

The Hawaii-based Longline Logbook Summary Report January–December 2010¹

Pacific Islands Fisheries Science Center
Fisheries Monitoring Branch

This annual report summarizes data on fish catch and fishing effort by Hawaii-based longline vessels for calendar year 2010. 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 2010 and most, but not all, data from trips that began late in the fourth quarter of 2010 and continued into the first quarter of 2011. Therefore, the 2010 summary statistics reported here are preliminary.

During 2010, 124 vessels were active in the Hawaii-based fleet, three fewer vessels than in 2009 (Table 1, Fig. 1); participation in the fishery has been nearly constant over the past seven years. Longline fishers made 1,313 longline trips in 2010 (52 less than in 2009), including 1,205 using deep-set gear to target tuna (down 48 trips from 2009) and 108 using shallow-set gear to target swordfish (down 4 trips) (Table 1, Fig. 2). The Hawaii-based longline fishery deployed 39.0 million hooks in 2010, down 0.5 million hooks from 2009 (Table 1, Fig. 3). The number of hooks set increased steadily from 1994 through 2007, but has declined slightly over the past four years. A growing proportion of hooks are being set outside the U.S. Exclusive Economic Zone (EEZ) —75% of the total hooks set in 2010. The remainder were deployed in the main Hawaiian Islands EEZ (16%), Northwestern Hawaiian Islands EEZ (6%), 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) (4%).

In 2010, the Hawaii longline fleet caught 137,089 bigeye tuna (Table 1, Fig. 4), 15% more than in 2009. The trend of bigeye tuna catch has been upward since the first year of logbook monitoring in 1991. The albacore catch in 2010 was 20,620 fish, about double the catch in 2009; however, the albacore catch has trended downward since peaking in 1997. The catch of yellowfin tuna in 2010 was 13,816 fish, an increase of 3% over 2009.

The 2010 swordfish catch was 19,703 fish (Table 1, Fig. 5). This was 10% lower than the swordfish catch in 2009 despite an increase in the number of hooks deployed in shallow sets targeting swordfish in 2010. The catch of striped marlin was 3,929 fish in 2010, a decrease of 51% compared to 2009; it has continued to vary during the 20-year period of logbook records, with a downward trend after peaking in 2003. The catch of blue marlin in 2010 was 3,460 fish, down 19% from 2009.

In 2010, the Hawaii longline fleet caught 70,812 sharks and kept just 2% of them (Table 1, Fig. 6). Blue shark comprised 83% of the total shark catch (58,585 fish). In 2010, the fleet caught 3,885 mako sharks and 6,372 thresher sharks. Catches of mako and thresher sharks have

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trended upward, whereas those of blue shark have been relatively steady during the last eight years (Fig. 6).

In 2010, the Hawaii longline catch of other key pelagic species included a record 94,854 mahimahi, 37,785 pomfret, 34,102 oilfish, 19,725 moonfish, and 8,804 wahoo (Table 1, Fig. 7). Catches of all these species in 2010 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 2010 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 2010 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 website at <http://www.pifsc.noaa.gov/fmsd/reports.php>. The website 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, 2/9/2011 2:29:58PM].

Report Coverage		Number of vessels active			124
Time Period	2010	Number of trips			1,313
Fishing Area	All Areas	Number of sets			17,903
Trip Types	All Trip Types	Number of hooks set			39,001,014

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	3,460	3,427	33	0.09
Striped marlin	3,929	3,899	30	0.10
Shortbill spearfish	8,445	8,396	49	0.22
Swordfish	19,703	18,540	1,163	0.51
Other billfishes	477	465	12	0.01
Total	36,014	34,727	1,287	0.92
Sharks				
Blue shark	58,585	190	58,395	1.50
Mako sharks	3,885	1,029	2,856	0.10
Thresher sharks	6,372	226	6,146	0.16
Oceanic whitetip shark	811	29	782	0.02
Silky shark	218	0	218	0.01
Other sharks	941	39	902	0.02
Total	70,812	1,513	69,299	1.82
Tunas				
Albacore	20,620	19,705	915	0.53
Bigeye tuna	137,089	134,886	2,203	3.52
Yellowfin tuna	13,816	13,609	207	0.35
Bluefin tuna	4	4	0	0.00
Skipjack tuna	18,748	18,211	537	0.48
Other tunas	56	42	14	0.00
Total	190,333	186,457	3,876	4.88
Other PMUS				
Mahimahi	94,854	92,472	2,382	2.43
Moonfish	19,725	19,508	217	0.51
Wahoo	8,804	8,764	40	0.23
Oilfish	34,102	33,239	863	0.87
Pomfret	37,785	37,528	257	0.97
Total	195,270	191,511	3,759	5.01
Total PMUS	492,429	414,208	78,221	12.63
Total Non-PMUS	3,725	1,447	2,278	0.10
Total All Species	496,154	415,655	80,499	12.72

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, 2/9/2011 2:29:58PM].

Report Coverage		Number of vessels active		118
Time Period	2010	Number of trips		482
Fishing Area	Main Hawaiian Islands EEZ	Number of sets		2,848
Trip Types	All Trip Types	Number of hooks set		6,153,321

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	435	432	3	0.07
Striped marlin	705	699	6	0.11
Shortbill spearfish	1,396	1,389	7	0.23
Swordfish	1,393	1,307	86	0.23
Other billfishes	66	66	0	0.01
Total	3,995	3,893	102	0.65
Sharks				
Blue shark	8,270	12	8,258	1.34
Mako sharks	398	222	176	0.06
Thresher sharks	386	73	313	0.06
Oceanic whitetip shark	91	13	78	0.01
Silky shark	6	0	6	0.00
Other sharks	100	13	87	0.02
Total	9,251	333	8,918	1.50
Tunas				
Albacore	1,571	1,566	5	0.26
Bigeye tuna	15,897	15,571	326	2.58
Yellowfin tuna	3,196	3,161	35	0.52
Bluefin tuna	0	0	0	0.00
Skipjack tuna	3,452	3,415	37	0.56
Other tunas	0	0	0	0.00
Total	24,116	23,713	403	3.92
Other PMUS				
Mahimahi	7,018	6,941	77	1.14
Moonfish	1,354	1,351	3	0.22
Wahoo	1,039	1,035	4	0.17
Oilfish	5,214	5,156	58	0.85
Pomfret	3,745	3,665	80	0.61
Total	18,370	18,148	222	2.99
Total PMUS	55,732	46,087	9,645	9.06
Total Non-PMUS	1,336	810	526	0.22
Total All Species	57,068	46,897	10,171	9.27

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, 2/9/2011 2:29:58PM].

Report Coverage		Number of vessels active		89
Time Period	2010	Number of trips		162
Fishing Area	Northwestern Hawaiian Islands EEZ	Number of sets		1,067
Trip Types	All Trip Types	Number of hooks set		2,154,924

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	155	154	1	0.07
Striped marlin	466	461	5	0.22
Shortbill spearfish	382	373	9	0.18
Swordfish	2,776	2,586	190	1.29
Other billfishes	7	7	0	0.00
Total	3,786	3,581	205	1.76
Sharks				
Blue shark	4,158	0	4,158	1.93
Mako sharks	274	115	159	0.13
Thresher sharks	123	6	117	0.06
Oceanic whitetip shark	68	9	59	0.03
Silky shark	0	0	0	0.00
Other sharks	5	0	5	0.00
Total	4,628	130	4,498	2.15
Tunas				
Albacore	2,281	2,275	6	1.06
Bigeye tuna	7,158	7,082	76	3.32
Yellowfin tuna	1,290	1,270	20	0.60
Bluefin tuna	2	2	0	0.00
Skipjack tuna	1,053	1,003	50	0.49
Other tunas	23	23	0	0.01
Total	11,807	11,655	152	5.48
Other PMUS				
Mahimahi	926	918	8	0.43
Moonfish	1,059	1,059	0	0.49
Wahoo	448	445	3	0.21
Oilfish	2,655	2,610	45	1.23
Pomfret	1,261	1,260	1	0.59
Total	6,349	6,292	57	2.95
Total PMUS	26,570	21,658	4,912	12.33
Total Non-PMUS	48	34	14	0.02
Total All Species	26,618	21,692	4,926	12.35

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, 2/9/2011 2:29:58PM].

Report Coverage		Number of vessels active		55
Time Period	2010	Number of trips		88
Fishing Area	Pacific Remote Island Areas (PRIA) EEZ	Number of sets		573
Trip Types	All Trip Types	Number of hooks set		1,431,420

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	334	326	8	0.23
Striped marlin	129	129	0	0.09
Shortbill spearfish	203	203	0	0.14
Swordfish	165	159	6	0.12
Other billfishes	28	28	0	0.02
Total	859	845	14	0.60
Sharks				
Blue shark	1,819	7	1,812	1.27
Mako sharks	73	10	63	0.05
Thresher sharks	636	9	627	0.44
Oceanic whitetip shark	307	2	305	0.21
Silky shark	181	0	181	0.13
Other sharks	463	0	463	0.32
Total	3,479	28	3,451	2.43
Tunas				
Albacore	779	779	0	0.54
Bigeye tuna	7,447	7,269	178	5.20
Yellowfin tuna	1,584	1,556	28	1.11
Bluefin tuna	0	0	0	0.00
Skipjack tuna	1,623	1,587	36	1.13
Other tunas	0	0	0	0.00
Total	11,433	11,191	242	7.99
Other PMUS				
Mahimahi	332	332	0	0.23
Moonfish	132	132	0	0.09
Wahoo	628	626	2	0.44
Oilfish	839	838	1	0.59
Pomfret	1,857	1,852	5	1.30
Total	3,788	3,780	8	2.65
Total PMUS	19,559	15,844	3,715	13.66
Total Non-PMUS	19	4	15	0.01
Total All Species	19,578	15,848	3,730	13.68

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, 2/9/2011 2:29:58PM].

Report Coverage		Number of vessels active		122	
Time Period	2010	Number of trips		644	
Fishing Area	Hawaiian Islands EEZ + PRIA EEZ	Number of sets		4,488	
Trip Types	All Trip Types	Number of hooks set		9,739,665	

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	924	912	12	0.09
Striped marlin	1,300	1,289	11	0.13
Shortbill spearfish	1,981	1,965	16	0.20
Swordfish	4,334	4,052	282	0.44
Other billfishes	101	101	0	0.01
Total	8,640	8,319	321	0.89
Sharks				
Blue shark	14,247	19	14,228	1.46
Mako sharks	745	347	398	0.08
Thresher sharks	1,145	88	1,057	0.12
Oceanic whitetip shark	466	24	442	0.05
Silky shark	187	0	187	0.02
Other sharks	568	13	555	0.06
Total	17,358	491	16,867	1.78
Tunas				
Albacore	4,631	4,620	11	0.48
Bigeye tuna	30,502	29,922	580	3.13
Yellowfin tuna	6,070	5,987	83	0.62
Bluefin tuna	2	2	0	0.00
Skipjack tuna	6,128	6,005	123	0.63
Other tunas	23	23	0	0.00
Total	47,356	46,559	797	4.86
Other PMUS				
Mahimahi	8,276	8,191	85	0.85
Moonfish	2,545	2,542	3	0.26
Wahoo	2,115	2,106	9	0.22
Oilfish	8,708	8,604	104	0.89
Pomfret	6,863	6,777	86	0.70
Total	28,507	28,220	287	2.93
Total PMUS	101,861	83,589	18,272	10.46
Total Non-PMUS	1,403	848	555	0.14
Total All Species	103,264	84,437	18,827	10.60

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, 2/9/2011 2:29:58PM].

Report Coverage					Number of vessels active	123
Time Period	2010				Number of trips	1,140
Fishing Area	Outside U.S. EEZ				Number of sets	13,415
Trip Types	All Trip Types				Number of hooks set	29,261,349

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	2,536	2,515	21	0.09
Striped marlin	2,629	2,610	19	0.09
Shortbill spearfish	6,464	6,431	33	0.22
Swordfish	15,369	14,488	881	0.53
Other billfishes	376	364	12	0.01
Total	27,374	26,408	966	0.94
Sharks				
Blue shark	44,338	171	44,167	1.52
Mako sharks	3,140	682	2,458	0.11
Thresher sharks	5,227	138	5,089	0.18
Oceanic whitetip shark	345	5	340	0.01
Silky shark	31	0	31	0.00
Other sharks	373	26	347	0.01
Total	53,454	1,022	52,432	1.83
Tunas				
Albacore	15,989	15,085	904	0.55
Bigeye tuna	106,587	104,964	1,623	3.64
Yellowfin tuna	7,746	7,622	124	0.26
Bluefin tuna	2	2	0	0.00
Skipjack tuna	12,620	12,206	414	0.43
Other tunas	33	19	14	0.00
Total	142,977	139,898	3,079	4.89
Other PMUS				
Mahimahi	86,578	84,281	2,297	2.96
Moonfish	17,180	16,966	214	0.59
Wahoo	6,689	6,658	31	0.23
Oilfish	25,394	24,635	759	0.87
Pomfret	30,922	30,751	171	1.06
Total	166,763	163,291	3,472	5.70
Total PMUS	390,568	330,619	59,949	13.35
Total Non-PMUS	2,322	599	1,723	0.08
Total All Species	392,890	331,218	61,672	13.43

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, 2/9/2011 2:29:58PM].

Report Coverage		Number of vessels active		28
Time Period	2010	Number of trips		108
Fishing Area	All Areas	Number of sets		1,833
Trip Types	Swordfish Targeted Trips	Number of hooks set		1,803,432

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	64	61	3	0.04
Striped marlin	255	245	10	0.14
Shortbill spearfish	70	58	12	0.04
Swordfish	16,708	15,766	942	9.26
Other billfishes	14	12	2	0.01
Total	17,111	16,142	969	9.49
Sharks				
Blue shark	16,934	41	16,893	9.39
Mako sharks	1,557	165	1,392	0.86
Thresher sharks	93	8	85	0.05
Oceanic whitetip shark	72	15	57	0.04
Silky shark	6	0	6	0.00
Other sharks	55	1	54	0.03
Total	18,717	230	18,487	10.38
Tunas				
Albacore	1,809	1,281	528	1.00
Bigeye tuna	1,579	1,502	77	0.88
Yellowfin tuna	205	202	3	0.11
Bluefin tuna	2	2	0	0.00
Skipjack tuna	59	56	3	0.03
Other tunas	19	5	14	0.01
Total	3,673	3,048	625	2.04
Other PMUS				
Mahimahi	2,602	2,510	92	1.44
Moonfish	214	114	100	0.12
Wahoo	72	68	4	0.04
Oilfish	2,633	2,075	558	1.46
Pomfret	73	60	13	0.04
Total	5,594	4,827	767	3.10
Total PMUS	45,095	24,247	20,848	25.01
Total Non-PMUS	30	17	13	0.02
Total All Species	45,125	24,264	20,861	25.02

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, 2/9/2011 2:29:58PM].

Report Coverage		Number of vessels active	
Time Period	2010		122
Fishing Area	All Areas	Number of trips	1,205
Trip Types	Tuna Targeted Trips	Number of sets	16,070
		Number of hooks set	37,197,582

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	3,396	3,366	30	0.09
Striped marlin	3,674	3,654	20	0.10
Shortbill spearfish	8,375	8,338	37	0.23
Swordfish	2,995	2,774	221	0.08
Other billfishes	463	453	10	0.01
Total	18,903	18,585	318	0.51
Sharks				
Blue shark	41,651	149	41,502	1.12
Mako sharks	2,328	864	1,464	0.06
Thresher sharks	6,279	218	6,061	0.17
Oceanic whitetip shark	739	14	725	0.02
Silky shark	212	0	212	0.01
Other sharks	886	38	848	0.02
Total	52,095	1,283	50,812	1.40
Tunas				
Albacore	18,811	18,424	387	0.51
Bigeye tuna	135,510	133,384	2,126	3.64
Yellowfin tuna	13,611	13,407	204	0.37
Bluefin tuna	2	2	0	0.00
Skipjack tuna	18,689	18,155	534	0.50
Other tunas	37	37	0	0.00
Total	186,660	183,409	3,251	5.02
Other PMUS				
Mahimahi	92,252	89,962	2,290	2.48
Moonfish	19,511	19,394	117	0.52
Wahoo	8,732	8,696	36	0.23
Oilfish	31,469	31,164	305	0.85
Pomfret	37,712	37,468	244	1.01
Total	189,676	186,684	2,992	5.10
Total PMUS	447,334	389,961	57,373	12.03
Total Non-PMUS	3,695	1,430	2,265	0.10
Total All Species	451,029	391,391	59,638	12.13

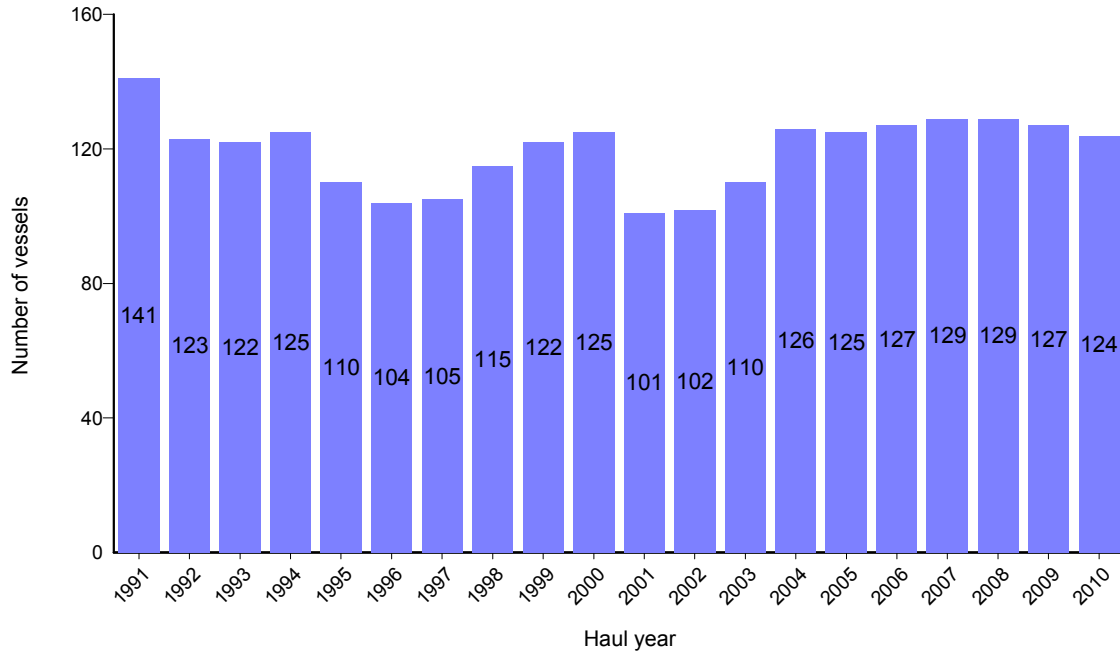


Figure 1. Number of active longline vessels based and landing in Hawaii, by year, 1991-2010. [PIFSC IMS, Longline Logbook Data, 2/10/2011 11:00:32AM]

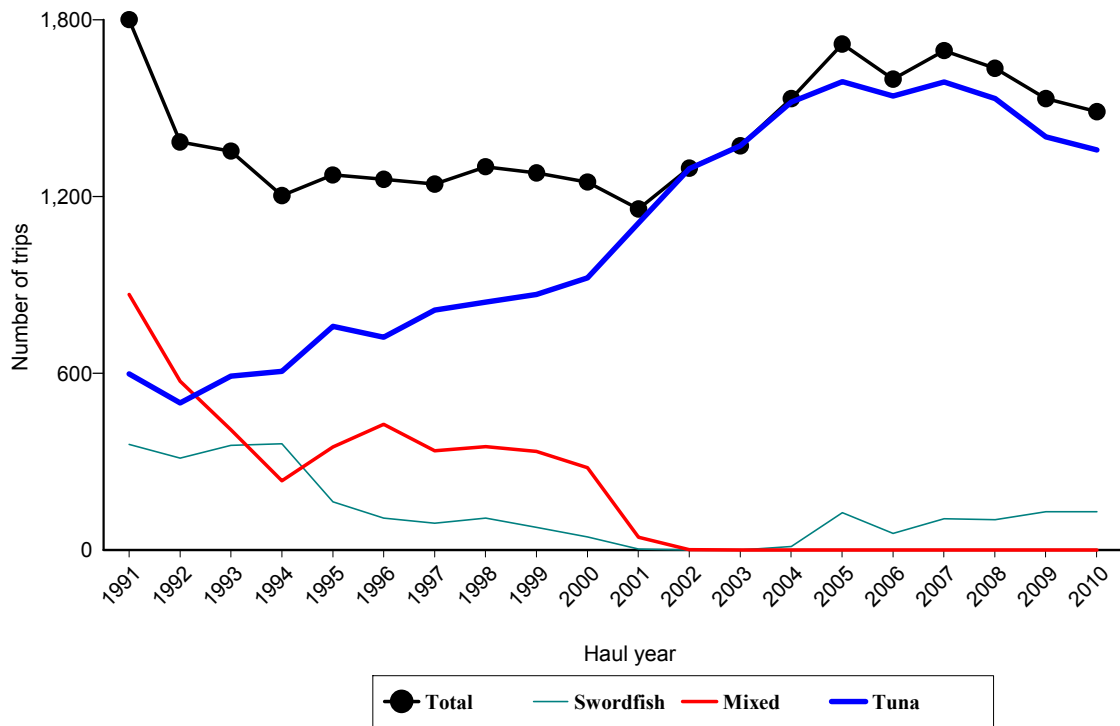


Figure 2. Number of fishing trips by longline vessels based and landing in Hawaii, by year and trip type, 1991-2010. [PIFSC IMS, Longline Logbook Data, 2/10/2011 11:00:32AM]

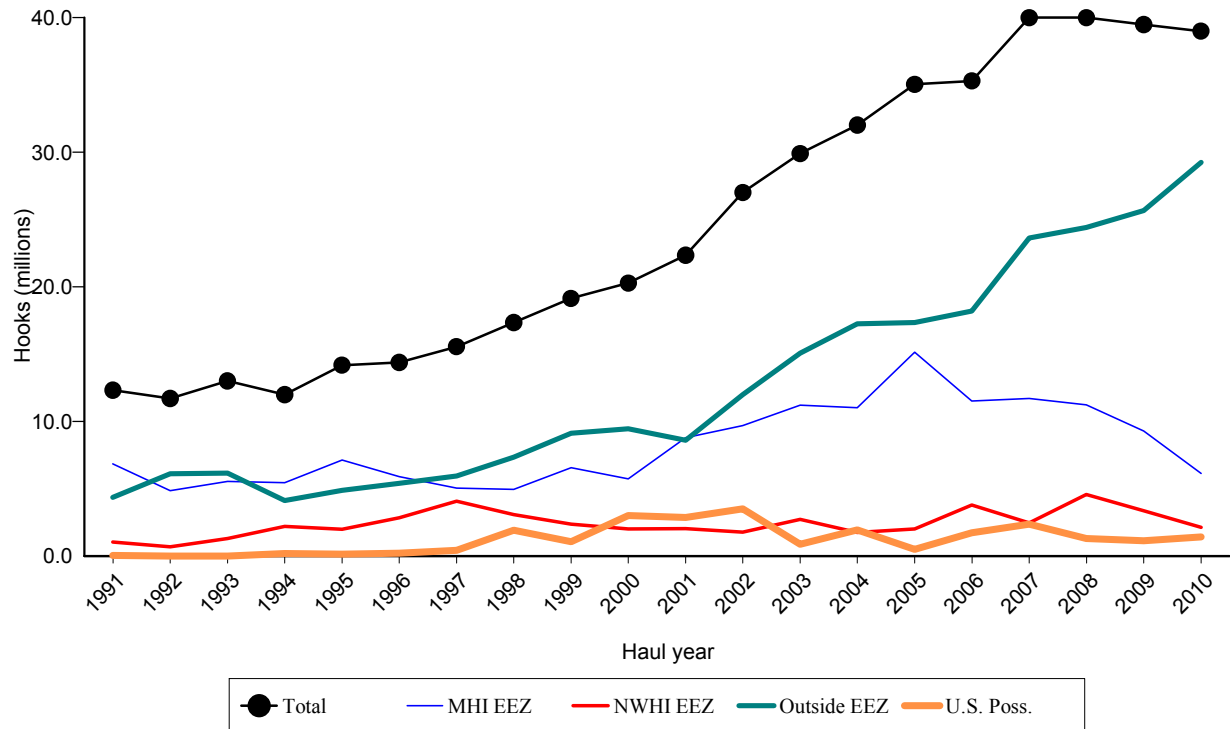


Figure 3. Number of hooks set by longline vessels based and landing in Hawaii, by year and fishing area, 1991-2010. [PIFSC IMS, Longline Logbook Data, 2/10/2011 11:00:53AM]

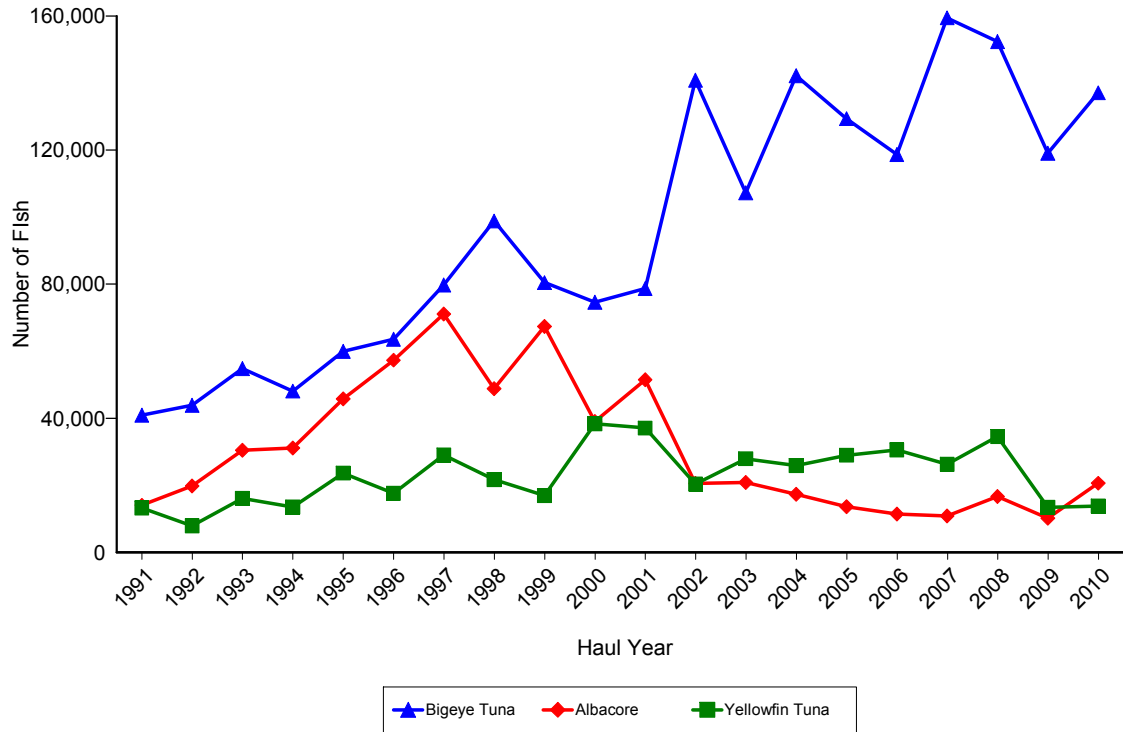


Figure 4. Annual catch of albacore, bigeye tuna, and yellowfin tuna by longline vessels based and landing in Hawaii, .1991-2010 2/10/2011 11:01:20AM]

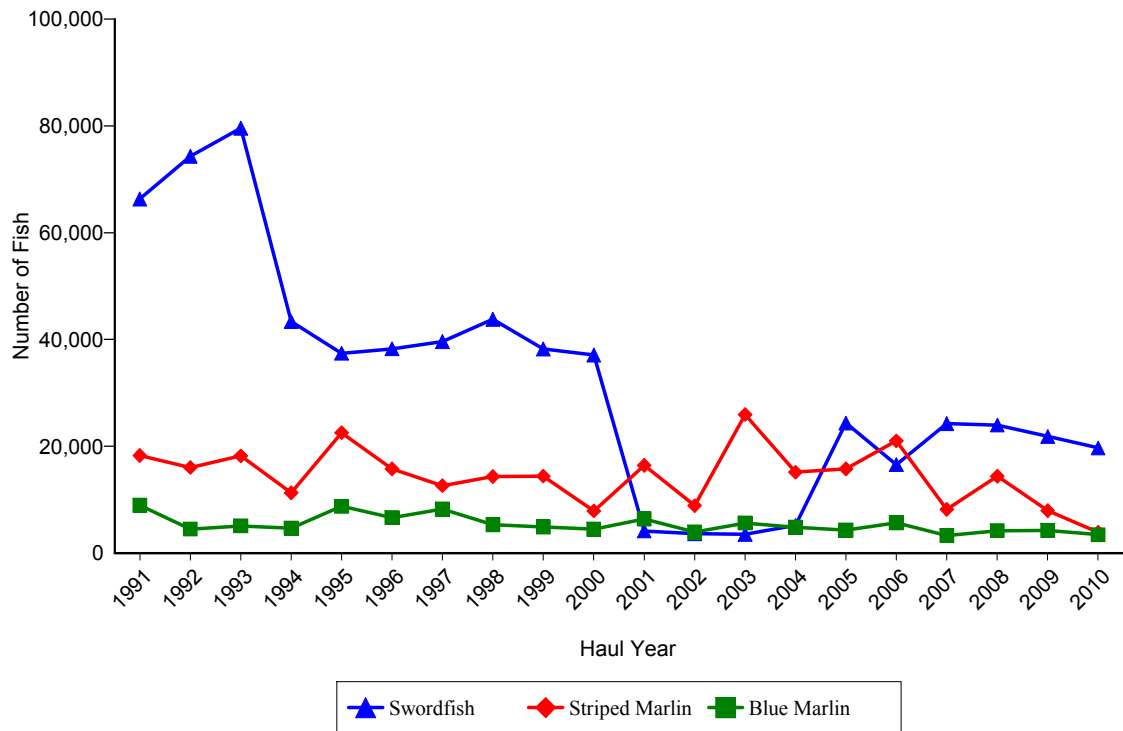


Figure 5. Annual catch of blue marlin, striped marlin, and swordfish by longline vessels based and landing in Hawaii, 1991-2010. [PIFSC IMS, Longline Logbook Data, 2/10/2011 11:01:20AM]

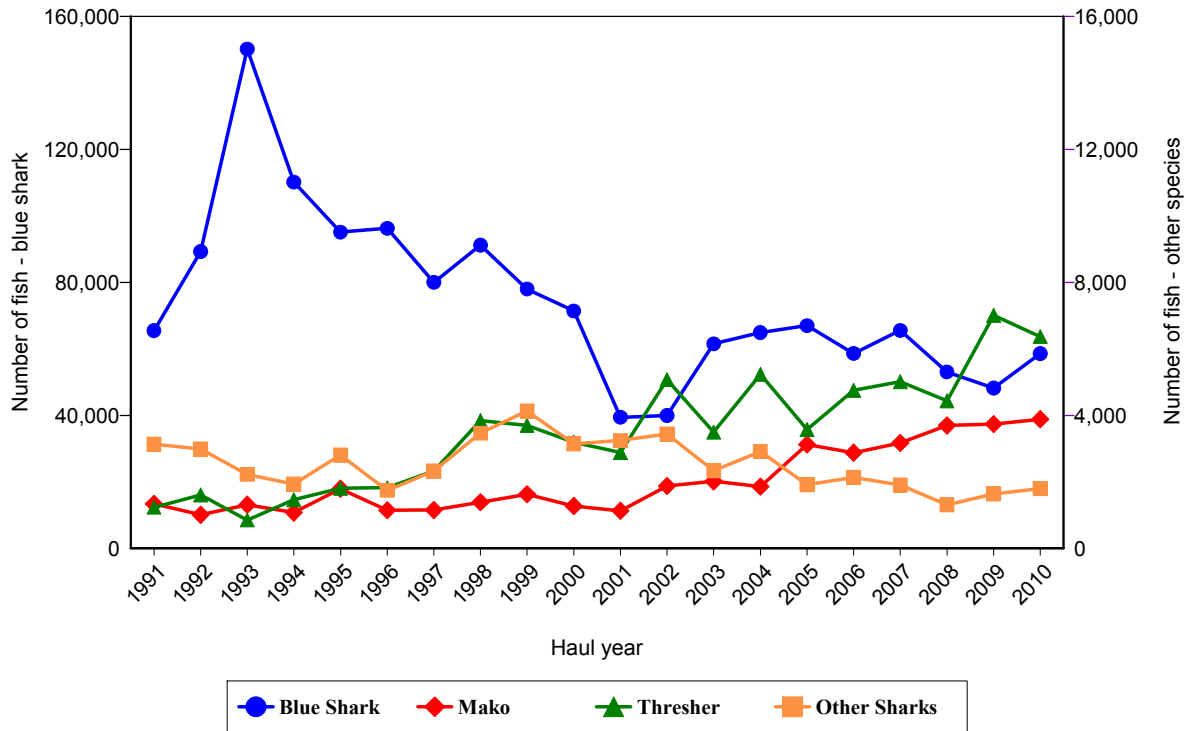


Figure 6. Annual catch of blue shark, mako shark, thresher shark, and other sharks by longline vessels based and landing in Hawaii, 1991-2010. [PIFSC IMS, Longline Logbook Data, 2/10/2011 11:01:20AM]

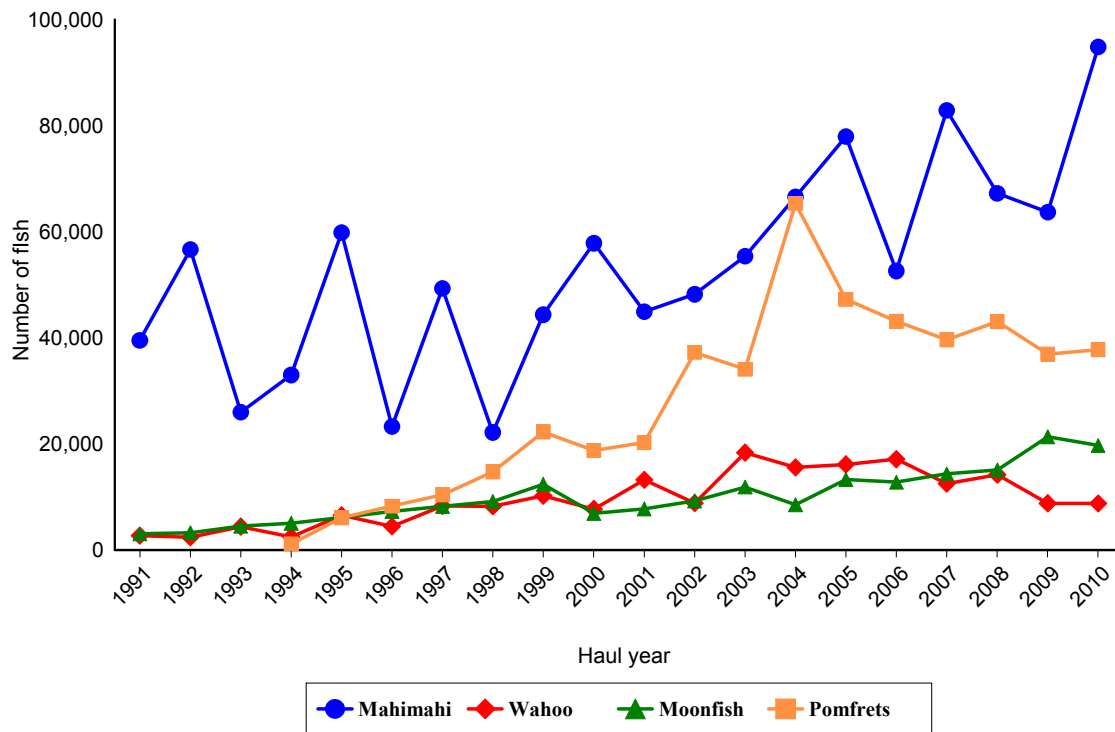


Figure 7. Annual catch of mahimahi, moonfish, pomfret, and wahoo by longline vessels based and landing in Hawaii, 1991-2010. [PIFSC IMS, Longline Logbook Data, 2/10/2011 11:01:20AM]