

The Hawaii-based Longline Logbook Summary Report January–December 2009¹

Pacific Islands Fisheries Science Center
Fisheries Monitoring and Analysis Program

This annual report summarizes data on fish catch and fishing effort by Hawaii-based longline vessels for calendar year 2009. Results are based on the date gear was hauled, as reported by vessel operators to the National Marine Fisheries Service in Federal logbooks of daily fishing activity. The report covers longline operations for fishing trips completed in 2009 and most, but not all, data from trips that began late in the fourth quarter of 2009 and continued into the first quarter of 2010. Therefore, the 2009 summary statistics reported here are preliminary.

During 2009, 127 vessels were active in the Hawaii-based fleet, two fewer vessels than in 2008 (Table 1, Fig. A1); participation in the fishery has been nearly constant over the past six years. Longline fishers made 1,342 longline trips in 2009 (135 less than in 2008), including 1,241 using deep-set gear to target tuna (down 139 trips from 2008) and 101 using shallow-set gear to target swordfish (up 8 trips) (Table 1, Fig. A2). The Hawaii-based longline fishery deployed 39.3 million hooks in 2009, down 2.3 million hooks from 2008 (Table 1, Fig. A3). After increasing steadily from 1994 through 2007, the number of hooks has remained fairly stable for the past three years. A growing proportion of hooks are being set outside the U.S. Exclusive Economic Zone (EEZ) — 65% of the total hooks set in 2009. The remainder were deployed in the main Hawaiian Islands EEZ (24%), Northwestern Hawaiian Islands EEZ (9%), and in the EEZ of the Pacific Remote Island Areas (PRIA, consisting of U.S. possessions Wake Island, Jarvis Island, Howland Island, Baker Island, Kingman Reef, Palmyra Atoll, and Johnston Atoll) (3%).

In 2009, the Hawaii longline fleet caught 118,668 bigeye tuna (Table 1, Fig. A4), a reduction of 22% from the bigeye catch in 2008. Despite the decline in catch in 2009, the trend of bigeye tuna catch has been upward since the first year of logbook monitoring in 1991. In contrast, the trend in albacore catch has been downward since 1997. It reached a record low of 10,094 albacore in 2009; this is a decrease of 39% from 2008. After remaining relatively steady during 2002-2008, the catch of yellowfin tuna declined by 61% in 2009 to 13,376 fish.

The 2009 swordfish catch was 21,189 (Table 1, Fig. A5). This was 12% lower than the swordfish catch in 2008 despite a small increase in the number of hooks deployed in shallow sets targeting swordfish in 2009. The catch of striped marlin was 7,941 fish in 2009, a decrease of 45% compared to 2008; it has continued to vary during the 19-year period of logbook records. The catch of blue marlin in 2009 (4,271 fish) was close to the catch in 2008.

In 2009, the Hawaii longline fleet caught 60,145 sharks and kept 4% of them (Table 1, Fig. A6). Blue shark comprised 79% of the total shark catch (47,703 fish). In 2009, the fleet

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caught 3,651 mako sharks and a record 7,009 thresher sharks. Catches of mako shark have steadily increased, whereas those of blue shark and thresher sharks have been relatively steady during the last several years (Fig. A6).

In 2008, the Hawaii longline catch of other key pelagic species included 63,394 mahimahi, 36,859 pomfret, 32,644 oilfish, a record high 21,266 moonfish, and 8,809 wahoo (Table 1, Fig. A7). Catches of all these species in 2009 were higher than levels in the 1990s, but those of wahoo and pomfret have declined slightly over the last several years.

The longline logbook statistics reported above refer to all fishing areas combined. Summary catch and effort for 2009 were also compiled by several geographical sub-areas including: the MHI EEZ; the NWHI EEZ; the PRIA EEZ; the combined EEZ of MHI, NWHI and PRIA; and waters outside the U.S. EEZ. These statistics are presented in Tables 2-6. Summary statistics for the entire fishing area in 2009 are also presented for each distinct trip type: swordfish-targeted trips using shallow-set gear (Table 7) and tuna-targeted trips deploying deep-set gear (Table 8).

This report is available in PDF format on the PIFSC Web site at <http://www.pifsc.noaa.gov/fmsd/reports.php>. The Web site also provides quarterly and yearly charts and an archive of quarterly and annual summary tables of fish catch and fishing effort from 1991 to the present. The statistics in the online graphs and archived tables are updated periodically as new records are added to the database and corrections are made.

Table 1. Annual summary report of fishing effort and catch statistics for U.S. longline vessels landing in Hawaii as derived for NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC Information Management System, Longline Logbook Data, 2/24/2010 11:59:14AM].

Report Coverage					Number of vessels active		127
Time Period	2009				Number of trips		1,342
Fishing Area	All Areas				Number of sets		18,454
Trip Types	All Trip Types				Number of hooks set		39,298,820

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	4,271	4,241	30	0.11
Striped marlin	7,941	7,844	97	0.20
Shortbill spearfish	8,811	8,722	89	0.22
Swordfish	21,189	19,714	1,475	0.54
Other billfishes	541	527	14	0.01
Total	42,753	41,048	1,705	1.09
Sharks				
Blue shark	47,703	238	47,465	1.21
Mako sharks	3,651	1,410	2,241	0.09
Thresher sharks	7,009	345	6,664	0.18
Oceanic whitetip shark	975	77	898	0.02
Silky shark	194	1	193	0.00
Other sharks	613	39	574	0.02
Total	60,145	2,110	58,035	1.53
Tunas				
Albacore	10,094	9,709	385	0.26
Bigeye tuna	118,668	117,339	1,329	3.02
Yellowfin tuna	13,376	13,180	196	0.34
Bluefin tuna	12	12	0	0.00
Skipjack tuna	17,815	16,813	1,002	0.45
Other tunas	12	11	1	0.00
Total	159,977	157,064	2,913	4.07
Other PMUS				
Mahimahi	63,394	61,457	1,937	1.61
Moonfish	21,266	21,028	238	0.54
Wahoo	8,809	8,773	36	0.22
Oilfish	32,644	31,989	655	0.83
Pomfret	36,859	36,660	199	0.94
Total	162,972	159,907	3,065	4.15
Total PMUS	425,847	360,129	65,718	10.84
Total Non-PMUS	4,169	863	3,306	0.11
Total All Species	430,016	360,992	69,024	10.94

Table 2. Annual summary report of fishing effort and catch statistics for U.S. longline vessels landing in Hawaii as derived for NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC Information Management System, Longline Logbook Data, 2/24/2010 11:59:14AM].

Report Coverage					Number of vessels active		126
Time Period	2009				Number of trips		661
Fishing Area	Main Hawaiian Islands EEZ				Number of sets		4,424
Trip Types	All Trip Types				Number of hooks set		9,301,371

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	602	597	5	0.06
Striped marlin	1,946	1,923	23	0.21
Shortbill spearfish	1,790	1,779	11	0.19
Swordfish	2,587	2,427	160	0.28
Other billfishes	56	51	5	0.01
Total	6,981	6,777	204	0.75
Sharks				
Blue shark	9,536	54	9,482	1.03
Mako sharks	734	443	291	0.08
Thresher sharks	630	99	531	0.07
Oceanic whitetip shark	104	11	93	0.01
Silky shark	3	0	3	0.00
Other sharks	78	15	63	0.01
Total	11,085	622	10,463	1.19
Tunas				
Albacore	490	487	3	0.05
Bigeye tuna	23,829	23,520	309	2.56
Yellowfin tuna	2,611	2,542	69	0.28
Bluefin tuna	0	0	0	0.00
Skipjack tuna	3,541	3,385	156	0.38
Other tunas	6	6	0	0.00
Total	30,477	29,940	537	3.28
Other PMUS				
Mahimahi	9,562	9,469	93	1.03
Moonfish	2,477	2,465	12	0.27
Wahoo	1,253	1,247	6	0.13
Oilfish	8,567	8,499	68	0.92
Pomfret	5,890	5,838	52	0.63
Total	27,749	27,518	231	2.98
Total PMUS	76,292	64,857	11,435	8.20
Total Non-PMUS	1,293	452	841	0.14
Total All Species	77,585	65,309	12,276	8.34

Table 3. Annual summary report of fishing effort and catch statistics for U.S. longline vessels landing in Hawaii as derived for NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC Information Management System, Longline Logbook Data, 2/24/2010 11:59:14AM].

Report Coverage					Number of vessels active		102
Time Period	2009				Number of trips		217
Fishing Area	Northwestern Hawaiian Islands EEZ				Number of sets		1,524
Trip Types	All Trip Types				Number of hooks set		3,367,514

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	262	258	4	0.08
Striped marlin	1,262	1,252	10	0.37
Shortbill spearfish	698	691	7	0.21
Swordfish	2,152	1,977	175	0.64
Other billfishes	15	15	0	0.00
Total	4,389	4,193	196	1.30
Sharks				
Blue shark	5,238	36	5,202	1.56
Mako sharks	299	143	156	0.09
Thresher sharks	303	51	252	0.09
Oceanic whitetip shark	85	7	78	0.03
Silky shark	3	0	3	0.00
Other sharks	78	4	74	0.02
Total	6,006	241	5,765	1.78
Tunas				
Albacore	1,781	1,777	4	0.53
Bigeye tuna	11,350	11,036	314	3.37
Yellowfin tuna	1,779	1,738	41	0.53
Bluefin tuna	3	3	0	0.00
Skipjack tuna	1,786	1,671	115	0.53
Other tunas	1	1	0	0.00
Total	16,700	16,226	474	4.96
Other PMUS				
Mahimahi	1,709	1,679	30	0.51
Moonfish	1,034	1,031	3	0.31
Wahoo	490	487	3	0.15
Oilfish	4,496	4,473	23	1.34
Pomfret	2,338	2,325	13	0.69
Total	10,067	9,995	72	2.99
Total PMUS	37,162	30,655	6,507	11.04
Total Non-PMUS	262	43	219	0.08
Total All Species	37,424	30,698	6,726	11.11

Table 4. Annual summary report of fishing effort and catch statistics for U.S. longline vessels landing in Hawaii as derived for NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC Information Management System, Longline Logbook Data, 2/24/2010 11:59:14AM].

Report Coverage					Number of vessels active		63
Time Period	2009				Number of trips		96
Fishing Area	Pacific Remote Island Areas (PRIA) EEZ				Number of sets		500
Trip Types	All Trip Types				Number of hooks set		1,147,270

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	291	289	2	0.25
Striped marlin	202	200	2	0.18
Shortbill spearfish	377	364	13	0.33
Swordfish	138	116	22	0.12
Other billfishes	49	49	0	0.04
Total	1,057	1,018	39	0.92
Sharks				
Blue shark	2,279	20	2,259	1.99
Mako sharks	96	10	86	0.08
Thresher sharks	532	15	517	0.46
Oceanic whitetip shark	313	26	287	0.27
Silky shark	40	0	40	0.03
Other sharks	246	11	235	0.21
Total	3,506	82	3,424	3.06
Tunas				
Albacore	1,065	1,060	5	0.93
Bigeye tuna	3,947	3,893	54	3.44
Yellowfin tuna	1,919	1,886	33	1.67
Bluefin tuna	0	0	0	0.00
Skipjack tuna	1,189	996	193	1.04
Other tunas	0	0	0	0.00
Total	8,120	7,835	285	7.08
Other PMUS				
Mahimahi	334	329	5	0.29
Moonfish	159	159	0	0.14
Wahoo	547	539	8	0.48
Oilfish	686	686	0	0.60
Pomfret	1,398	1,394	4	1.22
Total	3,124	3,107	17	2.72
Total PMUS	15,807	12,042	3,765	13.78
Total Non-PMUS	61	11	50	0.05
Total All Species	15,868	12,053	3,815	13.83

Table 5. Annual summary report of fishing effort and catch statistics for U.S. longline vessels landing in Hawaii as derived for NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC Information Management System, Longline Logbook Data, 2/24/2010 11:59:14AM].

Report Coverage					Number of vessels active		127
Time Period	2009				Number of trips		820
Fishing Area	Hawaiian Islands EEZ + PRIA EEZ				Number of sets		6,448
Trip Types	All Trip Types				Number of hooks set		13,816,155

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	1,155	1,144	11	0.08
Striped marlin	3,410	3,375	35	0.25
Shortbill spearfish	2,865	2,834	31	0.21
Swordfish	4,877	4,520	357	0.35
Other billfishes	120	115	5	0.01
Total	12,427	11,988	439	0.90
Sharks				
Blue shark	17,053	110	16,943	1.23
Mako sharks	1,129	596	533	0.08
Thresher sharks	1,465	165	1,300	0.11
Oceanic whitetip shark	502	44	458	0.04
Silky shark	46	0	46	0.00
Other sharks	402	30	372	0.03
Total	20,597	945	19,652	1.49
Tunas				
Albacore	3,336	3,324	12	0.24
Bigeye tuna	39,126	38,449	677	2.83
Yellowfin tuna	6,309	6,166	143	0.46
Bluefin tuna	3	3	0	0.00
Skipjack tuna	6,516	6,052	464	0.47
Other tunas	7	7	0	0.00
Total	55,297	54,001	1,296	4.00
Other PMUS				
Mahimahi	11,605	11,477	128	0.84
Moonfish	3,670	3,655	15	0.27
Wahoo	2,290	2,273	17	0.17
Oilfish	13,749	13,658	91	1.00
Pomfret	9,626	9,557	69	0.70
Total	40,940	40,620	320	2.96
Total PMUS	129,261	107,554	21,707	9.36
Total Non-PMUS	1,616	506	1,110	0.12
Total All Species	130,877	108,060	22,817	9.47

Table 6. Annual summary report of fishing effort and catch statistics for U.S. longline vessels landing in Hawaii as derived for NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC Information Management System, Longline Logbook Data, 2/24/2010 11:59:14AM].

Report Coverage					Number of vessels active		124
Time Period	2009				Number of trips		1,084
Fishing Area	Outside U.S. EEZ				Number of sets		12,006
Trip Types	All Trip Types				Number of hooks set		25,482,665

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	3,116	3,097	19	0.12
Striped marlin	4,531	4,469	62	0.18
Shortbill spearfish	5,946	5,888	58	0.23
Swordfish	16,312	15,194	1,118	0.64
Other billfishes	421	412	9	0.02
Total	30,326	29,060	1,266	1.19
Sharks				
Blue shark	30,650	128	30,522	1.20
Mako sharks	2,522	814	1,708	0.10
Thresher sharks	5,544	180	5,364	0.22
Oceanic whitetip shark	473	33	440	0.02
Silky shark	148	1	147	0.01
Other sharks	211	9	202	0.01
Total	39,548	1,165	38,383	1.55
Tunas				
Albacore	6,758	6,385	373	0.27
Bigeye tuna	79,542	78,890	652	3.12
Yellowfin tuna	7,067	7,014	53	0.28
Bluefin tuna	9	9	0	0.00
Skipjack tuna	11,299	10,761	538	0.44
Other tunas	5	4	1	0.00
Total	104,680	103,063	1,617	4.11
Other PMUS				
Mahimahi	51,789	49,980	1,809	2.03
Moonfish	17,596	17,373	223	0.69
Wahoo	6,519	6,500	19	0.26
Oilfish	18,895	18,331	564	0.74
Pomfret	27,233	27,103	130	1.07
Total	122,032	119,287	2,745	4.79
Total PMUS	296,586	252,575	44,011	11.64
Total Non-PMUS	2,553	357	2,196	0.10
Total All Species	299,139	252,932	46,207	11.74

Table 7. Annual summary report of fishing effort and catch statistics for U.S. longline vessels landing in Hawaii as derived for NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC Information Management System, Longline Logbook Data, 2/24/2010 11:59:14AM].

Report Coverage					Number of vessels active		28
Time Period	2009				Number of trips		101
Fishing Area	All Areas				Number of sets		1,705
Trip Types	Swordfish Targeted Trips				Number of hooks set		1,668,018

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	179	172	7	0.11
Striped marlin	597	575	22	0.36
Shortbill spearfish	77	71	6	0.05
Swordfish	17,858	16,643	1,215	10.71
Other billfishes	4	4	0	0.00
Total	18,715	17,465	1,250	11.22
Sharks				
Blue shark	7,775	45	7,730	4.66
Mako sharks	1,012	179	833	0.61
Thresher sharks	77	2	75	0.05
Oceanic whitetip shark	44	14	30	0.03
Silky shark	3	0	3	0.00
Other sharks	26	2	24	0.02
Total	8,937	242	8,695	5.36
Tunas				
Albacore	1,457	1,094	363	0.87
Bigeye tuna	820	771	49	0.49
Yellowfin tuna	247	245	2	0.15
Bluefin tuna	7	7	0	0.00
Skipjack tuna	56	55	1	0.03
Other tunas	3	2	1	0.00
Total	2,590	2,174	416	1.55
Other PMUS				
Mahimahi	3,221	3,151	70	1.93
Moonfish	89	68	21	0.05
Wahoo	38	37	1	0.02
Oilfish	3,040	2,663	377	1.82
Pomfret	76	69	7	0.05
Total	6,464	5,988	476	3.88
Total PMUS	36,706	25,869	10,837	22.01
Total Non-PMUS	25	17	8	0.01
Total All Species	36,731	25,886	10,845	22.02

Table 8. Annual summary report of fishing effort and catch statistics for U.S. longline vessels landing in Hawaii as derived for NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC Information Management System, Longline Logbook Data, 2/24/2010 11:59:14AM].

Report Coverage					Number of vessels active	127
Time Period	2009				Number of trips	1,241
Fishing Area	All Areas				Number of sets	16,749
Trip Types	Tuna Targeted Trips				Number of hooks set	37,630,802

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	4,092	4,069	23	0.11
Striped marlin	7,344	7,269	75	0.20
Shortbill spearfish	8,734	8,651	83	0.23
Swordfish	3,331	3,071	260	0.09
Other billfishes	537	523	14	0.01
Total	24,038	23,583	455	0.64
Sharks				
Blue shark	39,928	193	39,735	1.06
Mako sharks	2,639	1,231	1,408	0.07
Thresher sharks	6,932	343	6,589	0.18
Oceanic whitetip shark	931	63	868	0.02
Silky shark	191	1	190	0.01
Other sharks	587	37	550	0.02
Total	51,208	1,868	49,340	1.36
Tunas				
Albacore	8,637	8,615	22	0.23
Bigeye tuna	117,848	116,568	1,280	3.13
Yellowfin tuna	13,129	12,935	194	0.35
Bluefin tuna	5	5	0	0.00
Skipjack tuna	17,759	16,758	1,001	0.47
Other tunas	9	9	0	0.00
Total	157,387	154,890	2,497	4.18
Other PMUS				
Mahimahi	60,173	58,306	1,867	1.60
Moonfish	21,177	20,960	217	0.56
Wahoo	8,771	8,736	35	0.23
Oilfish	29,604	29,326	278	0.79
Pomfret	36,783	36,591	192	0.98
Total	156,508	153,919	2,589	4.16
Total PMUS	389,141	334,260	54,881	10.34
Total Non-PMUS	4,144	846	3,298	0.11
Total All Species	393,285	335,106	58,179	10.45

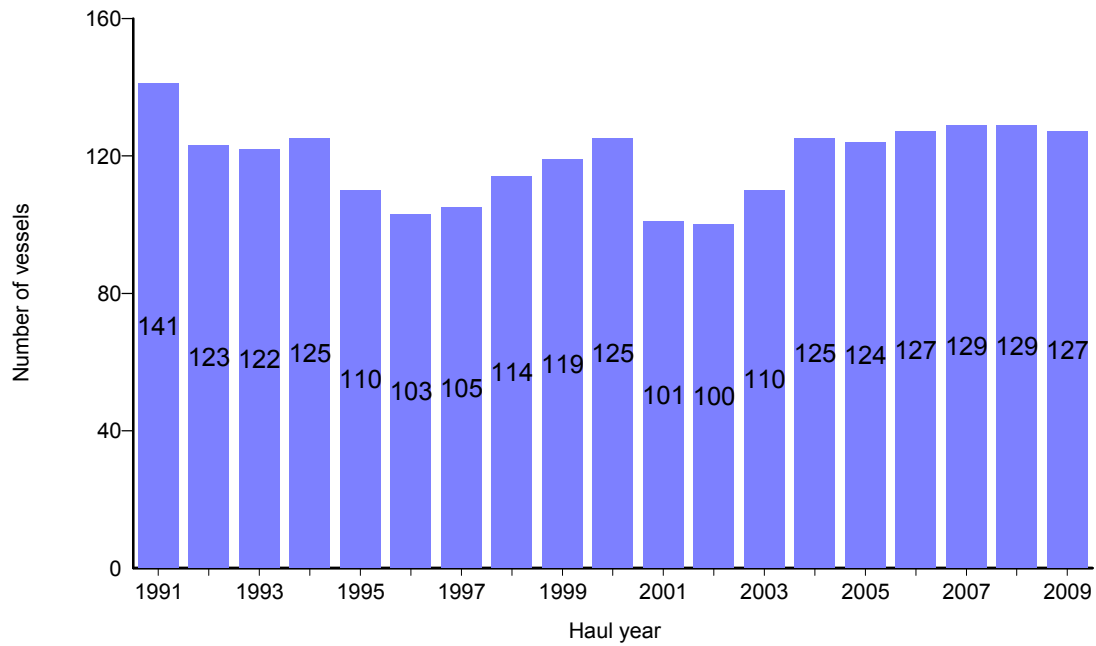


Figure A1. Number of active longline vessels based and landing in Hawaii, by year, 1991-2009. [PIFSC IMS, Longline Logbook Data, 2/24/2010 8:09:00AM]

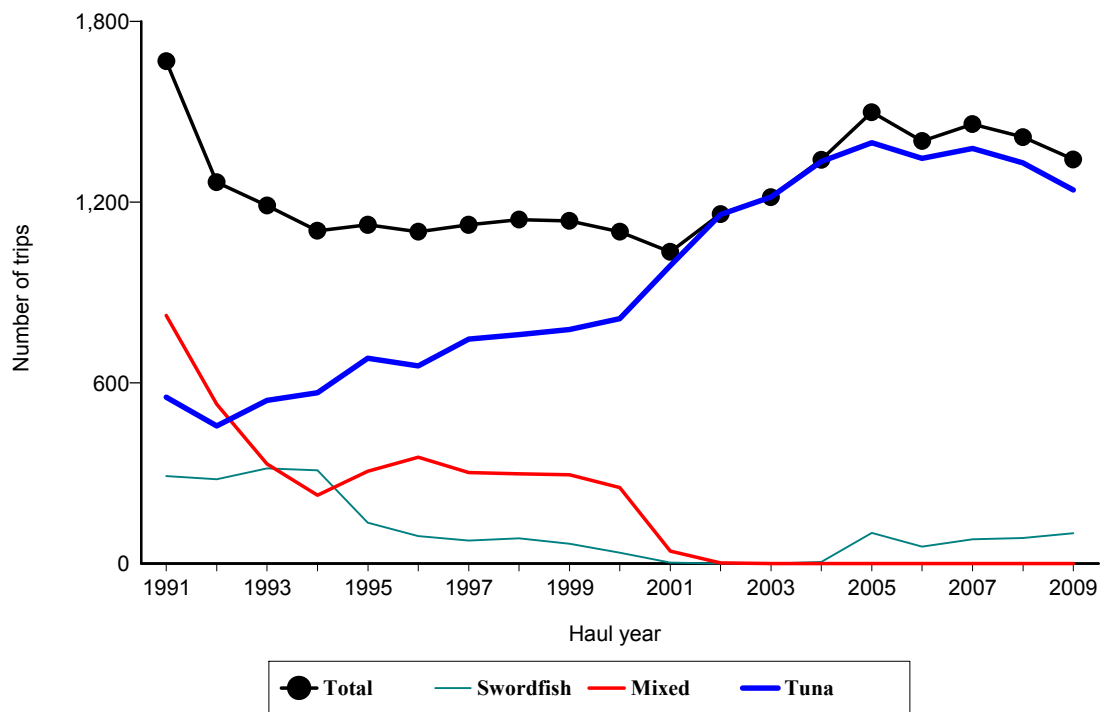


Figure A2. Number of fishing trips by longline vessels based and landing in Hawaii, by year and trip type, 1991-2009. [PIFSC IMS, Longline Logbook Data, 2/24/2010 8:09:00AM]

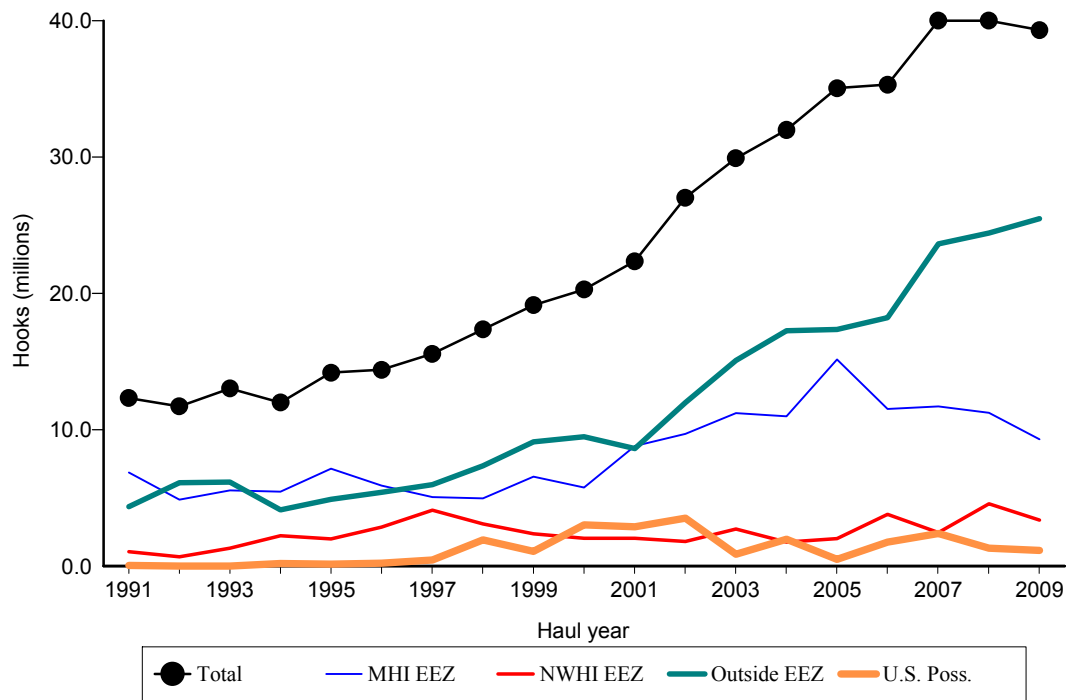


Figure A3. Number of hooks set by longline vessels based and landing in Hawaii, by year and fishing area, 1991-2009. [PIFSC IMS, Longline Logbook Data, 2/24/2010 8:09:00AM]

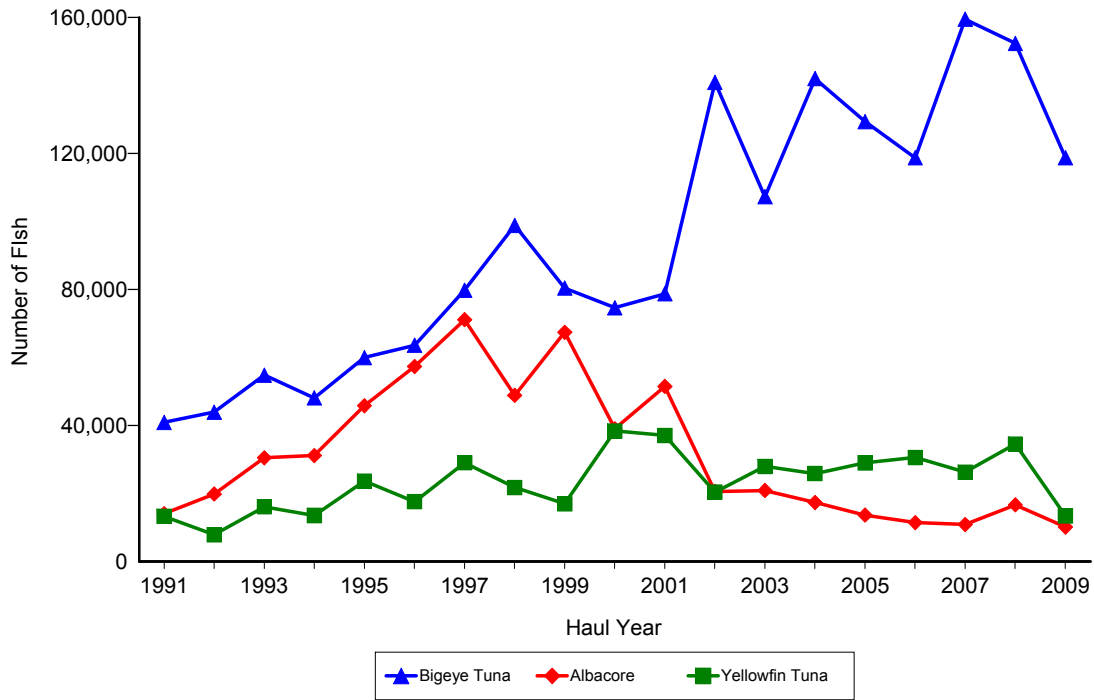


Figure A4. Annual catch of albacore, bigeye tuna, and yellowfin tuna by longline vessels based and landing in Hawaii, 1991-2009. [2/24/2010 8:09:00AM]

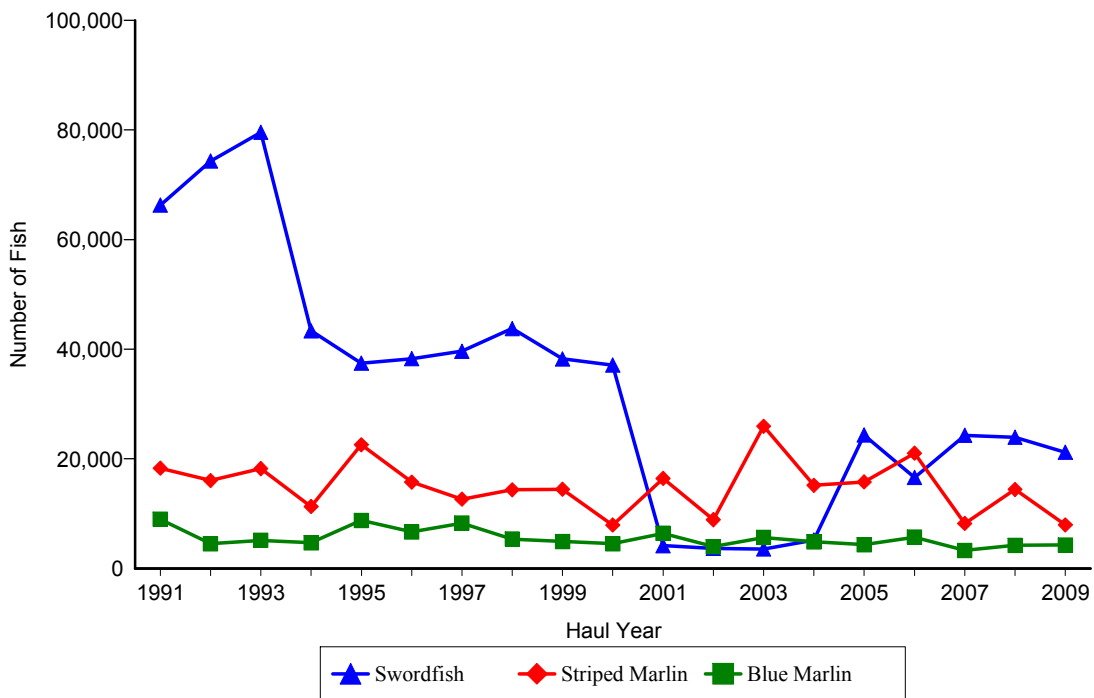


Figure A5. Annual catch of blue marlin, striped marlin, and swordfish by longline vessels based and landing in Hawaii, 1991-2009. [PIFSC IMS, Longline Logbook Data, 2/24/2010 8:09:00AM]

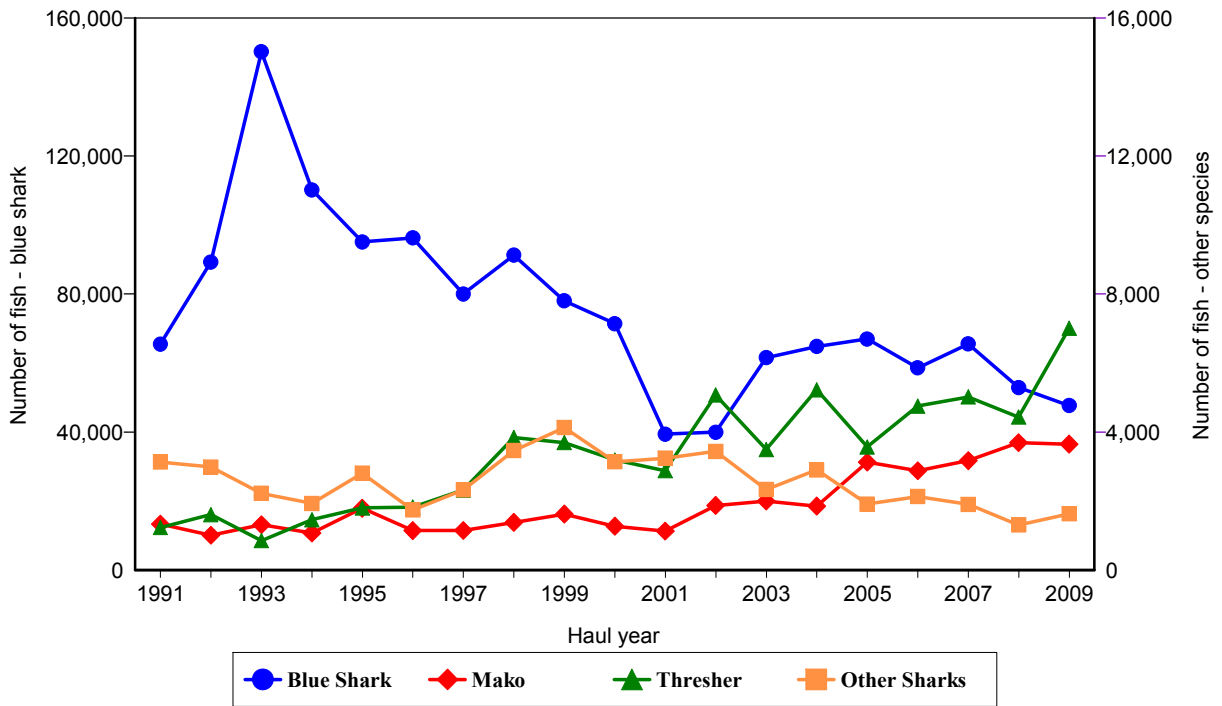


Figure A6. Annual catch of blue shark, mako shark, thresher shark, and other sharks by longline vessels based and landing in Hawaii, 1991-2009. [PIFSC IMS, Longline Logbook Data, 2/24/2010 8:09:00AM]

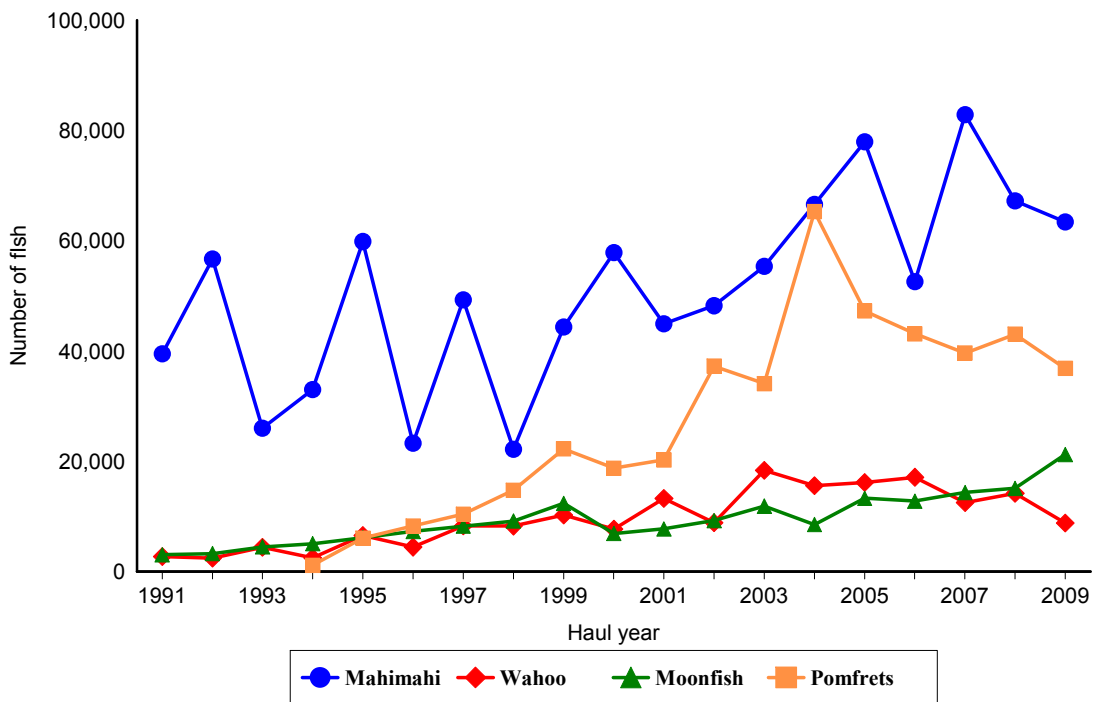


Figure A7. Annual catch of mahimahi, moonfish, pomfret, and wahoo by longline vessels based and landing in Hawaii, 1991-2009. [PIFSC IMS, Longline Logbook Data, 2/24/2010 8:09:00AM]