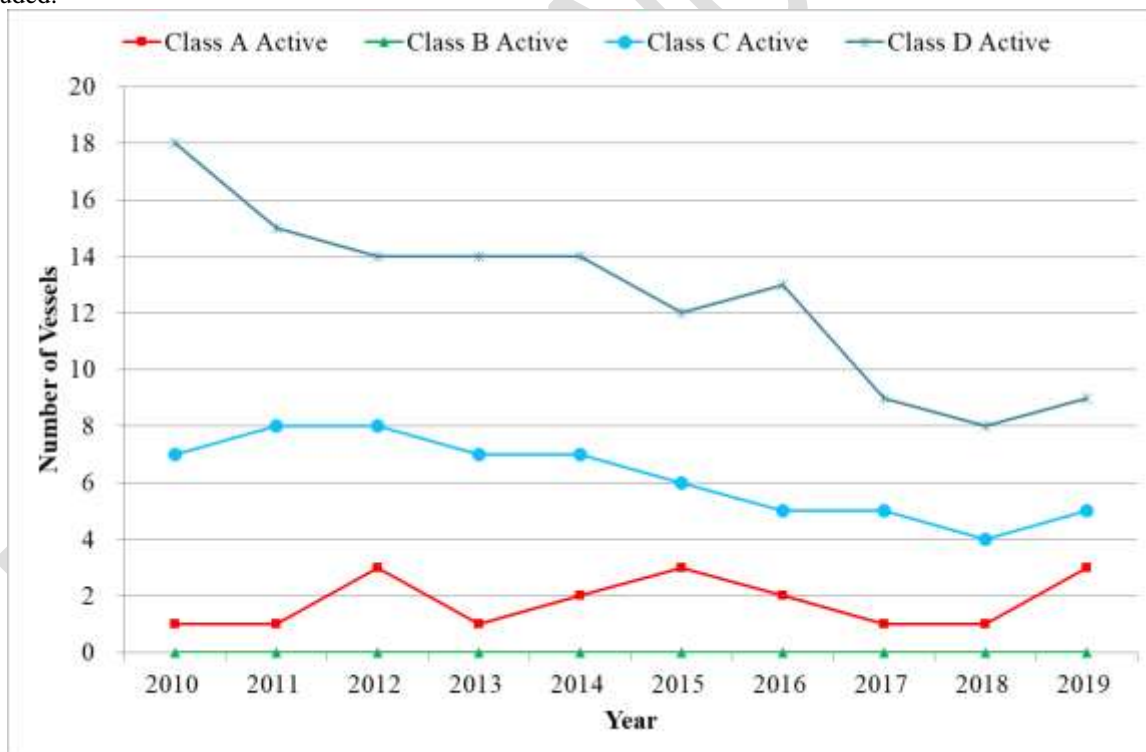


Figure 11. Number of active longline fishing vessels in size classes A (< 40 ft.), B (40-50 feet), C (51-70 feet) and D (> 70 ft.) from 2010-2019

Table 5. Longline effort by American Samoan vessels during 2019

Effort Type	All Vessels
Boats	17
Trips	114
Sets	1,695
1000 Hooks	4,769
Lightsticks	0

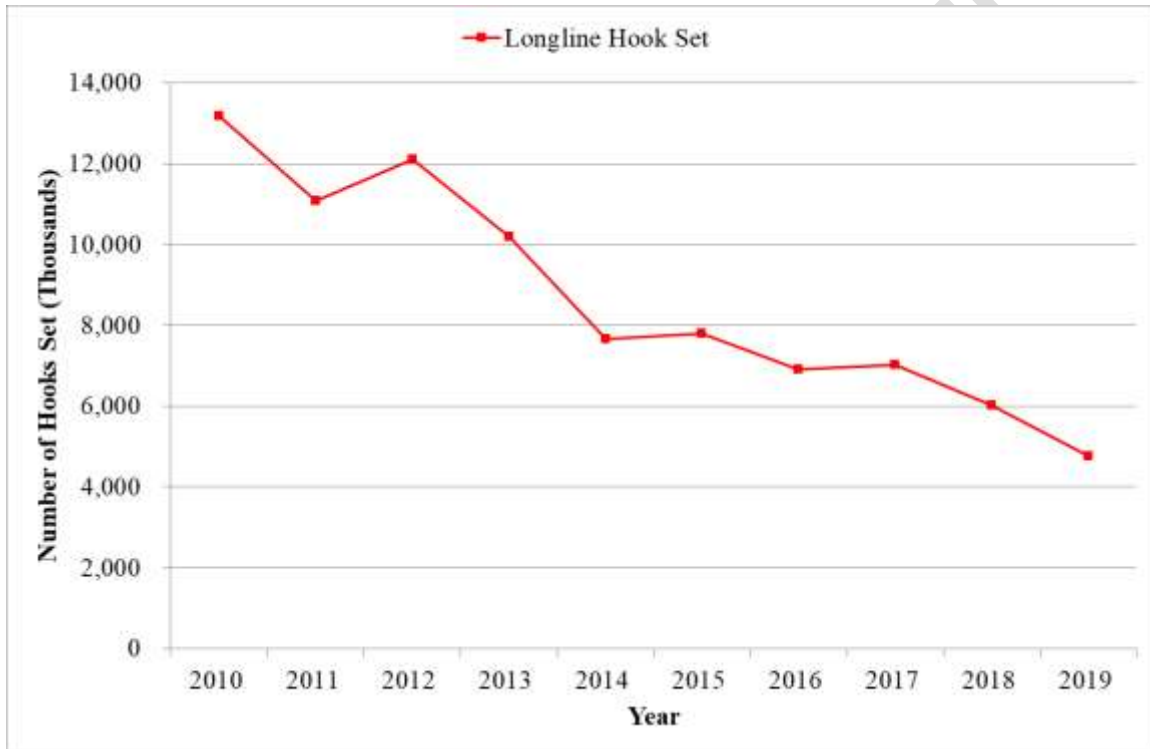


Figure 13. Thousands of American Samoa longline hooks set from federal logbook data from 2010-2019

Supporting data shown in Table A-12.

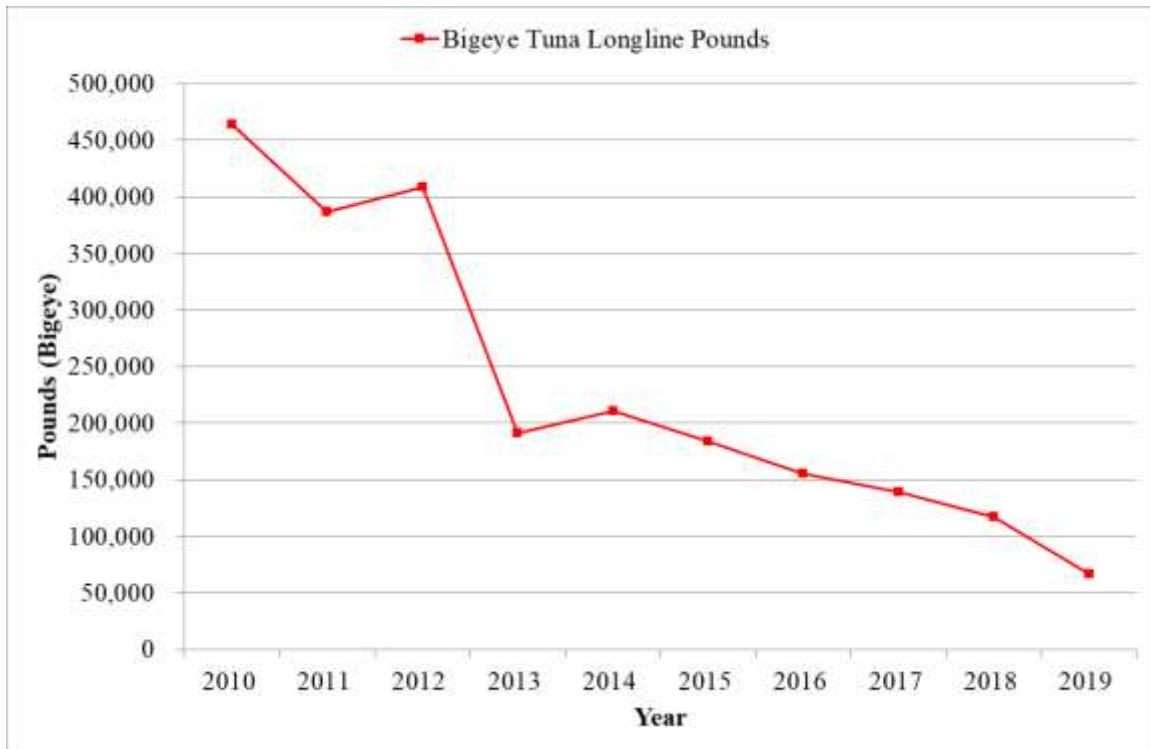


Figure 14. American Samoa estimated total landings of bigeye by longlining from 2010-2019 Supporting data shown in Table A-13.

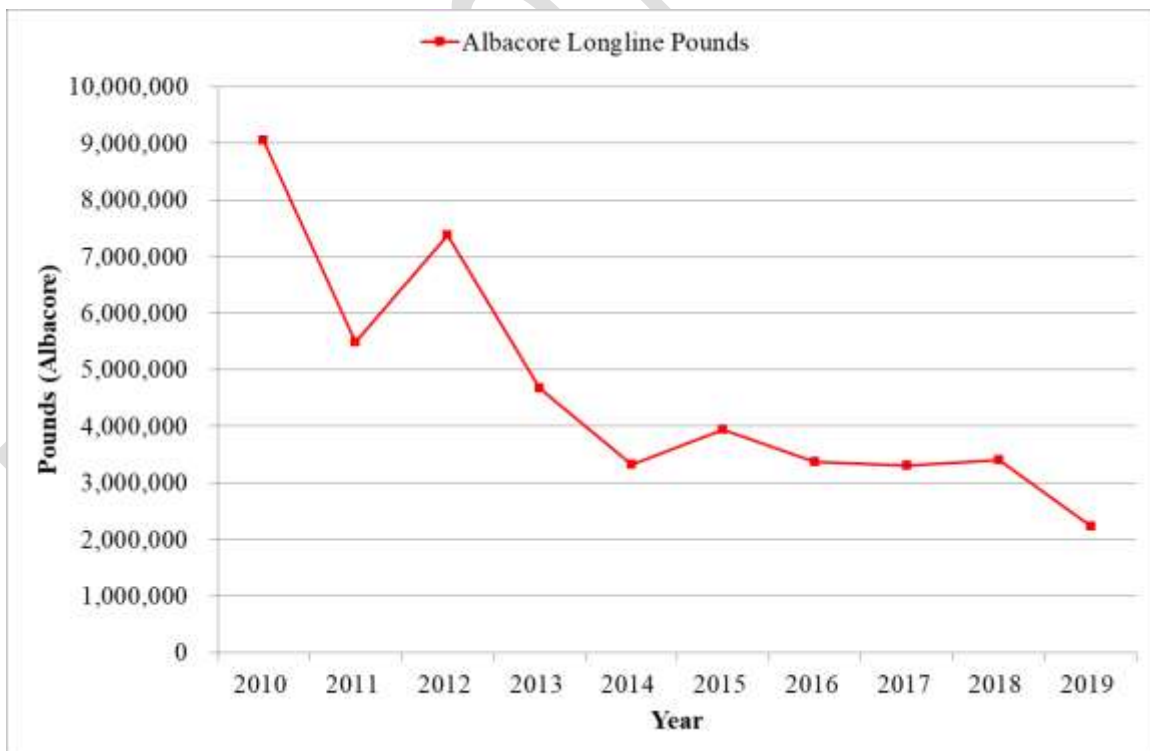


Figure 15. American Samoa estimated total landings of albacore by longlining from 2010-2019 Supporting data shown in Table A-14.

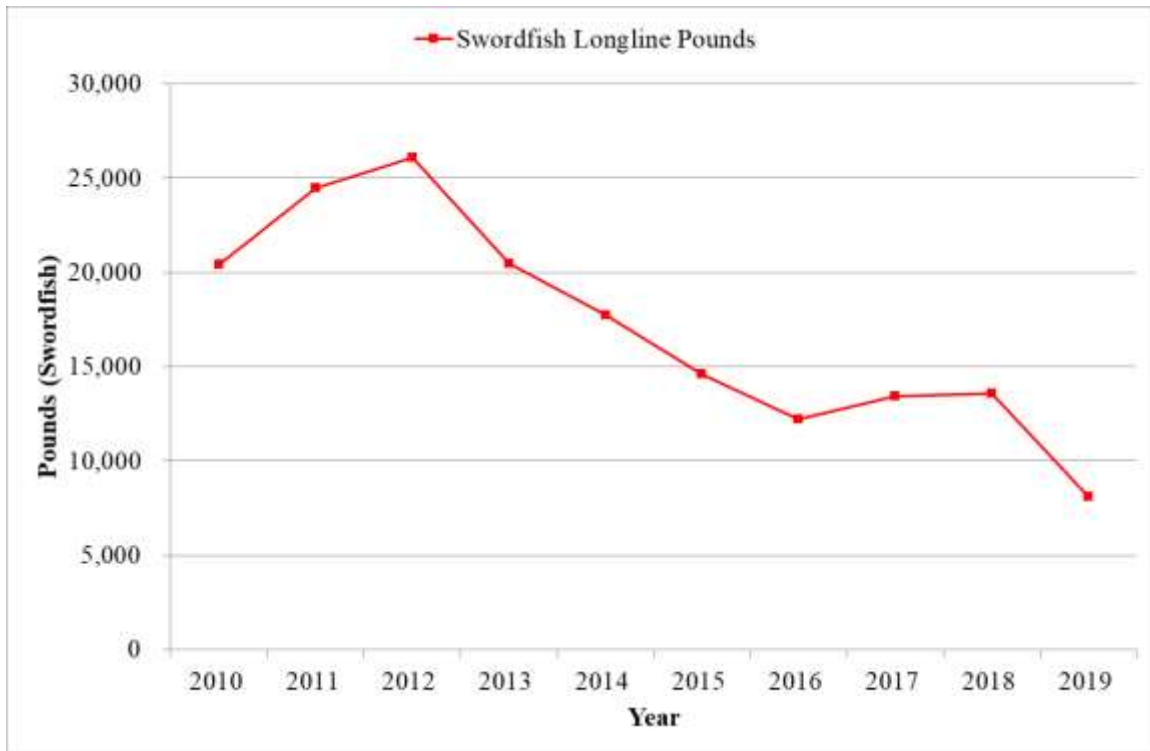


Figure 16. American Samoa estimated total landings of swordfish by longlining from 2010-2019 Supporting data shown in Table A-15.

Table 6. Number of fish kept, released, and percent released for all American Samoa longline vessels in 2019

Species	Number Kept	Number Released	Total Caught	Percent Released
Skipjack tuna	11,004	138	11,142	1.2
Albacore tuna	54,888	477	55,365	0.9
Yellowfin tuna	8,764	293	9,057	3.2
Kawakawa	0	0	0	0.0
Bigeye tuna	1,742	54	1,796	3.0
Bluefin tuna	2	0	2	0.0
Tunas (unknown)	0	0	0	0.0
<b>TUNAS TOTAL</b>	<b>76,400</b>	<b>962</b>	<b>77,362</b>	<b>1.2</b>
Mahimahi	150	2	152	1.3
Black marlin	0	0	0	0.0
Blue marlin	498	74	572	12.9
Striped marlin	51	4	55	7.3
Wahoo	1,935	30	1,965	1.5
Swordfish	80	114	194	58.8
Sailfish	53	27	80	33.8

Spearfish	94	119	213	55.9
Moonfish	24	21	45	46.7
Oilfish	1	1,071	1,072	99.9
Pomfret	63	371	434	85.5
Pelagic thresher shark	0	0	0	0.0
Thresher shark	7	179	186	96.2
Shark (unknown pelagic)	0	33	33	100.0
Snake mackerel	0	0	0	0.0
Bigeye thresher shark	0	0	0	0.0
Silky shark	0	714	714	100.0
White tip oceanic shark	0	505	505	100.0
Blue shark	0	1,626	1,626	100.0
Shortfin mako shark	1	151	152	99.3
Longfin mako shark	0	0	0	0.0
Billfishes (unknown)	1	1	2	50.0
<b>NON-TUNA PMUS TOTAL</b>	<b>2,958</b>	<b>5,042</b>	<b>8,000</b>	<b>63.0</b>
Pelagic fishes (unknown)	2	11	13	84.6
Double-lined mackerel	0	0	0	0.0
Mackerel	0	0	0	0.0
Long-jawed Mackerel	0	0	0	0.0
Barracudas	70	5	75	6.7
Great barracuda	0	0	0	0.0
Small barracudas	0	0	0	0.0
Rainbow runner	0	0	0	0.0
Dogtooth tuna	0	0	0	0.0
<b>OTHER PELAGICS TOTAL</b>	<b>72</b>	<b>16</b>	<b>88</b>	<b>18.2</b>
<b>TOTAL PELAGICS</b>	<b>79,430</b>	<b>6,020</b>	<b>85,450</b>	<b>7.0</b>

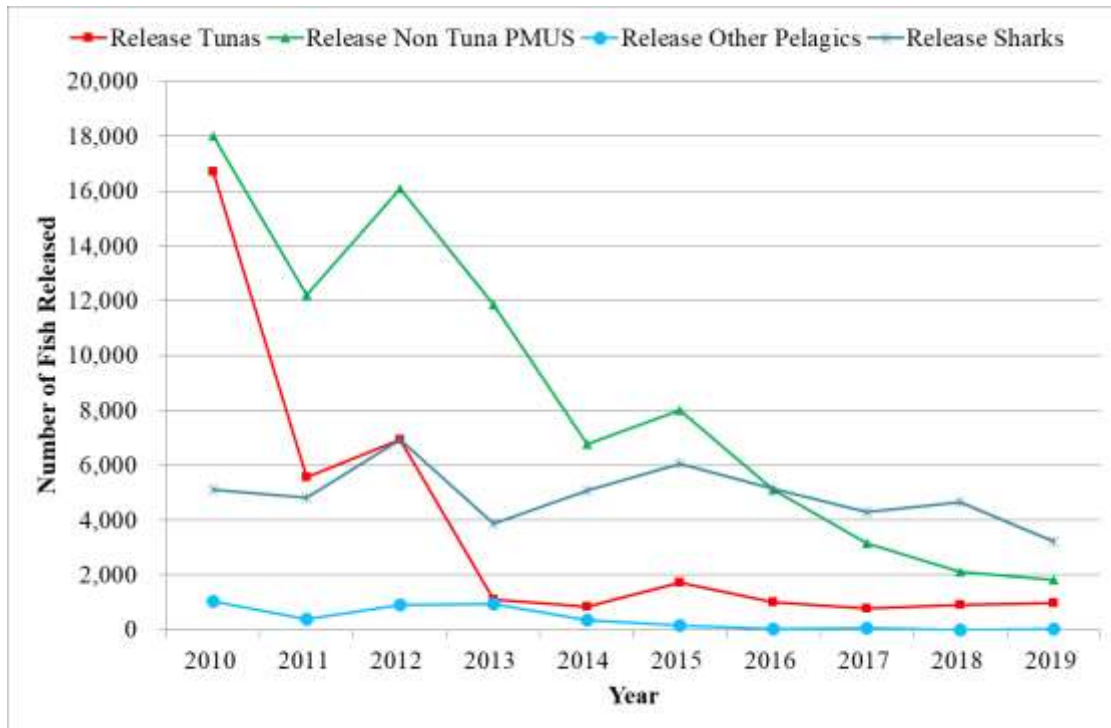


Figure 17. Number of fish released by American Samoa longline vessels from 2010-2019  
Supporting data shown in Table A-16.

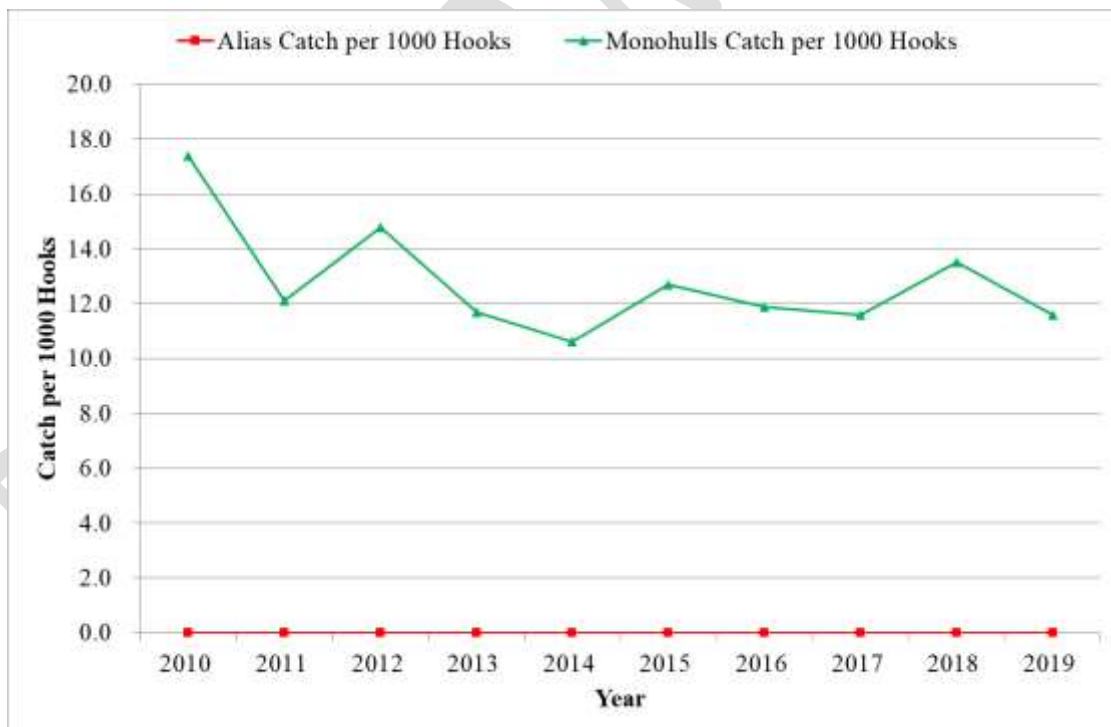


Figure 18. American Samoa albacore catch/1,000 hooks by monohull vessels from longline logbook data from 2010-2019

Note: There were fewer than three alias reporting, so alia are not included. Supporting data shown in Table A-17.



Table 7. American Samoa catch/1,000 hooks for alia vessels from 1996-1998

Species	Alia 1996	Alia 1997	Alia 1998
Skipjack tuna	0.1	1.2	3.7
Albacore tuna	40.6	32.8	26.6
Yellowfin tuna	6.5	2.7	2.2
Bigeye tuna	1.3	0.3	0.3
<b>TUNAS TOTAL</b>	<b>48.5</b>	<b>37.0</b>	<b>32.8</b>
Mahimahi	2.3	2.2	1.7
Blue marlin	0.9	0.7	0.5
Wahoo	0.8	0.9	2.2
Swordfish	0.0	0.1	0.0
Sailfish	0.2	0.2	0.1
<b>NON-TUNA PMUS TOTAL</b>	<b>4.2</b>	<b>4.3</b>	<b>4.6</b>
Pelagic fishes (unknown)	0.0	0.0	0.2
<b>OTHER PELAGICS TOTAL</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>
<b>TOTAL PELAGICS</b>	<b>52.7</b>	<b>41.3</b>	<b>37.6</b>

Table 8. American Samoa catch/1,000 hooks for two types of longline vessels from 1999-2002

Species	Alia 1999	Monohull 1999	Alia 2000	Monohull 2000	Alia 2001	Monohull 2001	Alia 2002	Monohull 2002
Skipjack tuna	5.0	4.5	2.0	1.7	3.1	2.1	6.0	4.9
Albacore tuna	18.8	14.8	19.8	28.0	27.3	32.9	17.2	25.8
Yellowfin tuna	6.7	2.1	6.2	3.1	3.3	1.4	7.1	1.3
Bigeye tuna	0.7	0.5	0.4	1.0	0.6	1.0	0.6	0.9
<b>TUNAS TOTAL</b>	<b>31.2</b>	<b>21.9</b>	<b>28.4</b>	<b>33.8</b>	<b>34.3</b>	<b>37.4</b>	<b>30.9</b>	<b>32.9</b>
Mahimahi	2.2	0.3	1.7	0.4	3.4	0.5	4.0	0.6
Black marlin	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Blue marlin	0.5	0.1	0.5	0.2	0.4	0.2	0.2	0.3
Striped marlin	0.0	0.2	0.1	0.3	0.0	0.1	0.1	0.0
Wahoo	2.1	1.2	1.2	1.0	1.5	0.6	2.7	1.0
Swordfish	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0
Sailfish	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Spearfish	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Moonfish	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Oilfish	0.0	0.6	0.0	0.1	0.0	0.2	0.0	0.5
Pomfret	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.1
<b>NON-TUNA</b>	<b>5.1</b>	<b>3.1</b>	<b>3.7</b>	<b>2.5</b>	<b>5.6</b>	<b>1.8</b>	<b>7.3</b>	<b>2.6</b>

Species	Alia 1999	Monohull 1999	Alia 2000	Monohull 2000	Alia 2001	Monohull 2001	Alia 2002	Monohull 2002
<b>PMUS TOTAL</b>								
Barracudas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
<b>OTHER PELAGICS TOTAL</b>	<b>0.3</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.4</b>
<b>TOTAL PELAGICS</b>	<b>36.6</b>	<b>25.2</b>	<b>32.1</b>	<b>36.3</b>	<b>39.9</b>	<b>39.2</b>	<b>38.2</b>	<b>35.9</b>

Table 9. American Samoa catch/1,000 hooks for two types of longline vessels from 2003-2005

Species	Alia 2003	Monohull 2003	Alia 2004	Monohull 2004	Alia 2005	Monohull 2005
Skipjack tuna	4.7	2.9	3.0	3.9	1.0	2.7
Albacore tuna	17.3	16.4	13.7	12.9	10.3	17.4
Yellowfin tuna	5.9	2.0	8.8	3.2	7.0	2.6
Bigeye tuna	1.6	1.1	0.8	1.3	1.0	0.9
<b>TUNAS TOTAL</b>	<b>29.5</b>	<b>22.4</b>	<b>26.3</b>	<b>21.3</b>	<b>19.3</b>	<b>23.6</b>
Mahimahi	2.2	0.4	2.1	0.2	2.0	0.3
Blue marlin	0.2	0.2	0.1	0.2	0.2	0.2
Striped marlin	0.0	0.0	0.1	0.0	0.1	0.0
Wahoo	1.8	1.1	3.0	1.6	2.3	1.4
Swordfish	0.1	0.0	0.1	0.0	0.1	0.0
Sailfish	0.1	0.0	0.0	0.1	0.1	0.1
Spearfish	0.1	0.0	0.0	0.1	0.0	0.0
Moonfish	0.1	0.1	0.1	0.1	0.1	0.1
Oilfish	0.3	0.5	0.0	0.7	0.0	0.3
Pomfret	0.1	0.1	0.0	0.1	0.0	0.1
<b>NON-TUNA PMUS TOTAL</b>	<b>5.0</b>	<b>2.4</b>	<b>5.5</b>	<b>3.1</b>	<b>4.9</b>	<b>2.5</b>
Pelagic fishes (unknown)	0.2	0.2	0.0	0.1	0.0	0.1
<b>OTHER PELAGICS TOTAL</b>	<b>0.2</b>	<b>0.2</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>
<b>TOTAL PELAGICS</b>	<b>34.7</b>	<b>25.0</b>	<b>31.8</b>	<b>24.5</b>	<b>24.2</b>	<b>26.2</b>

Table 10. American Samoa Catch/1,000 Hooks for all vessels from 2006-2011

Species	All Vessels 2006	All Vessels 2007	All Vessels 2008	All Vessels 2009	All Vessels 2010	All Vessels 2011
Skipjack tuna	3.2	2.3	2.4	2.3	2.4	2.5

Albacore tuna	18.4	18.4	14.2	14.8	17.4	12.1
Yellowfin tuna	1.6	1.9	1.0	1.1	1.8	2.0
Bigeye tuna	0.9	0.9	0.5	0.6	0.8	0.7
<b>TUNAS TOTAL</b>	<b>24.1</b>	<b>23.5</b>	<b>18.1</b>	<b>18.8</b>	<b>22.4</b>	<b>17.3</b>
Mahimahi	0.4	0.1	0.1	0.2	0.1	0.1
Blue marlin	0.2	0.2	0.2	0.2	0.2	0.2
Wahoo	1.5	1.0	0.7	1.0	1.0	0.9
Swordfish	0.1	0.0	0.0	0.0	0.0	0.0
Sailfish	0.1	0.0	0.0	0.0	0.0	0.0
Spearfish	0.1	0.0	0.1	0.1	0.1	0.1
Oilfish	0.5	0.5	0.4	0.5	0.6	0.6
Pomfret	0.0	0.1	0.1	0.1	0.1	0.1
<b>NON-TUNA PMUS TOTAL</b>	<b>2.9</b>	<b>2.2</b>	<b>2.0</b>	<b>2.5</b>	<b>2.5</b>	<b>2.4</b>
Pelagic fishes (unknown)	0.0	0.0	0.0	0.0	0.1	0.0
<b>OTHER PELAGICS TOTAL</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>
<b>TOTAL PELAGICS</b>	<b>27.0</b>	<b>25.7</b>	<b>20.1</b>	<b>21.3</b>	<b>25.0</b>	<b>19.7</b>

Table 11. American Samoa Catch/1,000 Hooks for all types of longline vessels from 2013-2017

Species	All Vessels 2012	All Vessels 2013	All Vessels 2014	All Vessels 2015	All Vessels 2016	All Vessels 2017
Skipjack tuna	4.3	1.1	2.5	2.0	2.0	1.5
Albacore tuna	14.8	11.7	10.6	12.7	11.9	11.6
Yellowfin tuna	1.2	1.9	2.5	2.6	2.6	3.7
Bigeye tuna	0.6	0.4	0.7	0.6	0.5	0.4
<b>TUNAS TOTAL</b>	<b>20.9</b>	<b>15.1</b>	<b>16.3</b>	<b>17.9</b>	<b>17.0</b>	<b>17.2</b>
Mahimahi	0.1	0.2	0.2	0.1	0.1	0.2
Blue marlin	0.1	0.1	0.1	0.1	0.1	0.1
Wahoo	0.7	0.7	0.7	0.7	0.7	0.7
Spearfish	0.1	0.1	0.1	0.1	0.0	0.0
Moonfish	0.1	0.0	0.0	0.0	0.0	0.0
Oilfish	0.8	0.7	0.6	0.8	0.6	0.3
Pomfret	0.1	0.1	0.1	0.1	0.1	0.1
Thresher shark	0.0	0.0	0.0	0.0	0.1	0.1
Silky shark	0.0	0.0	0.1	0.1	0.1	0.1
White tip oceanic shark	0.1	0.1	0.1	0.1	0.1	0.1
Blue shark	0.4	0.2	0.4	0.5	0.5	0.4
Shortfin mako shark	0.0	0.0	0.0	0.1	0.0	0.0

Species	All Vessels 2012	All Vessels 2013	All Vessels 2014	All Vessels 2015	All Vessels 2016	All Vessels 2017
<b>NON-TUNA PMUS TOTAL</b>	<b>2.5</b>	<b>2.2</b>	<b>2.4</b>	<b>2.7</b>	<b>2.4</b>	<b>2.1</b>
Pelagic fishes (unknown)	0.1	0.1	0.0	0.0	0.0	0.0
<b>OTHER PELAGICS TOTAL</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>TOTAL PELAGICS</b>	<b>23.5</b>	<b>17.4</b>	<b>18.7</b>	<b>20.6</b>	<b>19.4</b>	<b>19.3</b>

Table 10. American Samoa Catch/1,000 Hooks for all types of longline vessels from 2018-2019

Species	All Vessels 2018	All Vessels 2019
Skipjack tuna	1.8	2.3
Albacore tuna	13.5	11.6
Yellowfin tuna	1.7	1.9
Bigeye tuna	0.4	0.4
<b>TUNAS TOTAL</b>	<b>17.4</b>	<b>16.2</b>
Mahimahi	0.1	0.0
Blue marlin	0.1	0.1
Wahoo	0.5	0.4
Oilfish	0.3	0.2
Pomfret	0.0	0.1
Thresher shark	0.1	0.0
Silky shark	0.1	0.1
White tip oceanic shark	0.1	0.1
Blue shark	0.5	0.3
<b>NON-TUNA PMUS TOTAL</b>	<b>1.8</b>	<b>1.3</b>
<b>TOTAL PELAGICS</b>	<b>19.2</b>	<b>17.5</b>

**2.1.7 AMERICAN SAMOA TROLLING BYCATCH AND CPUE**

Data for participation, effort, landings, and revenue are found in previous sections of this chapter. Statistics summarizing bycatch for the American Samoan trolling fishery are shown in (Table 11).

Table 11. American Samoa 2019 trolling bycatch summary (released fish)

Year	Release Alive	Release Injured	Release Unknown	Total Bycatch	Total Catch	Percent Bycatch	Bycatch Interview	Total Interview	Percent Bycatch Interview
2019	0	0	0	0	648	0.0	0	49	0.0

Notes: “Catch” is the total number of fish counted and estimated in interviews (Tutuila & Manu’a islands) for trolling method. Bycatch information is calculated from raw interview data and represents the % of fish caught or % of interviews (trolling trips) with bycatch.

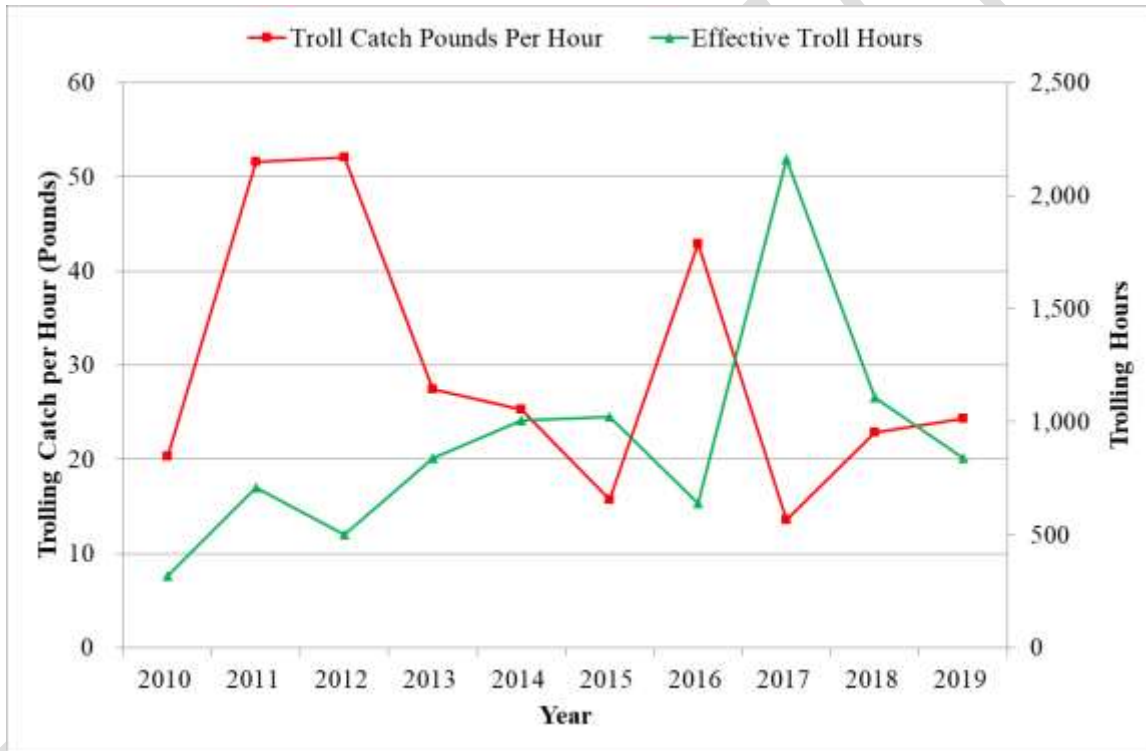


Figure 19. American Samoa pelagic catch-per-hour for trolling and number of trolling hours from 2010-2019

Supporting data shown in Table A-18.

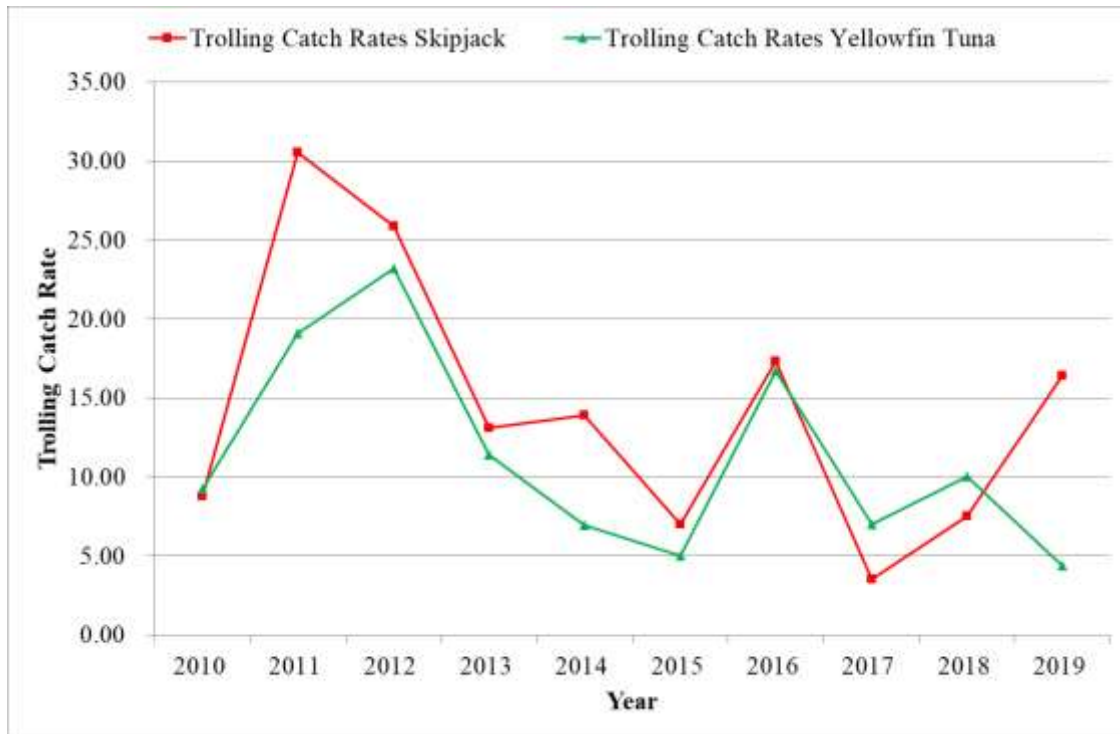


Figure 20. American Samoa trolling CPUE for skipjack and yellowfin tuna from 2010-2019  
 Supporting data shown in Table A-19.

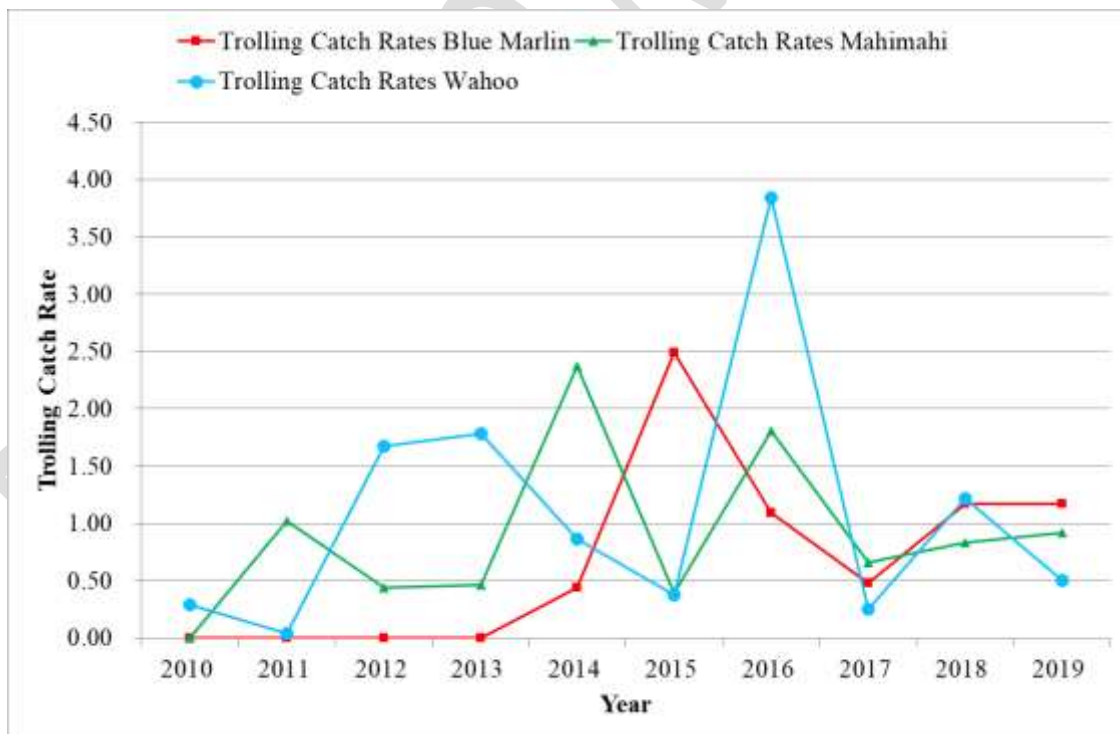


Figure 21. American Samoa trolling CPUE for blue marlin, mahimahi, and wahoo from 2010-2019  
 Supporting data shown in Table A-20.