# PIFSC Report on the Hawaii-based Limited-access Longline Fishery from 1 January to 31 December 2015<sup>1</sup>

Fisheries Research and Monitoring Division Pacific Islands Fisheries Science Center

The following tables represent effort, retained catch (kept), and discards as reported on longline logsheets for the Hawaii-based limited-access longline fishery. To satisfy confidentiality RFMO reporting standards, data from the California-based longline fishery are also included in this report. The following figures represent annual data for effort, catch (kept), and catch-per-unit-effort (CPUE) from 2000 to 2015. Effort and catch effort statistics are based on date of longline haul. Effort and catch statistics are based on logbook data submitted to the PIFSC, FRMD and represent an Oracle table LLDS\_REPORT\_STATS\_HICA database extraction done on March 1, 2016.

**Table 1.** Annual summary report of fishing effort and catch statistics for U.S. longline vessels based in Hawaii and California, as derived from NMFS Western Pacific Daily Longline Fishing Log records. Catch and effort statistics are based on date of longline haul. Data Source: PIFSC Information Management System, Longline Logbook Data.

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Time Period 1 January - 31 December, 2015

Set Types All Sets Fishing Area All Areas Number of vessels active 142
Number of trips (partial or completed) 1,513
Number of sets 19,579
Number of hooks set 48,725,247

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 hooks
PMUS				
Billfish PMUS				
Blue marlin	7,563	7,478	85	0.16
Striped marlin	13,385	13,242	143	0.27
Shortbill spearfish	17,948	17,726	222	0.37
Swordfish	20,139	18,442	1,697	0.41
Other billfishes	607	601	6	0.01
Total	59,642	57,489	2,153	1.22
Shark PMUS				
Blue shark	78,457	0	78,457	1.61
Mako sharks	5,018	697	4,321	0.10
Thresher sharks	15,025	72	14,953	0.31
Oceanic whitetip shark	1,047	2	1,045	0.02
Silky shark	146	0	146	0.00
Other Sharks	478	0	478	0.01
Total	100,171	771	99,400	2.06
Tuna PMUS				
Albacore	10,445	10,407	38	0.21
Bigeye tuna	230,592	227,100	3,492	4.73
Yellowfin tuna	27,734	27,036	698	0.57
Bluefin tuna	2	2	0	0.00
Skipjack tuna	26,943	26,355	588	0.55
Other tunas	3	3	0	0.00
Total	295,719	290,903	4,816	6.07
Other PMUS				
Mahimahi	62,945	62,014	931	1.29
Moonfish	29,701	29,178	523	0.61
Wahoo	24,885	24,810	75	0.51
Oilfish	31,393	28,931	2,462	0.64
Pomfret	97,467	97,022	445	2.00
Total	246,391	241,955	4,436	5.06
Total PMUS	701,923	591,118	110,805	14.41
Total Non-PMUS	4,885	1,020	3,865	0.10
Total All Species	706,808	592,138	114,670	14.51

Table 2. Annual summary report of fishing effort and catch statistics for U.S. longline vessels based in Hawaii and California, as derived from NMFS Western Pacific Daily Longline Fishing Log records. Catch and effort statistics are based on date of longline haul. Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 January - 31 December, 2015

Set Types All Sets

Fishing Area Main Hawaiian Islands EEZ

Number of vessels active130Number of trips (partial or completed)694Number of sets4,823Number of hooks set11,933,040

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 hooks
PMUS				
Billfish PMUS				
Blue marlin	2,184	2,167	17	0.18
Striped marlin	4,656	4,621	35	0.39
Shortbill spearfish	5,857	5,825	32	0.49
Swordfish	1,574	1,426	148	0.13
Other billfishes	118	117	1	0.01
Total	14,389	14,156	233	1.21
Shark PMUS				
Blue shark	17,059	0	17,059	1.43
Mako sharks	815	202	613	0.07
Thresher sharks	2,066	27	2,039	0.17
Oceanic whitetip shark	245	0	245	0.02
Silky shark	24	0	24	0.00
Other Sharks	144	0	144	0.01
Total	20,353	229	20,124	1.71
Tuna PMUS				
Albacore	1,525	1,518	7	0.13
Bigeye tuna	49,682	49,015	667	4.16
Yellowfin tuna	9,176	8,955	221	0.77
Bluefin tuna	0	0	0	0.00
Skipjack tuna	7,712	7,513	199	0.65
Other tunas	0	0	0	0.00
Total	68,095	67,001	1,094	5.71
Other PMUS				
Mahimahi	13,988	13,758	230	1.17
Moonfish	2,038	2,034	4	0.17
Wahoo	5,621	5,595	26	0.47
Oilfish	7,998	7,680	318	0.67
Pomfret	20,045	19,922	123	1.68
Total	49,690	48,989	701	4.16
Total PMUS	152,527	130,375	22,152	12.78
Total Non-PMUS	1,162	479	683	0.10
Total All Species	153,689	130,854	22,835	12.88

Table 3. Annual summary report of fishing effort and catch statistics for U.S. longline vessels based in Hawaii and California, as derived from NMFS Western Pacific Daily Longline Fishing Log records. Catch and effort statistics are based on date of longline haul. Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 January - 31 December, 2015

Set Types All Sets

Fishing Area Northwestern Hawaiian Islands EEZ

Number of vessels active82Number of trips (partial or completed)142Number of sets1,055Number of hooks set2,514,149

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caugh per 1000 hooks
PMUS				
Billfish PMUS				
Blue marlin	397	397	0	0.16
Striped marlin	1,375	1,367	8	0.55
Shortbill spearfish	1,245	1,227	18	0.50
Swordfish	1,750	1,608	142	0.70
Other billfishes	38	38	0	0.02
Total	4,805	4,637	168	1.91
Shark PMUS				
Blue shark	5,957	0	5,957	2.37
Mako sharks	295	48	247	0.12
Thresher sharks	317	6	311	0.13
Oceanic whitetip shark	34	0	34	0.01
Silky shark	2	0	2	0.00
Other Sharks	39	0	39	0.02
Total	6,644	54	6,590	2.64
Tuna PMUS				
Albacore	1,560	1,555	5	0.62
Bigeye tuna	11,248	11,004	244	4.47
Yellowfin tuna	2,692	2,645	47	1.07
Bluefin tuna	0	0	0	0.00
Skipjack tuna	1,756	1,755	1	0.70
Other tunas	0	0	0	0.00
Total	17,256	16,959	297	6.86
Other PMUS				
Mahimahi	2,144	2,102	42	0.85
Moonfish	709	709	0	0.28
Wahoo	770	769	1	0.31
Oilfish	1,780	1,609	171	0.71
Pomfret	1,864	1,836	28	0.74
Total	7,267	7,025	242	2.89
Total PMUS	35,972	28,675	7,297	14.31
Total Non-PMUS	6	2	4	0.00
Total All Species	35,978	28,677	7,301	14.31

**Table 4.** Annual summary report of fishing effort and catch statistics for U.S. longline vessels based in Hawaii and California, as derived from NMFS Western Pacific Daily Longline Fishing Log records. Catch and effort statistics are based on date of longline haul. Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 January - 31 December, 2015

Set Types All Sets

Fishing Area Pacific Remote Island Areas (PRIA) EEZ

Number of vessels active	16
Number of trips (partial or completed)	17
Number of sets	123
Number of hooks set	326,702

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 hooks
PMUS				
Billfish PMUS				
Blue marlin	86	86	0	0.26
Striped marlin	21	21	0	0.06
Shortbill spearfish	59	59	0	0.18
Swordfish	25	24	1	0.08
Other billfishes	5	5	0	0.02
Total	196	195	1	0.60
Shark PMUS				
Blue shark	464	0	464	1.42
Mako sharks	14	1	13	0.04
Thresher sharks	82	0	82	0.25
Oceanic whitetip shark	310	1	309	0.95
Silky shark	94	0	94	0.29
Other Sharks	7	0	7	0.02
Total	971	2	969	2.97
Tuna PMUS				
Albacore	46	46	0	0.14
Bigeye tuna	1,406	1,327	79	4.30
Yellowfin tuna	97	97	0	0.30
Bluefin tuna	0	0	0	0.00
Skipjack tuna	340	340	0	1.04
Other tunas	0	0	0	0.00
Total	1,889	1,810	79	5.78
Other PMUS				
Mahimahi	74	74	0	0.23
Moonfish	2	2	0	0.01
Wahoo	174	174	0	0.53
Oilfish	144	144	0	0.44
Pomfret	132	132	0	0.40
Total	526	526	0	1.61
Total PMUS	3,582	2,533	1,049	10.96
Total Non-PMUS	9	9	0	0.03
Total All Species	3,591	2,542	1,049	10.99

**Table 5.** Annual summary report of fishing effort and catch statistics for U.S. longline vessels based in Hawaii and California, as derived from NMFS Western Pacific Daily Longline Fishing Log records. Catch and effort statistics are based on date of longline haul. Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 January - 31 December, 2015

Set Types All Sets

Fishing Area Hawaiian Islands EEZ + PRIA EEZ

Number of vessels active 131
Number of trips (partial or completed) 778
Number of sets 6,001
Number of hooks set 14,773,891

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 hooks
PMUS				
Billfish PMUS				
Blue marlin	2,667	2,650	17	0.18
Striped marlin	6,052	6,009	43	0.41
Shortbill spearfish	7,161	7,111	50	0.48
Swordfish	3,349	3,058	291	0.23
Other billfishes	161	160	1	0.01
Total	19,390	18,988	402	1.31
Shark PMUS				
Blue shark	23,480	0	23,480	1.59
Mako sharks	1,124	251	873	0.08
Thresher sharks	2,465	33	2,432	0.17
Oceanic whitetip shark	589	1	588	0.04
Silky shark	120	0	120	0.01
Other Sharks	190	0	190	0.01
Total	27,968	285	27,683	1.89
Tuna PMUS				
Albacore	3,131	3,119	12	0.21
Bigeye tuna	62,336	61,346	990	4.22
Yellowfin tuna	11,965	11,697	268	0.81
Bluefin tuna	0	0	0	0.00
Skipjack tuna	9,808	9,608	200	0.66
Other tunas	0	0	0	0.00
Total	87,240	85,770	1,470	5.91
Other PMUS				
Mahimahi	16,206	15,934	272	1.10
Moonfish	2,749	2,745	4	0.19
Wahoo	6,565	6,538	27	0.44
Oilfish	9,922	9,433	489	0.67
Pomfret	22,041	21,890	151	1.49
Total	57,483	56,540	943	3.89
Total PMUS	192,081	161,583	30,498	13.00
Total Non-PMUS	1,177	490	687	0.08
Total All Species	193,258	162,073	31,185	13.08

Table 6. Annual summary report of fishing effort and catch statistics for U.S. longline vessels based in Hawaii and California, as derived from NMFS Western Pacific Daily Longline Fishing Log records. Catch and effort statistics are based on date of longline haul. Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 January - 31 December, 2015

Set Types All Sets

Fishing Area Outside U.S. EEZ

Number of vessels active141Number of trips (partial or completed)1,226Number of sets13,578Number of hooks set33,951,356

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 hooks
PMUS				
Billfish PMUS				
Blue marlin	4,896	4,828	68	0.14
Striped marlin	7,333	7,233	100	0.22
Shortbill spearfish	10,787	10,615	172	0.32
Swordfish	16,790	15,384	1,406	0.49
Other billfishes	446	441	5	0.01
Total	40,252	38,501	1,751	1.19
Shark PMUS				
Blue shark	54,977	0	54,977	1.62
Mako sharks	3,894	446	3,448	0.11
Thresher sharks	12,560	39	12,521	0.37
Oceanic whitetip shark	458	1	457	0.01
Silky shark	26	0	26	0.00
Other Sharks	288	0	288	0.01
Total	72,203	486	71,717	2.13
Tuna PMUS				
Albacore	7,314	7,288	26	0.22
Bigeye tuna	168,256	165,754	2,502	4.96
Yellowfin tuna	15,769	15,339	430	0.46
Bluefin tuna	2	2	0	0.00
Skipjack tuna	17,135	16,747	388	0.50
Other tunas	3	3	0	0.00
Total	208,479	205,133	3,346	6.14
Other PMUS				
Mahimahi	46,739	46,080	659	1.38
Moonfish	26,952	26,433	519	0.79
Wahoo	18,320	18,272	48	0.54
Oilfish	21,471	19,498	1,973	0.63
Pomfret	75,426	75,132	294	2.22
Total	188,908	185,415	3,493	5.56
Total PMUS	509,842	429,535	80,307	15.02
Total Non-PMUS	3,708	530	3,178	0.11
Total All Species	513,550	430,065	83,485	15.13

**Table 7.** Annual summary report of fishing effort and catch statistics for U.S. longline vessels based in Hawaii and California, as derived from NMFS Western Pacific Daily Longline Fishing Log records. Catch and effort statistics are based on date of longline haul. Data Source: PIFSC Information Management System, Longline Logbook Data.

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Time Period 1 January - 31 December, 2015

Set Types Shallow Sets Fishing Area All Areas Number of vessels active22Number of trips (partial or completed)65Number of sets1,110Number of hooks set1,235,703

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 hooks
PMUS				
Billfish PMUS				
Blue marlin	49	40	9	0.04
Striped marlin	266	246	20	0.22
Shortbill spearfish	106	88	18	0.09
Swordfish	14,751	13,352	1,399	11.94
Other billfishes	6	5	1	0.00
Total	15,178	13,731	1,447	12.28
Shark PMUS				
Blue shark	12,187	0	12,187	9.86
Mako sharks	1,415	160	1,255	1.15
Thresher sharks	51	3	48	0.04
Oceanic whitetip shark	14	1	13	0.01
Silky shark	0	0	0	0.00
Other Sharks	55	0	55	0.04
Total	13,722	164	13,558	11.10
Tuna PMUS				
Albacore	306	293	13	0.25
Bigeye tuna	1,342	1,249	93	1.09
Yellowfin tuna	139	133	6	0.11
Bluefin tuna	0	0	0	0.00
Skipjack tuna	45	43	2	0.04
Other tunas	0	0	0	0.00
Total	1,832	1,718	114	1.48
Other PMUS				
Mahimahi	2,626	2,549	77	2.13
Moonfish	639	512	127	0.52
Wahoo	16	15	1	0.01
Oilfish	1,288	920	368	1.04
Pomfret	123	85	38	0.10
Total	4,692	4,081	611	3.80
Total PMUS	35,424	19,694	15,730	28.67
Total Non-PMUS	1	0	1	0.00
Total All Species	35,425	19,694	15,731	28.67

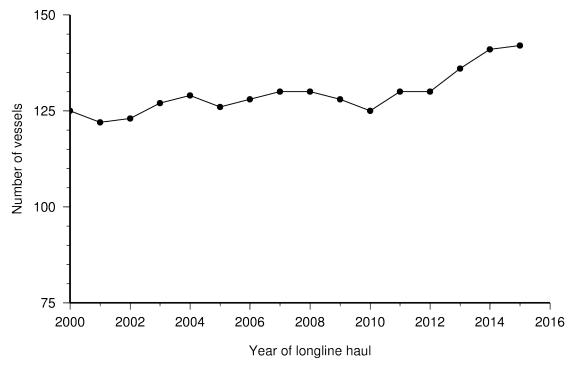
**Table 8.** Annual summary report of fishing effort and catch statistics for U.S. longline vessels based in Hawaii and California, as derived from NMFS Western Pacific Daily Longline Fishing Log records. Catch and effort statistics are based on date of longline haul. Data Source: PIFSC Information Management System, Longline Logbook Data.

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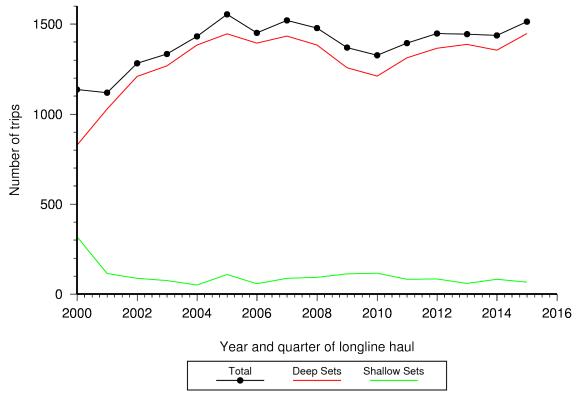
Time Period 1 January - 31 December, 2015

Set Types Deep Sets Fishing Area All Areas Number of vessels active 142
Number of trips (partial or completed) 1,448
Number of sets 18,469
Number of hooks set 47,489,544

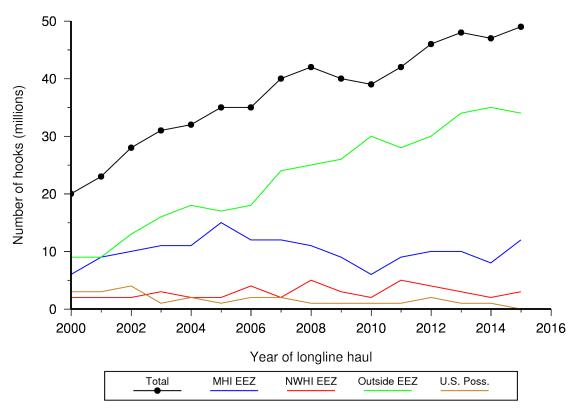
Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 hooks
PMUS				
Billfish PMUS				
Blue marlin	7,514	7,438	76	0.16
Striped marlin	13,119	12,996	123	0.28
Shortbill spearfish	17,842	17,638	204	0.38
Swordfish	5,388	5,090	298	0.11
Other billfishes	601	596	5	0.01
Total	44,464	43,758	706	0.94
Shark PMUS				
Blue shark	66,270	0	66,270	1.40
Mako sharks	3,603	537	3,066	0.08
Thresher sharks	14,974	69	14,905	0.32
Oceanic whitetip shark	1,033	1	1,032	0.02
Silky shark	146	0	146	0.00
Other Sharks	423	0	423	0.01
Total	86,449	607	85,842	1.82
Tuna PMUS				
Albacore	10,139	10,114	25	0.21
Bigeye tuna	229,250	225,851	3,399	4.83
Yellowfin tuna	27,595	26,903	692	0.58
Bluefin tuna	2	2	0	0.00
Skipjack tuna	26,898	26,312	586	0.57
Other tunas	3	3	0	0.00
Total	293,887	289,185	4,702	6.19
Other PMUS				
Mahimahi	60,319	59,465	854	1.27
Moonfish	29,062	28,666	396	0.61
Wahoo	24,869	24,795	74	0.52
Oilfish	30,105	28,011	2,094	0.63
Pomfret	97,344	96,937	407	2.05
Total	241,699	237,874	3,825	5.09
Total PMUS	666,499	571,424	95,075	14.03
Total Non-PMUS	4,884	1,020	3,864	0.10
Total All Species	671,383	572,444	98,939	14.14



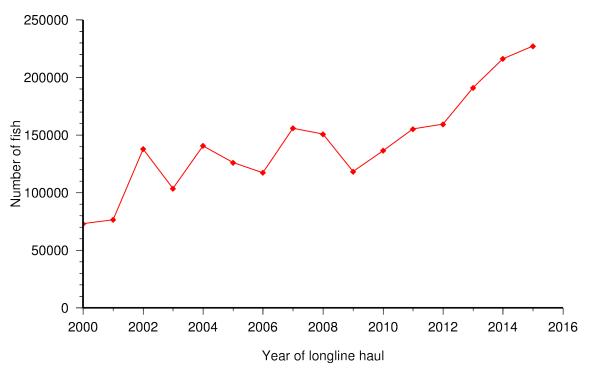
**Figure 1.** Number of active longline vessels based in Hawaii and California, by year, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



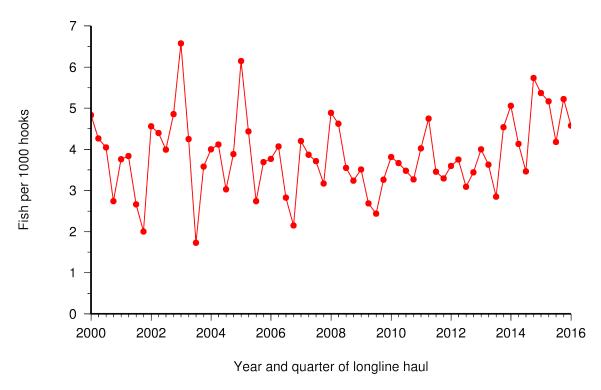
**Figure 2.** Number of fishing trips by longline vessels based in Hawaii and California, by year and set type, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



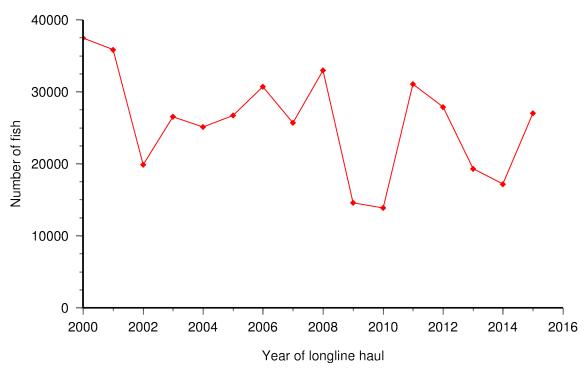
**Figure 3.** Number of hooks in millions, set by longline vessels based in Hawaii and California, by year, 2000-2015 [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



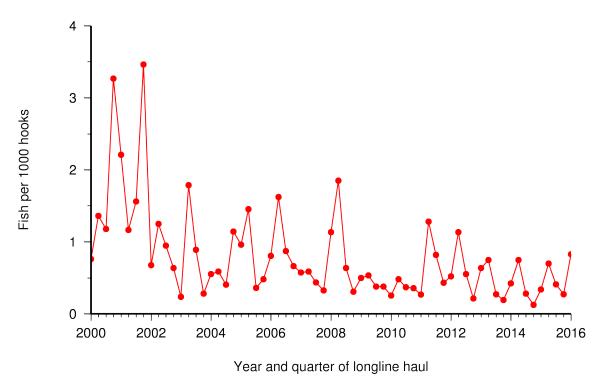
**Figure 4.** Annual catch of bigeye tuna by longline vessels based in Hawaii and California, by year, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



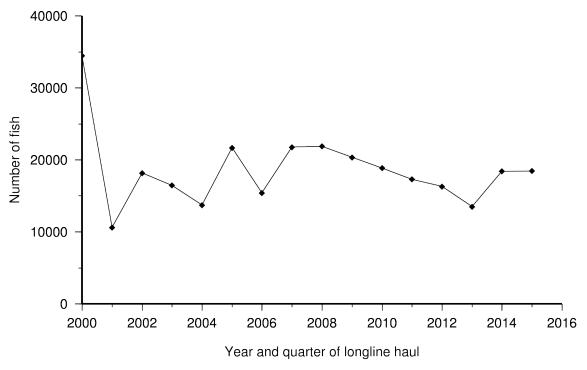
**Figure 5.** Quarterly CPUE of bigeye tuna (fish per 1000 hooks) by deep-set longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



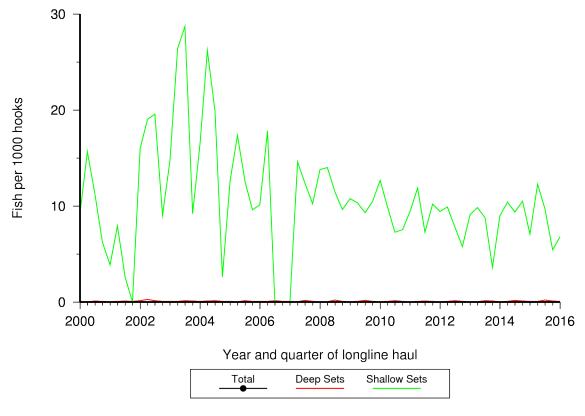
**Figure 6.** Annual catch of yellowfin tuna by longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



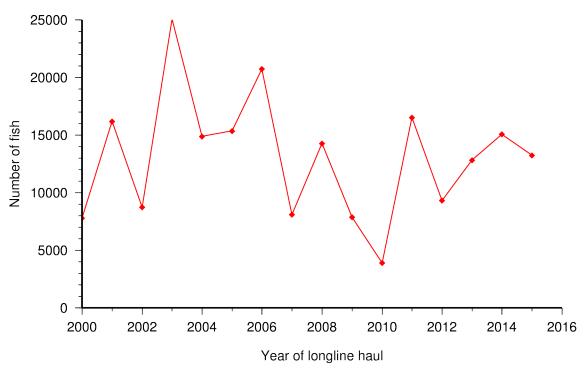
**Figure 7.** Quarterly CPUE of yellowfin tuna (fish per 1000 hooks) by deep-set longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



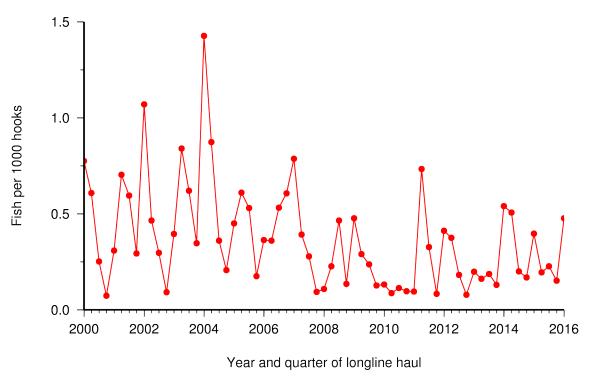
**Figure 8.** Annual catch of swordfish by longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



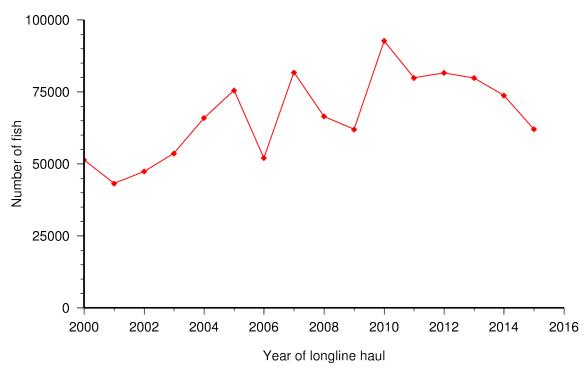
**Figure 9.** Quarterly CPUE of swordfish (fish per 1000 hooks) by quarter and set type, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



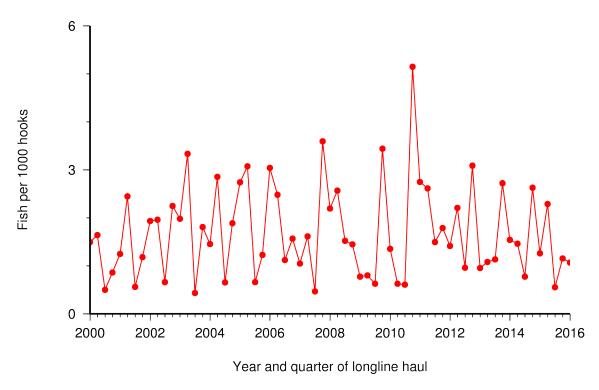
**Figure 10.** Annual catch of striped marlin by longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 15:03]



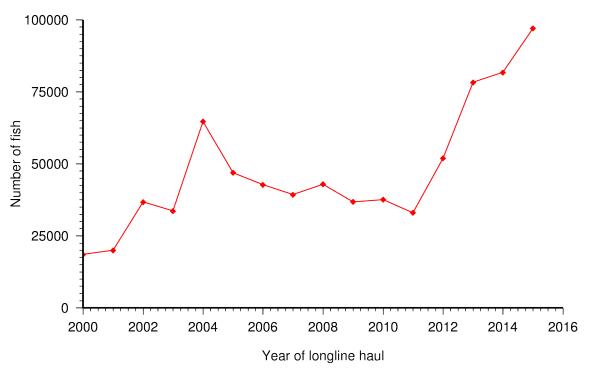
**Figure 11.** Quarterly CPUE of striped marlin (fish per 1000 hooks) by deep-set longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 15:03]



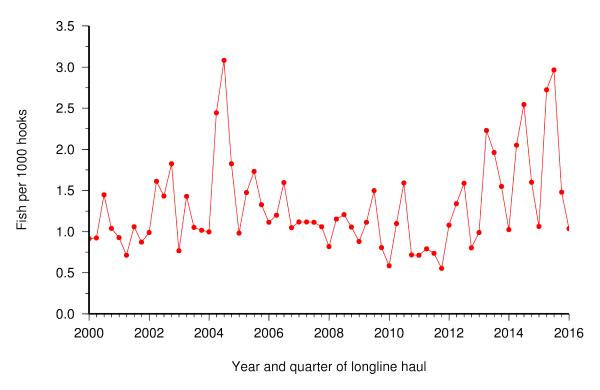
**Figure 12.** Annual catch of mahimahi by longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



**Figure 13.** Quarterly CPUE of mahimahi (fish per 1000 hooks) by deep-set longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



**Figure 14.** Annual catch of pomfret by longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]



**Figure 15.** Quarterly CPUE of pomfret (fish per 1000 hooks) by deep-set longline vessels based in Hawaii and California, 2000-2015. [PIFSC IMS, LLDS, 01 MAR 2016 14:57]