The Hawaii-based Longline Logbook Summary Report October-December 2007¹

Pacific Islands Fisheries Science Center Fishery Monitoring and Analysis Program

This report summarizes data on fish catch and fishing effort of Hawaii-based longline vessels during the fourth quarter of 2007 (Q4-2007), based on the date gear was hauled, as reported to the National Marine Fisheries Service in Federal logbooks of daily fishing activity submitted by vessel operators. The report covers longline operations for fishing trips completed in the fourth quarter of 2007 and most, but not all, Q4-2007 data from trips that began late in the fourth quarter and continued into the first quarter of 2008. Therefore, the Q4-2007 summary statistics reported here are preliminary. When data for all fourth quarter longline operations are available, tables and graphs of summary statistics will be updated and published in the online version of this report at http://www.pifsc.noaa.gov/fmsd/reports.php.

In Q4-2007, the shallow-set fishery targeting swordfish continued to operate under annual limits on allowed interactions with loggerhead and leatherback sea turtles and the total number of shallow sets. Similarly, the deepset tuna fishery operated under an annual quota of 500 metric tons for U.S. longline catches of bigeye tuna east of 150° W longitude. The quota established under Resolution C-06-02 of the Inter-American Tropical Tuna Commission as a measure to conserve bigeye tuna in the eastern Pacific Ocean. None of the limits had been reached by the end of the fourth quarter.

During Q4-2007, 124 vessels were active in the Hawaii-based fleet, 4 more than in the Q4-2006 (Table 1, Fig. 1). They made 474 longline trips (13 more than in Q4-2006), including 466 deep-set gear to target tuna (5 more than in Q4-2006) and 8 using shallow-set gear to target swordfish (there were no shallow-set operations in Q4-2006; Fig. 2). A record 12.2 million hooks were deployed in Q4-2007, 1.3 million more than in Q4-2006 (Fig. 3). They fished mainly in the Exclusive Economic Zone (EEZ) of the Main Hawaiian Islands (MHI) (53% of total hooks set) followed by waters outside the U.S. EEZ (38%) and waters within the EEZ of the Northwestern Hawaiian Islands (NWHI) (9%).

In Q4-2007, the Hawaii longline fleet caught a record 61,511 bigeye tuna (Fig. 4); 50% were caught in the MHI EEZ, 39% outside the U.S. EEZ, and 11% in the NWHI EEZ. The bigeye tuna catch-per-unit-of-effort (CPUE) on tunatargeted trips was 5.1 fish per 1000 hooks; exceeding last year's CPUE of 4.4 (Fig. 5). The albacore catch and CPUE on tuna-targeted trips in Q4-2007 were 4,278 fish and 0.33 fish per 1000 hooks, respectively (Figs. 6-7). The yellowfin

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¹ PIFSC Data Report DR-08-002 Issued 5 March 2008

tuna catch (14,489 fish) in Q4-2004 established a fourth quarter record and the yellowfin CPUE (1.2 fish per 1000 hooks) was higher than average for the quarter (Figs. 8-9).

The Q4-2007 swordfish catch was 1,790 fish, substantially higher than in Q4-2006 (Fig. 10). The bigger swordfish catch is attributed mostly to the 73 shallow sets made in Q4-2007, which had a much higher catch rate of swordfish than the deep sets. No shallow sets were permitted in Q4-2006 because the swordfish fleet had reached its limit on loggerhead interactions in the first quarter. In Q4-2007, swordfish CPUE on shallow-set swordfish-targeted trips was 14.5 fish per 1000 hooks (Fig. 11).

The Q4-2007 striped marlin catch (1,348 fish) and CPUE on tuna-targeted trips (0.11 fish per 1000 hooks) were lower than in Q4-2006 by 85% and 86%, respectively (Figs. 12-13). Similarly, the Q4-2007 blue marlin catch (922 fish) and CPUE on tuna-targeted trips (0.08 fish per 1000 hooks) were lower than in Q4-2006 by 41% and 43% (Figs. 14-15).

The fleet caught 26,936 sharks in Q4-2007, of which 593 (2%) were kept. Blue shark comprised 92% of the total shark catch (24,698 fish) (Fig. 16). Blue shark CPUE on shallow-set swordfish-targeted trips was 19.7 fish per 1000 hooks (Fig. 17).

In Q4-2007, the Hawaii longline catch of other key pelagic species included 26,931 mahimahi (Fig. 18) with a CPUE of 2.2 fish per 1000 hooks on tuna-targeted trips (Fig. 19); 3,280 moonfish (Fig. 20) with a CPUE of 0.27 fish per 1000 hooks on tuna-targeted trips (Fig. 21); 10,085 pomfret (Fig. 22) with a CPUE of 0.8 fish per 1000 hooks on tuna-targeted trips (Fig. 23); and 3,125 wahoo (Fig. 24) with a CPUE of 0.26 fish per 1000 hooks on tuna-targeted trips (Fig. 25). A high percentage of the catch of these species was kept.

The summary statistics in Table 1 are based on logbook records from all fishing areas combined and all types of longline trips—those targeting swordfish and those aimed at catching tuna. Hence, the CPUE figures in Table 1 differ from those reported above, which were calculated using data exclusively from tunatargeted trips or swordfish-targeted trips, depending on the species of interest.

In addition to longline statistics for all fishing areas combined, Q4-2007 summary catch and effort were compiled by several geographical sub-areas including: the MHI EEZ; the NWHI EEZ; the EEZ of the Pacific Remote Islands Areas (PRIA, consisting of the U.S. possessions Wake Island, Jarvis Island, Howland Island, Baker Island, Kingman Reef, Palmyra Atoll, and Johnston Atoll), the combined EEZ of MHI, NWHI and PRIA; and waters outside the U.S. EEZ. These statistics are presented in Tables 2-6. Q4-2007 summary statistics for the entire fishing area are also presented for each distinct trip type: shallow-set swordfish-targeted trips (Table 7) and deep-set tuna-targeted trips (Table 8).

Preliminary annual summary fishery statistics for 2007 are also presented in this report (Tables 9-16). In addition, graphs of annual Hawaii longline fishing effort and catch by species for the years 1991-2007 are presented in Figs. A1-A7.

During 2007, 129 vessels were active in the Hawaii-based longline fleet, 2 more than in 2006 (Table 9, Fig. A1). Fleet size has remained relatively constant for the past four years. During 2007, longline fishers made 1,515 longline trips, 123 more than in 2006, including 1,426 trips using deep-set gear to target tuna (up 91 trips from 2006) and 89 using shallow-set gear to target swordfish (up 32 trips) (Tables 15-16, Fig. A2). In 2007, a record 40.2 million hooks were deployed, 5.0 million more than in 2006 (Fig. A3). The number of hooks set has increased steadily since 1994. A growing proportion of hooks are being set outside the U.S. EEZ (59% of total hooks set in 2007; Table 14).

In 2007, the Hawaii longline fleet caught a record 159,389 bigeye tuna (Table 9, Fig. A4). The trend of bigeye tuna catches remains upward (Fig. A4). In contrast, albacore catches have been declining following a peak in 1997, recording a record low of 10,844 in 2007. The catch of yellowfin tuna in 2007 was 26,280 fish. Yellowfin catches have remained steady for the past several years.

The 2007 swordfish catch was 24,271 fish, 47% higher than in 2006 (Table 10, Fig. A5). The larger swordfish catch is attributed to the longer swordfish season in 2007; in 2006, swordfish operations were halted in March when shallow-set limit on loggerhead interactions was reached during the first quarter. The 2007 striped marlin catch was 8,203 fish, a decline of 61% from 2006 catch; it has varied considerably over the 17-year period of logbook records, but without a discernable trend. Similarly, the 2007 blue marlin catch of 3,290 fish was down 34% from its 2006 level.

The fleet caught 75,725 sharks in 2007, of which 3% were kept (Table 9). Blue shark comprised 86% of the total shark catch (65,509 fish). Catches of blue shark, make shark, and thresher shark have trended higher from the late 1990s (Fig. A6). In 2007, the Hawaii longline catch of other key pelagic species included a record 82,870 mahimahi, 39,639 pomfret, 27,201 oilfish, 14,371 moonfish, and 12,555 wahoo (Table 9) Catches of these important species also have increased gradually from lower levels observed in the late 1990s (Fig. A7).

All tables and graphs provided in this report are available on the PIFSC Web site at http://www.pifsc.noaa.gov/fmsd/reports.php. The Web site also has an archive of quarterly and annual summary tables of fish catch and fishing effort from 1991 to 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.

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Table 1. Quarterly summary report of fish 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, 2/13/2008 1:36:16PM]

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Time Period 4th Quarter 2007 Fishing Area All Areas Trip Types All Trip Types

Number of vessels active	124
Number of trips	474
Number of sets	5,563
Number of hooks set	12,218,171

Pelagic Management Unit	Number	Number	Number	CPUE - Number
Species (PMUS)	Caught	Kept	Released	Caught per 1000 hooks
Billfishes				
Blue marlin	922	914	8	0.08
Striped marlin	1,348	1,316	32	0.11
Shortbill spearfish	4,331	4,263	68	0.35
Swordfish	1,790	1,487	303	0.15
Other billfishes	176	171	5	0.01
Total	8,567	8,151	416	0.70
Sharks				
Blue shark	24,698	64	24,634	2.02
Mako sharks	665	297	368	0.05
Thresher sharks	1,199	194	1,005	0.10
Oceanic whitetip shark	218	27	191	0.02
Silky shark	31		31	0.00
Other sharks	125	11	114	0.01
Total	26,936	593	26,343	2.20
Tunas				
Albacore	4,278	4,121	157	0.35
Bigeye tuna	61,511	59,451	2,060	5.03
Yellowfin	14,489	13,835	654	1.19
Skipjack tuna	9,466	8,560	906	0.77
Other tunas	19	19		0.00
Total	89,763	85,986	3,777	7.35
Other PMUS				
Mahimahi	26,931	26,501	430	2.20
Moonfish	3,280	3,260	20	0.27
Wahoo	3,125	3,096	29	0.26
Oilfish	6,813	6,686	127	0.56
Pomfret	10,085	9,942	143	0.83
Total	50,234	49,485	749	4.11
Total PMUS	175,500	144,215	31,285	14.36
Total Non-PMUS	941	152	789	0.08
Total All Species	176,441	144,367	32,074	14.44

Table 2. Quarterly summary report of fish 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, 2/13/2008 1:44:09PM]

Time Period 4th Quarter 2007

Fishing Area Main Hawaiian Islands EEZ

Number of vessels active	119
Number of trips	347
Number of sets	2,918
Number of hooks set	6,448,717

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	207	205	2	0.03
Striped marlin	679	666	13	0.11
Shortbill spearfish	2,018	2,004	14	0.31
Swordfish	381	288	93	0.06
Other billfishes	44	44		0.01
Total	3,329	3,207	122	0.52
Sharks	,	,		
Blue shark	8,783	23	8,760	1.36
Mako sharks	375	215	160	0.06
Thresher sharks	614	107	507	0.10
Oceanic whitetip shark	75	12	63	0.01
Silky shark	3		3	0.00
Other sharks	79	8	71	0.01
Total	9,929	365	9,564	1.54
Гunas				
Albacore	524	523	1	0.08
Bigeye tuna	30,870	29,809	1,061	4.79
Yellowfin	3,125	2,816	309	0.48
Skipjack tuna	3,443	3,243	200	0.53
Other tunas	4	4		0.00
Total	37,966	36,395	1,571	5.89
Other PMUS				
Mahimahi	16,147	15,868	279	2.50
Moonfish	1,382	1,380	2	0.21
Wahoo	914	912	2	0.14
Oilfish	4,079	4,012	67	0.63
Pomfret	4,230	4,166	64	0.66
Total	26,752	26,338	414	4.15
Total PMUS	77,976	66,305	11,671	12.09
Гotal Non-PMUS	770	42	728	0.12
Total All Species	78,746	66,347	12,399	12.21

Table 3. Quarterly summary report of fish 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, 2/13/2008 1:50:05PM]

Time Period 4th Quarter 2007

Fishing Area Northwestern Hawaiian Islands EEZ

Number of vessels active	65
Number of trips	85
Number of sets	496
Number of hooks set	1,107,652

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	45	42	3	0.04
Striped marlin	122	117	5	0.11
Shortbill spearfish	312	311	1	0.28
Swordfish	92	47	45	0.08
Other billfishes	12	12		0.01
Total	583	529	54	0.53
Sharks				
Blue shark	4,164	15	4,149	3.76
Mako sharks	46	19	27	0.04
Thresher sharks	144	31	113	0.13
Oceanic whitetip shark	50	2	48	0.05
Silky shark	5		5	0.00
Other sharks	4		4	0.00
Total	4,413	67	4,346	3.98
Γunas				
Albacore	310	304	6	0.28
Bigeye tuna	6,487	6,087	400	5.86
Yellowfin	877	782	95	0.79
Skipjack tuna	1,564	1,416	148	1.41
Total	9,238	8,589	649	8.34
Other PMUS				
Mahimahi	2,001	1,963	38	1.81
Moonfish	366	364	2	0.33
Wahoo	174	173	1	0.16
Oilfish	823	821	2	0.74
Pomfret	653	645	8	0.59
Total	4,017	3,966	51	3.63
Total PMUS	18,251	13,151	5,100	16.48
Total Non-PMUS	14	13	1	0.01
Total All Species	18,265	13,164	5,101	16.49

Table 4. Quarterly summary report of fish 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, 2/13/2008 1:55:59PM]

Time Period 4th Quarter 2007

Fishing Area Pacific Remote Island Areas (PRIA) EEZ

Number of vessels active	6
Number of trips	6
Number of sets	26
Number of hooks set	66,690

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	22	22		0.33
Striped marlin	7	7		0.10
Shortbill spearfish	18	18		0.27
Swordfish	2	2		0.03
Other billfishes	3	3		0.04
Total	52	52		0.78
Sharks				
Blue shark	360		360	5.40
Mako sharks	1		1	0.01
Thresher sharks	39		39	0.58
Oceanic whitetip shark	6		6	0.09
Silky shark	1		1	0.01
Total	407		407	6.10
Tunas				
Albacore	70	70		1.05
Bigeye tuna	416	405	11	6.24
Yellowfin	349	347	2	5.23
Skipjack tuna	145	80	65	2.17
Total	980	902	78	14.69
Other PMUS				
Mahimahi	107	107		1.60
Moonfish	18	18		0.27
Wahoo	61	61		0.91
Oilfish	28	28		0.42
Pomfret	46	46		0.69
Total	260	260		3.90
Total PMUS	1,699	1,214	485	25.48
Total Non-PMUS	2	2		0.03
Total All Species	1,701	1,216	485	25.51

Table 5. Quarterly summary report of fish 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, 2/13/2008 2:01:55PM]

Time Period 4th Quarter 2007

Fishing Area Hawaiian Islands EEZ + PRIA EEZ

Number of vessels active	124
Number of trips	392
Number of sets	3,440
Number of hooks set	7.623.059

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	274	269	5	0.04
Striped marlin	808	790	18	0.11
Shortbill spearfish	2,348	2,333	15	0.31
Swordfish	475	337	138	0.06
Other billfishes	59	59		0.01
Total	3,964	3,788	176	0.52
Sharks	,	ŕ		
Blue shark	13,307	38	13,269	1.75
Mako sharks	422	234	188	0.06
Thresher sharks	797	138	659	0.10
Oceanic whitetip shark	131	14	117	0.02
Silky shark	9		9	0.00
Other sharks	83	8	75	0.01
Total	14,749	432	14,317	1.93
Гunas				
Albacore	904	897	7	0.12
Bigeye tuna	37,773	36,301	1,472	4.96
Yellowfin	4,351	3,945	406	0.57
Skipjack tuna	5,152	4,739	413	0.68
Other tunas	4	4		0.00
Total	48,184	45,886	2,298	6.32
Other PMUS				
Mahimahi	18,255	17,938	317	2.39
Moonfish	1,766	1,762	4	0.23
Wahoo	1,149	1,146	3	0.15
Oilfish	4,930	4,861	69	0.65
Pomfret	4,929	4,857	72	0.65
Total	31,029	30,564	465	4.07
Total PMUS	97,926	80,670	17,256	12.85
Гotal Non-PMUS	786	57	729	0.10
Total All Species	98,712	80,727	17,985	12.95

Table 6. Quarterly summary report of fish 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, 2/13/2008 2:07:51PM]

Time Period 4th Quarter 2007
Fishing Area Outside U.S. EEZ
Trip Types All Trip Types

Number of vessels active	121
Number of trips	282
Number of sets	2,123
Number of hooks set	4,595,112

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes		1		
Blue marlin	648	645	3	0.14
Striped marlin	540	526	14	0.12
Shortbill spearfish	1,983	1,930	53	0.43
Swordfish	1,315	1,150	165	0.29
Other billfishes	117	112	5	0.03
Total	4,603	4,363	240	1.00
Sharks	,)	-	
Blue shark	11,391	26	11,365	2.48
Mako sharks	243	63	180	0.05
Thresher sharks	402	56	346	0.09
Oceanic whitetip shark	87	13	74	0.02
Silky shark	22		22	0.00
Other sharks	42	3	39	0.01
Total	12,187	161	12,026	2.65
Tunas	, -		,	
Albacore	3,374	3,224	150	0.73
Bigeye tuna	23,738	23,150	588	5.17
Yellowfin	10,138	9,890	248	2.21
Skipjack tuna	4,314	3,821	493	0.94
Other tunas	15	15		0.00
Total	41,579	40,100	1,479	9.05
Other PMUS	,	,	,	
Mahimahi	8,676	8,563	113	1.89
Moonfish	1,514	1,498	16	0.33
Wahoo	1,976	1,950	26	0.43
Oilfish	1,883	1,825	58	0.41
Pomfret	5,156	5,085	71	1.12
Total	19,205	18,921	284	4.18
Total PMUS	77,574	63,545	14,029	16.88
Total Non-PMUS	155	95	60	0.03
Total All Species	77,729	63,640	14,089	16.92

Table 7. Quarterly summary report of fish 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, 2/13/2008 2:13:49PM]

Time Period 4th Quarter 2007
Fishing Area All Areas
Trip Types Swordfish Targeted Trips

Number of vessels active	7
Number of trips	8
Number of sets	73
Number of hooks set	63,920

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	1	1		0.02
Striped marlin	6	3	3	0.09
Swordfish	924	882	42	14.46
Total	931	886	45	14.57
Sharks				
Blue shark	1,261		1,261	19.73
Mako sharks	52	2	50	0.81
Total	1,313	2	1,311	20.54
Γunas				
Albacore	225	91	134	3.52
Bigeye tuna	13	10	3	0.20
Skipjack tuna	1	1		0.02
Total	239	102	137	3.74
Other PMUS				
Mahimahi	1	1		0.02
Moonfish	4	2	2	0.06
Oilfish	62	44	18	0.97
Pomfret	10	9	1	0.16
Total	77	56	21	1.20
Total PMUS	2,560	1,046	1,514	40.05
Total All Species	2,560	1,046	1,514	40.05

Table 8. Quarterly summary report of fish 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, 2/13/2008 2:19:47PM]

Time Period 4th Quarter 2007

Fishing Area All Areas

Trip Types Tuna Targeted Trips

Number of vessels active	124
Number of trips	466
Number of sets	5,490
Number of hooks set	12 154 251

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	921	913	8	0.08
Striped marlin	1,342	1,313	29	0.11
Shortbill spearfish	4,331	4,263	68	0.36
Swordfish	866	605	261	0.07
Other billfishes	176	171	5	0.01
Total	7,636	7,265	371	0.63
Sharks	•	,		
Blue shark	23,437	64	23,373	1.93
Mako sharks	613	295	318	0.05
Thresher sharks	1,199	194	1,005	0.10
Oceanic whitetip shark	218	27	191	0.02
Silky shark	31		31	0.00
Other sharks	125	11	114	0.01
Total	25,623	591	25,032	2.11
Tunas				
Albacore	4,053	4,030	23	0.33
Bigeye tuna	61,498	59,441	2,057	5.06
Yellowfin	14,489	13,835	654	1.19
Skipjack tuna	9,465	8,559	906	0.78
Other tunas	19	19		0.00
Total	89,524	85,884	3,640	7.37
Other PMUS				
Mahimahi	26,930	26,500	430	2.22
Moonfish	3,276	3,258	18	0.27
Wahoo	3,125	3,096	29	0.26
Oilfish	6,751	6,642	109	0.56
Pomfret	10,075	9,933	142	0.83
Total	50,157	49,429	728	4.13
Total PMUS	172,940	143,169	29,771	14.23
Гotal Non-PMUS	941	152	789	0.08
Total All Species	173,881	143,321	30,560	14.31

Table 9. Yearly summary report of fish catch statistics for U.S. longline vessels landing in Hawaii as derived from NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC IMS, Longline Logbook Data, 2/22/2008 2:35:21PM]

Time Period 2007
Fishing Area All Areas
Trip Types All Trip Types

Number of vessels active	129
Number of trips	1,515
Number of sets	19,379
Number of hooks set	40,197,926

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	3,290	3,260	30	0.08
Striped marlin	8,203	8,088	115	0.08
Shortbill spearfish	10,036	9,913	123	0.25
Swordfish	24,271	21,756	2,515	0.60
Other billfishes	517	509	2,313	0.01
Total	46,317	43,526	2,791	1.15
Sharks	< - -00	4-0	(- 22 (4.60
Blue shark	65,509	173	65,336	1.63
Mako sharks	3,199	1,484	1,715	0.08
Thresher sharks	5,017	520	4,497	0.12
Oceanic whitetip shark	1,188	88	1,100	0.03
Silky shark	136	4	132	0.00
Other sharks	676	36	640	0.02
Total	75,725	2,305	73,420	1.88
Tunas				
Albacore	10,844	10,270	574	0.27
Bigeye tuna	159,389	154,945	4,444	3.97
Yellowfin	26,280	25,322	958	0.65
Bluefin tuna	2	2		0.00
Skipjack tuna	14,261	13,099	1,162	0.35
Other tunas	36	34	2	0.00
Total	210,812	203,672	7,140	5.24
Other PMUS				
Mahimahi	82,870	81,211	1,659	2.06
Moonfish	14,371	14,293	78	0.36
Wahoo	12,555	12,483	72	0.31
Oilfish	27,201	26,497	704	0.68
Pomfret	39,639	39,307	332	0.99
Total	176,636	173,791	2,845	4.39
Total PMUS	509,490	423,294	86,196	12.67
Total Non-PMUS	4,697	1,094	3,603	0.12
Total All Species	514,187	424,388	89,799	12.79

Table 10. Yearly summary report of fish catch statistics for U.S. longline vessels landing in Hawaii as derived from NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC IMS, Longline Logbook Data, 2/22/2008 2:40:39PM]

Time Period 2007

Fishing Area Main Hawaiian Islands EEZ

Number of vessels active	128
Number of trips	830
Number of sets	5,540
Number of hooks set	11,701,202

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	634	625	9	0.05
Striped marlin	2,401	2,374	27	0.21
Shortbill spearfish	3,143	3,117	26	0.27
Swordfish	1,924	1,738	186	0.16
Other billfishes	107	106	1	0.01
Total	8,209	7,960	249	0.70
Sharks				
Blue shark	14,490	51	14,439	1.24
Mako sharks	807	513	294	0.07
Thresher sharks	1,095	194	901	0.09
Oceanic whitetip shark	174	27	147	0.01
Silky shark	5		5	0.00
Other sharks	131	18	113	0.01
Total	16,702	803	15,899	1.43
Гunas				
Albacore	1,236	1,235	1	0.11
Bigeye tuna	43,840	42,414	1,426	3.75
Yellowfin	6,127	5,751	376	0.52
Skipjack tuna	4,763	4,541	222	0.41
Other tunas	7	7		0.00
Total	55,973	53,948	2,025	4.78
Other PMUS				
Mahimahi	21,588	21,263	325	1.84
Moonfish	2,946	2,939	7	0.25
Wahoo	2,861	2,853	8	0.24
Oilfish	7,667	7,571	96	0.66
Pomfret	10,002	9,912	90	0.85
Total	45,064	44,538	526	3.85
Total PMUS	125,948	107,249	18,699	10.76
Total Non-PMUS	1,944	659	1,285	0.17
Total All Species	127,892	107,908	19,984	10.93

Table 11. Yearly summary report of fish catch statistics for U.S. longline vessels landing in Hawaii as derived from NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC IMS, Longline Logbook Data, 2/22/2008 2:45:59PM]

Time Period 2007

Fishing Area Northwestern Hawaiian Islands EEZ

Number of vessels active	98
Number of trips	211
Number of sets	1,188
Number of hooks set	2,473,538

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
. , ,	Caugiii	Кері	Released	Caught per 1000 hooks
Billfishes				
Blue marlin	161	155	6	0.07
Striped marlin	1,212	1,189	23	0.49
Shortbill spearfish	721	717	4	0.29
Swordfish	2,385	1,818	567	0.96
Other billfishes	16	16		0.01
Total	4,495	3,895	600	1.82
Sharks				
Blue shark	6,799	18	6,781	2.75
Mako sharks	193	90	103	0.08
Thresher sharks	214	45	169	0.09
Oceanic whitetip shark	142	2	140	0.06
Silky shark	11		11	0.00
Other sharks	56		56	0.02
Total	7,415	155	7,260	3.00
Гunas				
Albacore	966	960	6	0.39
Bigeye tuna	11,390	10,835	555	4.60
Yellowfin	1,973	1,846	127	0.80
Skipjack tuna	1,918	1,753	165	0.78
Total	16,247	15,394	853	6.57
Other PMUS				
Mahimahi	3,011	2,948	63	1.22
Moonfish	927	924	3	0.37
Wahoo	476	470	6	0.19
Oilfish	2,640	2,528	112	1.07
Pomfret	1,873	1,851	22	0.76
Total	8,927	8,721	206	3.61
Total PMUS	37,084	28,165	8,919	14.99
Total Non-PMUS	183	22	161	0.07
Total All Species	37,267	28,187	9,080	15.07

Table 12. Yearly summary report of fish catch statistics for U.S. longline vessels landing in Hawaii as derived from NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC IMS, Longline Logbook Data, 2/22/2008 2:50:01PM]

Time Period 2007

Fishing Area Pacific Remote Island Areas (PRIA) EEZ

Number of vessels active	83
Number of trips	144
Number of sets	1,083
Number of hooks set	2,387,385

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	426	419	7	0.18
Striped marlin	383	378	5	0.16
Shortbill spearfish	526	522	4	0.22
Swordfish	248	229	19	0.10
Other billfishes	41	41		0.02
Total	1,624	1,589	35	0.68
Sharks	,	,		
Blue shark	2,509	17	2,492	1.05
Mako sharks	83	27	56	0.03
Thresher sharks	898	35	863	0.38
Oceanic whitetip shark	633	34	599	0.27
Silky shark	88	3	85	0.04
Other sharks	230	8	222	0.10
Total	4,441	124	4,317	1.86
Гunas				
Albacore	1,432	1,429	3	0.60
Bigeye tuna	14,509	14,071	438	6.08
Yellowfin	3,257	3,163	94	1.36
Skipjack tuna	1,044	902	142	0.44
Total	20,242	19,565	677	8.48
Other PMUS				
Mahimahi	870	865	5	0.36
Moonfish	137	137		0.06
Wahoo	1,677	1,669	8	0.70
Oilfish	881	874	7	0.37
Pomfret	1,613	1,592	21	0.68
Total	5,178	5,137	41	2.17
Γotal PMUS	31,485	26,415	5,070	13.19
Total Non-PMUS	83	24	59	0.03
Total All Species	31,568	26,439	5,129	13.22

Table 13. Yearly summary report of fish catch statistics for U.S. longline vessels landing in Hawaii as derived from NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC IMS, Longline Logbook Data, 2/22/2008 2:53:40PM]

Time Period 2007

Fishing Area Hawaiian Islands EEZ + PRIA EEZ

Number of vessels active	129
Number of trips	1,040
Number of sets	7,811
Number of hooks set	16.562.125

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	1,221	1,199	22	0.07
Striped marlin	3,996	3,941	55	0.24
Shortbill spearfish	4,390	4,356	34	0.27
Swordfish	4,557	3,785	772	0.28
Other billfishes	164	163	1	0.01
Total	14,328	13,444	884	0.87
Sharks				
Blue shark	23,798	86	23,712	1.44
Mako sharks	1,083	630	453	0.07
Thresher sharks	2,207	274	1,933	0.13
Oceanic whitetip shark	949	63	886	0.06
Silky shark	104	3	101	0.01
Other sharks	417	26	391	0.03
Total	28,558	1,082	27,476	1.72
Гunas	,	•	,	
Albacore	3,634	3,624	10	0.22
Bigeye tuna	69,739	67,320	2,419	4.21
Yellowfin	11,357	10,760	597	0.69
Skipjack tuna	7,725	7,196	529	0.47
Other tunas	7	7		0.00
Total	92,462	88,907	3,555	5.58
Other PMUS				
Mahimahi	25,469	25,076	393	1.54
Moonfish	4,010	4,000	10	0.24
Wahoo	5,014	4,992	22	0.30
Oilfish	11,188	10,973	215	0.68
Pomfret	13,488	13,355	133	0.81
Total	59,169	58,396	773	3.57
Total PMUS	194,517	161,829	32,688	11.74
Total Non-PMUS	2,210	705	1,505	0.13
Total All Species	196,727	162,534	34,193	11.88

Table 14. Yearly summary report of fish catch statistics for U.S. longline vessels landing in Hawaii as derived from NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC IMS, Longline Logbook Data, 2/22/2008 2:57:33PM]

Time Period 2007

Fishing Area Outside U.S. EEZ
Trip Types All Trip Types

Number of vessels active	127
Number of trips	1,131
Number of sets	11,568
Number of hooks set	23,635,801

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	2,069	2,061	8	0.09
Striped marlin	4,207	4,147	60	0.18
Shortbill spearfish	5,646	5,557	89	0.24
Swordfish	19,714	17,971	1,743	0.83
Other billfishes	353	346	7	0.01
Total	31,989	30,082	1,907	1.35
Sharks	• 1,2 0,2	20,002	2,500	1.00
Blue shark	41,711	87	41,624	1.76
Mako sharks	2,116	854	1,262	0.09
Thresher sharks	2,810	246	2,564	0.12
Oceanic whitetip shark	239	25	214	0.01
Silky shark	32	1	31	0.00
Other sharks	259	10	249	0.01
Total	47,167	1,223	45,944	2.00
Tunas	, -	, -	-)-	
Albacore	7,210	6,646	564	0.31
Bigeye tuna	89,650	87,625	2,025	3.79
Yellowfin	14,923	14,562	361	0.63
Bluefin tuna	2	2		0.00
Skipjack tuna	6,536	5,903	633	0.28
Other tunas	29	27	2	0.00
Total	118,350	114,765	3,585	5.01
Other PMUS	,	,	,	
Mahimahi	57,401	56,135	1,266	2.43
Moonfish	10,361	10,293	68	0.44
Wahoo	7,541	7,491	50	0.32
Oilfish	16,013	15,524	489	0.68
Pomfret	26,151	25,952	199	1.11
Total	117,467	115,395	2,072	4.97
Total PMUS	314,973	261,465	53,508	13.33
Total Non-PMUS	2,487	389	2,098	0.11
Total All Species	317,460	261,854	55,606	13.43

Table 15. Yearly summary report of fish catch statistics for U.S. longline vessels landing in Hawaii as derived from NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC IMS, Longline Logbook Data, 3/3/2008 11:35:25AM]

Time Period 2007 Fishing Area All Areas

Trip Types Swordfish Targeted Trips

Number of vessels active	28
Number of trips	89
Number of sets	1,570
Number of hooks set	1 371 949

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes		1		
Blue marlin	51	48	3	0.04
Striped marlin	318	279	39	0.23
Shortbill spearfish	71	61	10	0.05
Swordfish	20,843	18,769	2,074	15.19
Other billfishes	13	12	1	0.01
Total	21,296	19,169	2,127	15.52
Sharks	21,290	19,109	2,127	13.32
Blue shark	15,475	9	15,466	11.28
Mako sharks	834	104	730	0.61
Thresher sharks	52	7	45	0.04
Oceanic whitetip shark	96	3	93	0.07
Silky shark	6	3	6	0.00
Other sharks	75	1	74	0.05
Total	16,538	124	16,414	12.05
Tunas	10,350	124	10,414	12.00
Albacore	1,391	853	538	1.01
Bigeye tuna	1,350	1,167	183	0.98
Yellowfin	129	118	11	0.09
Skipjack tuna	35	27	8	0.03
Other tunas	3	1	2	0.00
Total	2,908	2,166	742	2.12
Other PMUS	- ,, , ,	_,100	,	
Mahimahi	1,916	1,727	189	1.40
Moonfish	54	40	14	0.04
Wahoo	87	81	6	0.06
Oilfish	2,392	1,890	502	1.74
Pomfret	141	114	27	0.10
Total	4,590	3,852	738	3.35
Total PMUS	45,332	25,311	20,021	33.04
Total Non-PMUS	33	21	12	0.02
Total All Species	45,365	25,332	20,033	33.07

Table 16. Yearly summary report of fish catch statistics for U.S. longline vessels landing in Hawaii as derived from NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:09:58PM]

Time Period 2007 Fishing Area All Areas

Trip Types Tuna Targeted Trips

Number of vessels active	129
Number of trips	1,426
Number of sets	17,809
Number of hooks set	38.825.977

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes		*		
Blue marlin	3,239	3,212	27	0.08
Striped marlin	7,885	7,809	76	0.20
Shortbill spearfish	9,965	9,852	113	0.26
Swordfish	3,428	2,987	441	0.09
Other billfishes	504	497	7	0.01
Total	25,021	24,357	664	0.64
Sharks	20,021	_ 1,00	001	•••
Blue shark	50,034	164	49,870	1.29
Mako sharks	2,365	1,380	985	0.06
Thresher sharks	4,965	513	4,452	0.13
Oceanic whitetip shark	1,092	85	1,007	0.03
Silky shark	130	4	126	0.00
Other sharks	601	35	566	0.02
Total	59,187	2,181	57,006	1.52
Tunas	,	,	•	
Albacore	9,453	9,417	36	0.24
Bigeye tuna	158,039	153,778	4,261	4.07
Yellowfin	26,151	25,204	947	0.67
Bluefin tuna	2	2		0.00
Skipjack tuna	14,226	13,072	1,154	0.37
Other tunas	33	33		0.00
Total	207,904	201,506	6,398	5.35
Other PMUS				
Mahimahi	80,954	79,484	1,470	2.09
Moonfish	14,317	14,253	64	0.37
Wahoo	12,468	12,402	66	0.32
Oilfish	24,809	24,607	202	0.64
Pomfret	39,498	39,193	305	1.02
Total	172,046	169,939	2,107	4.43
Total PMUS	464,158	397,983	66,175	11.95
Total Non-PMUS	4,664	1,073	3,591	0.12
Total All Species	468,822	399,056	69,766	12.07

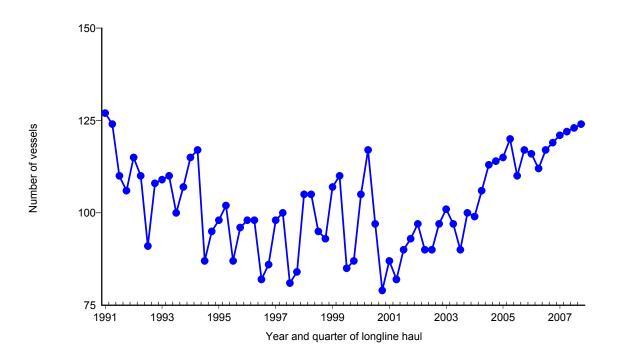


Figure 1. Number of active longline vessels based and landing in Hawaii, by quarter, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:22:51PM]

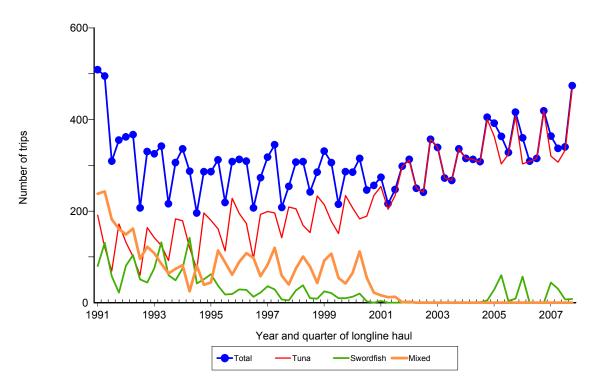


Figure 2. Number of fishing trips by longline vessels based and landing in Hawaii, by quarter and trip type, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:22:51PM]

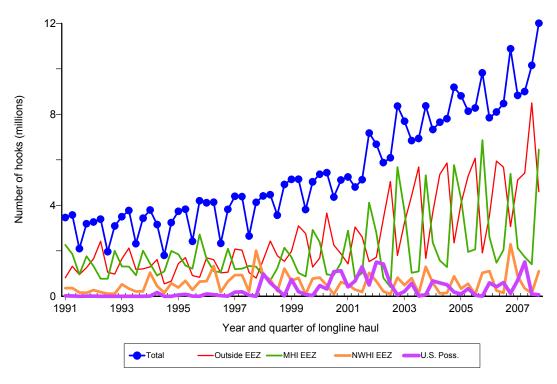


Figure 3. Number of hooks set by longline vessels based and landing in Hawaii, by quarter and fishing area, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:22:59PM]

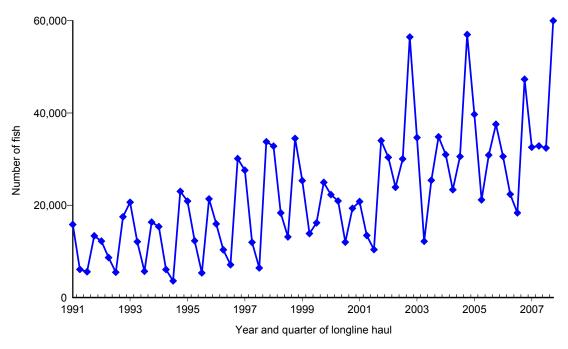


Figure 4. Quarterly catch of bigeye tuna by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:24:10PM]

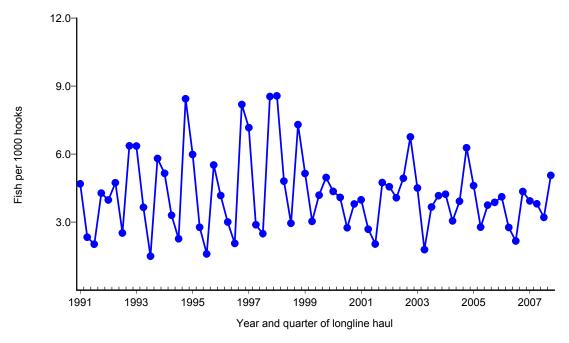


Figure 5. Quarterly CPUE of bigeye tuna (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:24:10PM]

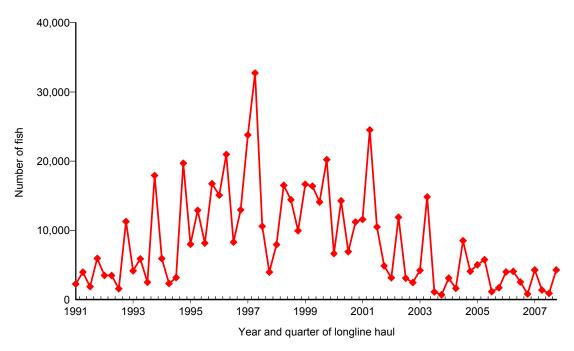


Figure 6. Quarterly catch of albacore by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:25:24PM]

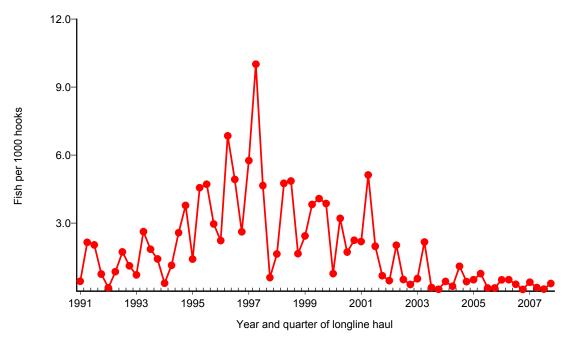


Figure 7. Quarterly CPUE of albacore (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:25:24PM]

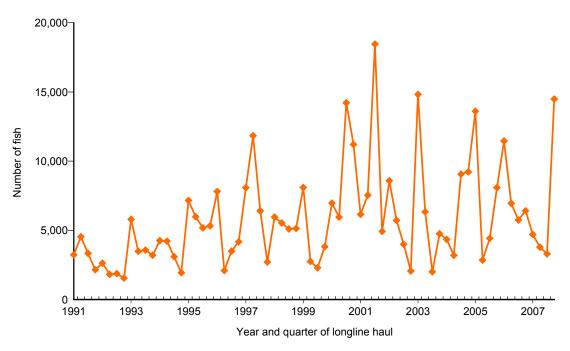


Figure 8. Quarterly catch of yellowfin tuna by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:26:38PM]

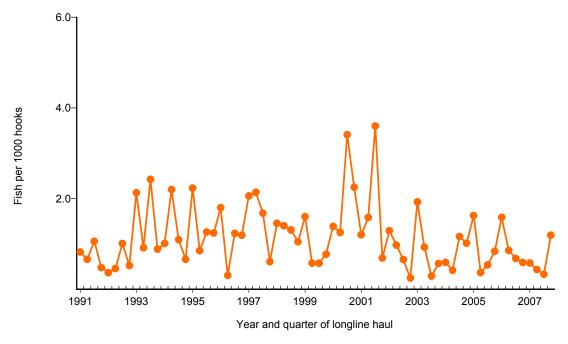


Figure 9. Quarterly CPUE of yellowfin tuna (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:26:38PM]

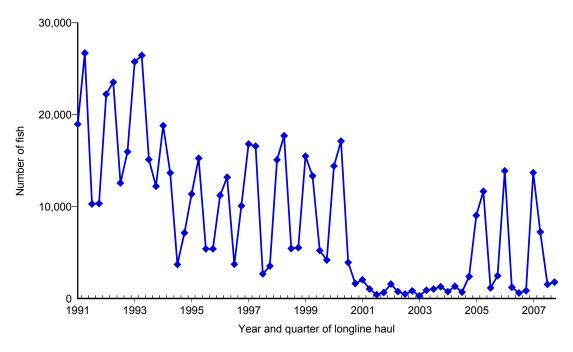


Figure 10. Quarterly catch of swordfish by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:27:51PM]

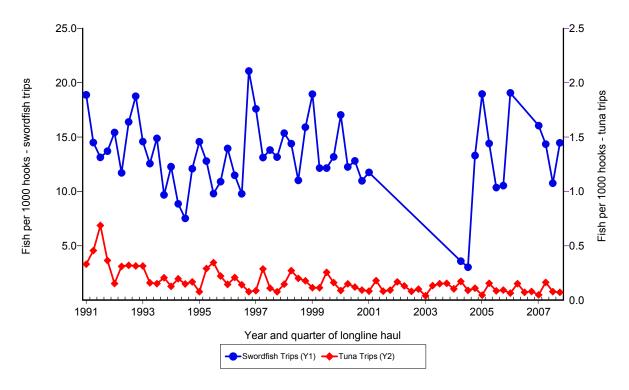


Figure 11. Quarterly CPUE of swordfish (fish per 1000 hooks) on swordfish trips and tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:27:51PM]

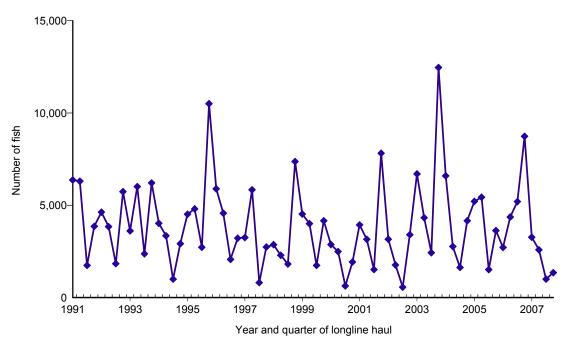


Figure 12. Quarterly catch of striped marlin by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:29:03PM]

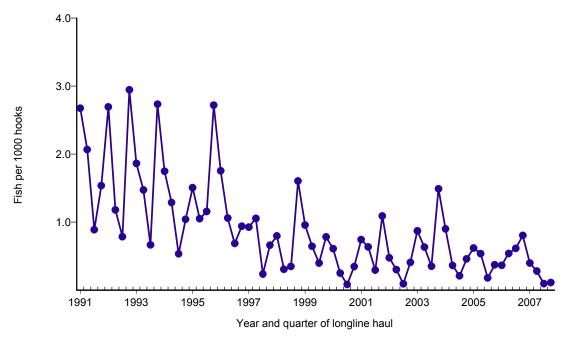


Figure 13. Quarterly CPUE of striped marlin (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:29:03PM]

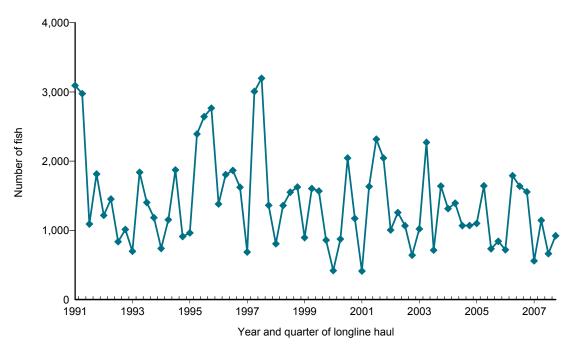


Figure 14. Quarterly catch of blue marlin by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:30:15PM]

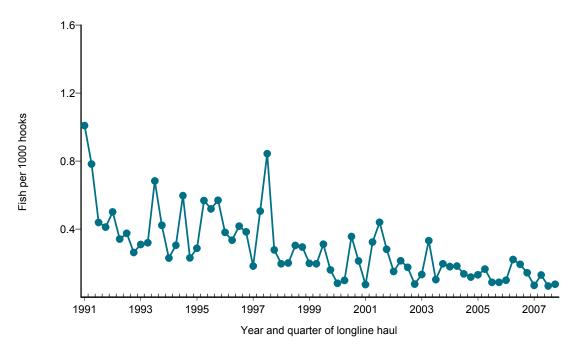


Figure 15. Quarterly CPUE of blue marlin (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:30:15PM]

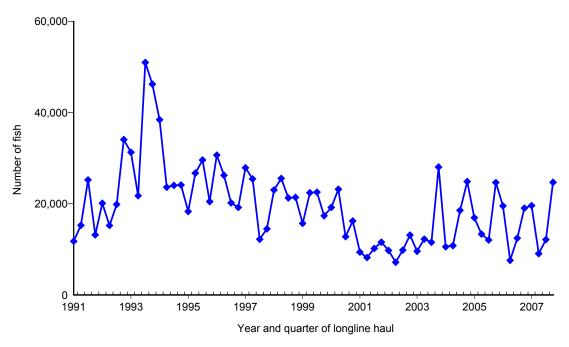


Figure 16. Quarterly catch of blue shark by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:31:25PM]

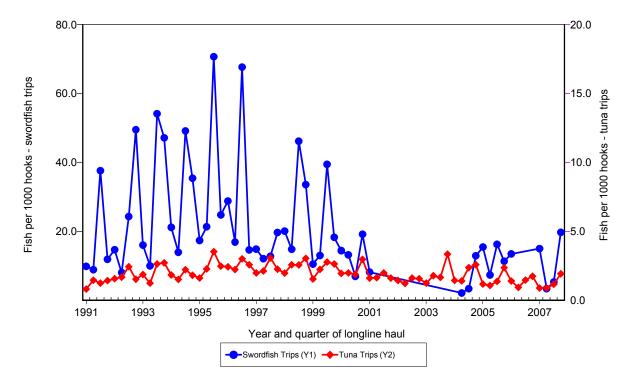


Figure 17. Quarterly CPUE of blue shark (fish per 1000 hooks) on swordfish trips and tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:31:25PM]

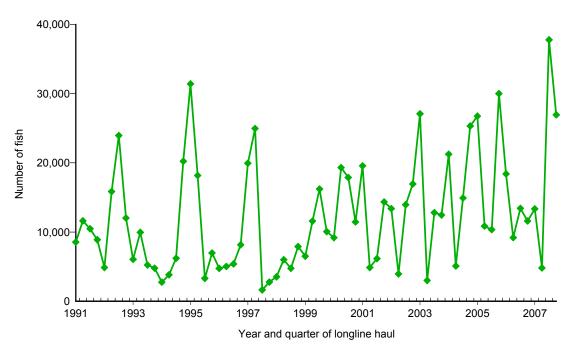


Figure 18. Quarterly catch of mahimahi by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:32:40PM]

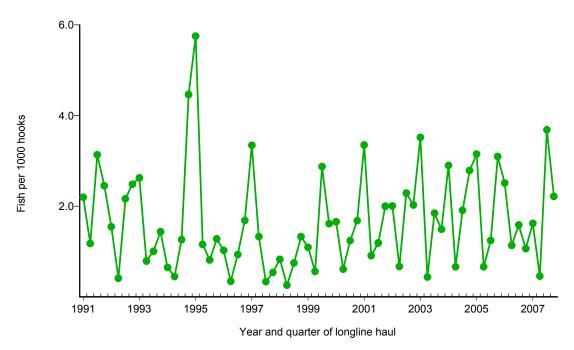


Figure 19. Quarterly CPUE of mahimahi (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:32:40PM]

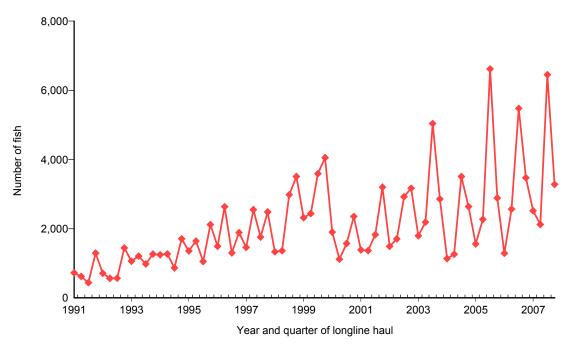


Figure 20. Quarterly catch of moonfish by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:33:53PM]

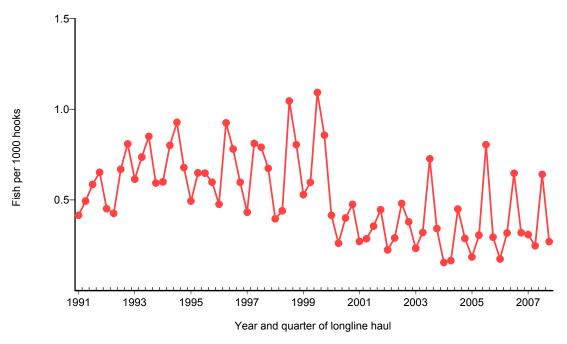


Figure 21. Quarterly CPUE of moonfish (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:33:53PM]

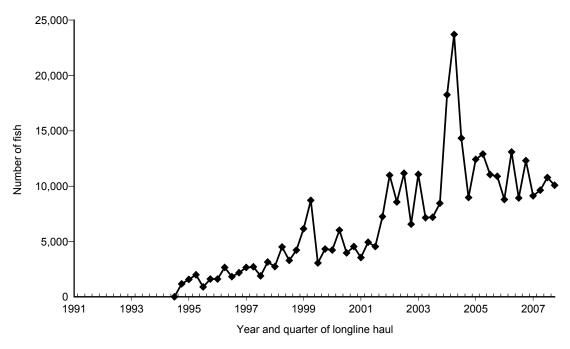


Figure 22. Quarterly catch of pomfret by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:35:07PM]

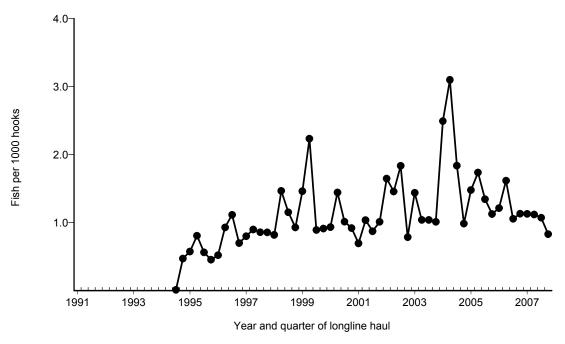


Figure 23. Quarterly CPUE of pomfret (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:35:07PM]

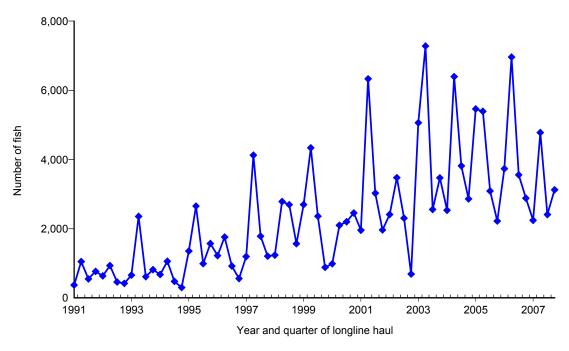


Figure 24. Quarterly catch of wahoo by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:36:21PM]

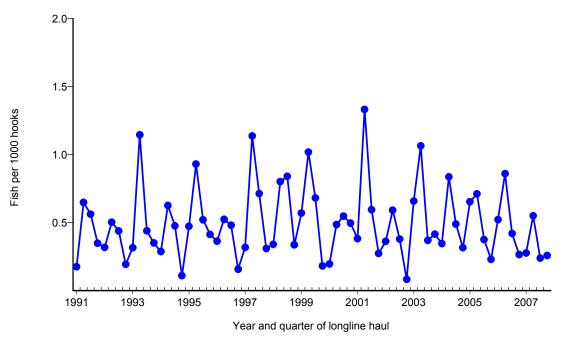


Figure 25. Quarterly CPUE of wahoo (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:36:21PM]

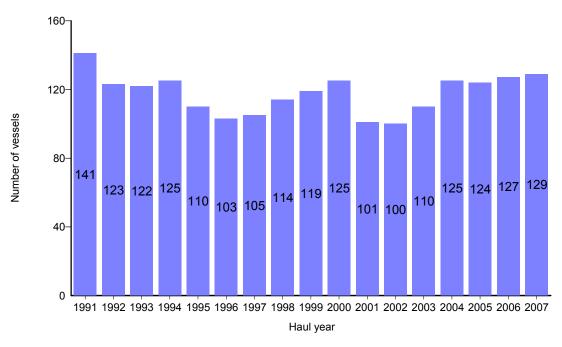


Figure A1. Number of active longline vessels based and landing in Hawaii, by year, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:37:32PM]

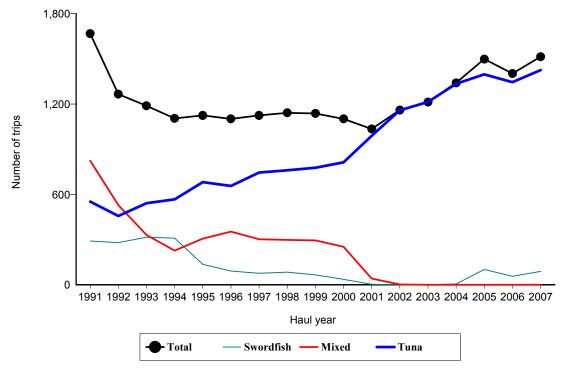


Figure A2. Number of fishing trips by longline vessels based and landing in Hawaii, by year and trip type, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:37:32PM]

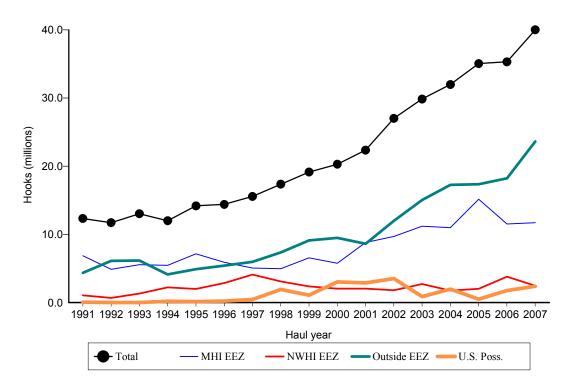


Figure A3. Number of hooks set by longline vessels based and landing in Hawaii, by year and fishing area, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:37:40PM]

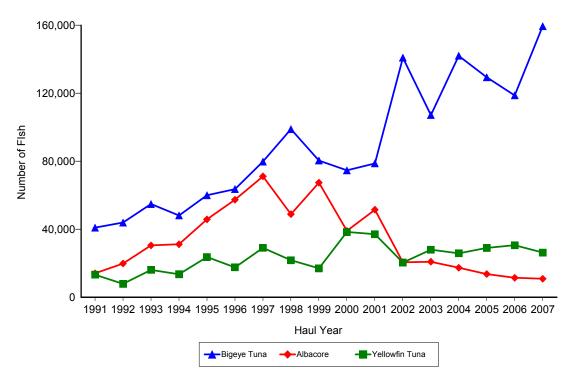


Figure A4. Annual catch of albacore, bigeye tuna, and yellowfin tuna by longline vessels based and landing in Hawaii, 1991-2007. 2/22/2008 3:38:51PM]

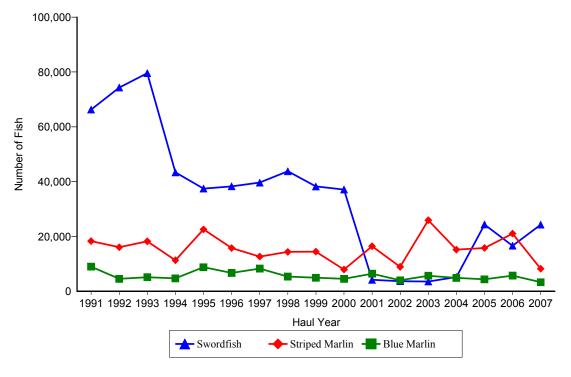


Figure A5. Annual catch of blue marlin, striped marlin, and swordfish by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:38:51PM]

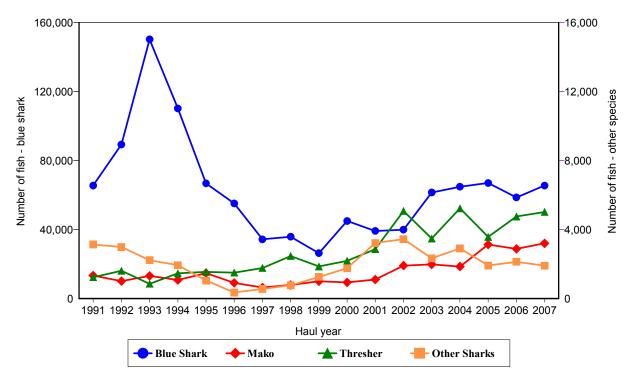


Figure A6. Annual catch of blue shark, mako shark, thresher shark, and other sharks by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:38:51PM]

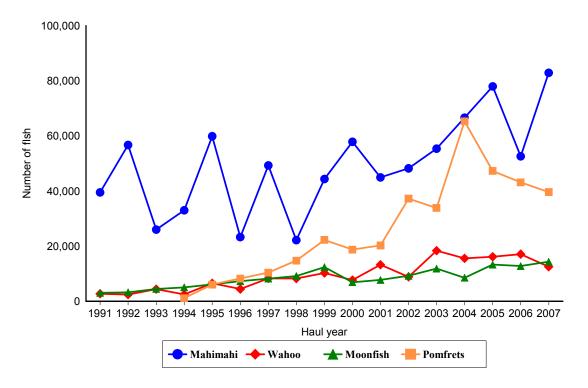


Figure A7. Annual catch of mahimahi, moonfish, pomfret, and wahoo by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 2/22/2008 3:38:51PM]