

The Hawaii-based Longline Logbook Summary Report April-June 2007¹

Pacific Islands Fisheries Science Center
Fishery Monitoring and Analysis Program

All Federal longline logbook data for fishing trips completed in the second quarter of 2007 (Q2-2007) by Hawaii-based longline vessels have been received and processed and are summarized in this report (Table 1). The report includes most data from trips that began late in the second quarter and continued into the third quarter of 2007, but data from such trips may still be forthcoming; hence, this report should be considered preliminary. Updates will be made available in the online edition of the report at <http://www.pifsc.noaa.gov/fmsd/reports.php>.

In Q2-2007, the shallow-set fishery targeting swordfish continued to operate under annual limits on allowed interactions with loggerhead and leatherback sea turtles – 17 and 16 interactions, respectively. Similarly, the deep-set 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 was 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.

During Q2-2007, a total of 124 vessels were active in the fishery, 11 more than in Q2-2006 (Fig. 1). They recorded 398 longline trips (41 more than in Q2-2006), including 363 using deep-set gear to target tuna and 35 using shallow-set gear to target swordfish (Fig. 2). The vessels deployed about 9 million hooks, 930,000 more than in Q2-2006 (Fig. 3). They fished mainly outside the U.S. Exclusive Economic Zone (EEZ) (60% of total hooks set) followed by the EEZs of the main Hawaiian Islands (MHI) (19%), the Pacific Remote Island Areas (PRIAS) (17%), and the Northwestern Hawaiian Islands (NWHI) (4%).

In Q2-2007, the Hawaii longline fleet caught a total of 32,878 bigeye tuna (Fig. 4); 57% were caught outside the U.S. EEZ, 30% in the EEZ of PRIAS, 11% in the MHI EEZ, and 2% in the NWHI EEZ. The bigeye tuna CPUE on tuna-targeted trips was 3.8 fish per 1000 hooks (Fig. 5). The albacore catch and CPUE on tuna-targeted trips were 1,376 fish and 0.16 fish per 1000 hooks, respectively (Figs. 6-7). The yellowfin tuna catch (3,785 fish) and CPUE on tuna-targeted trips (0.44 fish per 1000 hooks) were substantially lower than in Q2-2006 (Figs. 8-9), whereas the Q2-2007 swordfish catch (7,244 fish) was substantially higher (Fig. 10). The increase in swordfish catch is attributed to the longer swordfish season this year; in 2006, the season was cut short when the limit on loggerhead interactions was reached. In Q2-2007 the swordfish CPUE on shallow-set swordfish-targeted trips was 14.3 fish per 1000 hooks (Fig. 11). The Q2-2007 striped marlin catch (2,586 fish) and CPUE on tuna-targeted trips (0.28 fish per 1000 hooks) were substantially lower than in Q2-2006 (Figs. 12-13). The Q2-2007 blue marlin catch and CPUE on tuna-targeted trips were 1,145 fish and 0.13 fish per 1000 hooks, respectively (Figs. 14-15). A total of 12,813 sharks were caught in Q2-2007, of which 5% were kept. Blue shark comprised 71% of the total shark catch (9,066 fish) (Fig. 16). Blue shark CPUE on shallow-set swordfish-targeted trips was 3.4 fish per 1000 hooks (Fig. 17).

Revised graphs of annual catch and fishing effort during 1991-2006 are presented in Figs. A1-A7. Additional quarterly and annual statistics for the Hawaii longline fishery are included in the online edition of the report.

¹ PIFSC Data Report DR-07-006
Issued 24 August 2007

Table 1. Quarterly 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, 8/17/2007 9:55:47AM]

Report Coverage

Time Period 2nd Quarter 2007
 Fishing Area All Areas
 Trip Types All Trip Types

Number of vessels active	124
Number of trips	398
Number of sets	4,428
Number of hooks set	9,000,724

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	1,145	1,134	11	0.13
Striped marlin	2,586	2,563	23	0.29
Shortbill spearfish	1,794	1,778	16	0.20
Swordfish	7,244	6,368	876	0.80
Other billfishes	68	68		0.01
Total	12,837	11,911	926	1.43
Sharks				
Blue shark	9,066	49	9,017	1.01
Mako sharks	677	343	334	0.08
Thresher sharks	2,180	161	2,019	0.24
Oceanic whitetip shark	562	17	545	0.06
Silky shark	88	4	84	0.01
Other sharks	240	8	232	0.03
Total	12,813	582	12,231	1.42
Tunas				
Albacore	1,376	1,370	6	0.15
Bigeye tuna	32,878	31,974	904	3.65
Yellowfin	3,785	3,691	94	0.42
Bluefin tuna	2	2		0.00
Skipjack tuna	1,925	1,794	131	0.21
Other tunas	2	2		0.00
Total	39,968	38,833	1,135	4.44
Other PMUS				
Mahimahi	4,816	4,744	72	0.54
Moonfish	2,124	2,116	8	0.24
Wahoo	4,778	4,757	21	0.53
Oilfish	6,173	6,010	163	0.69
Pomfret	9,630	9,586	44	1.07
Total	27,521	27,213	308	3.06
Total PMUS	93,139	78,539	14,600	10.35
Total Non-PMUS	1,827	517	1,310	0.20
Total All Species	94,966	79,056	15,910	10.55

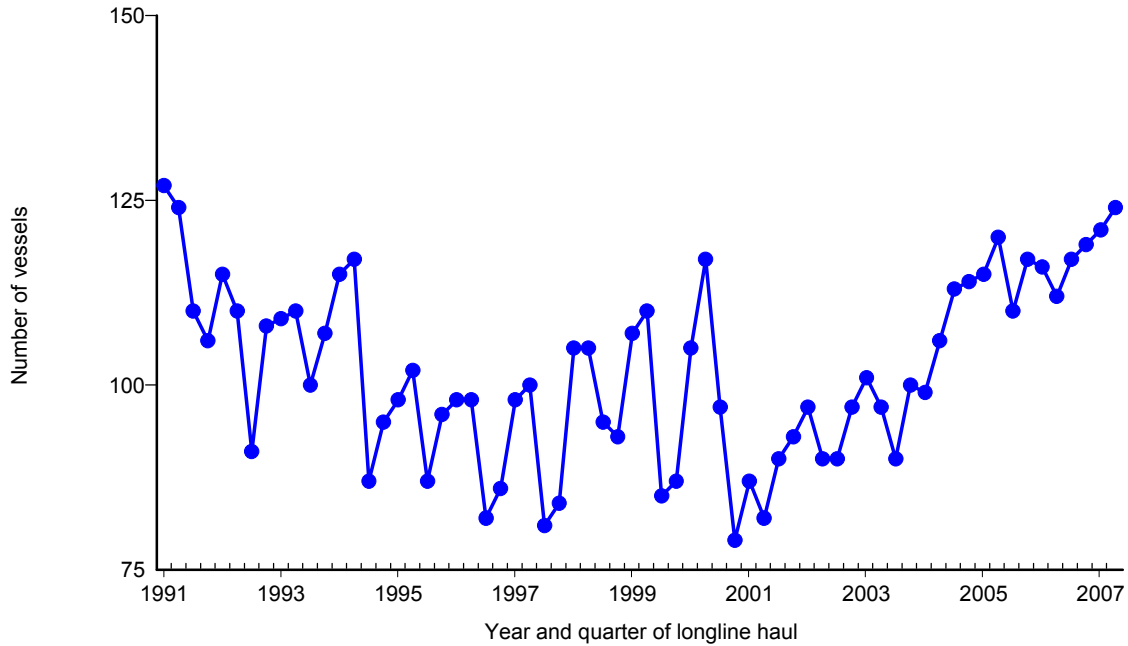


Figure 1. Number of active longline vessels based and landing in Hawaii, by quarter, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 9:59:41AM]

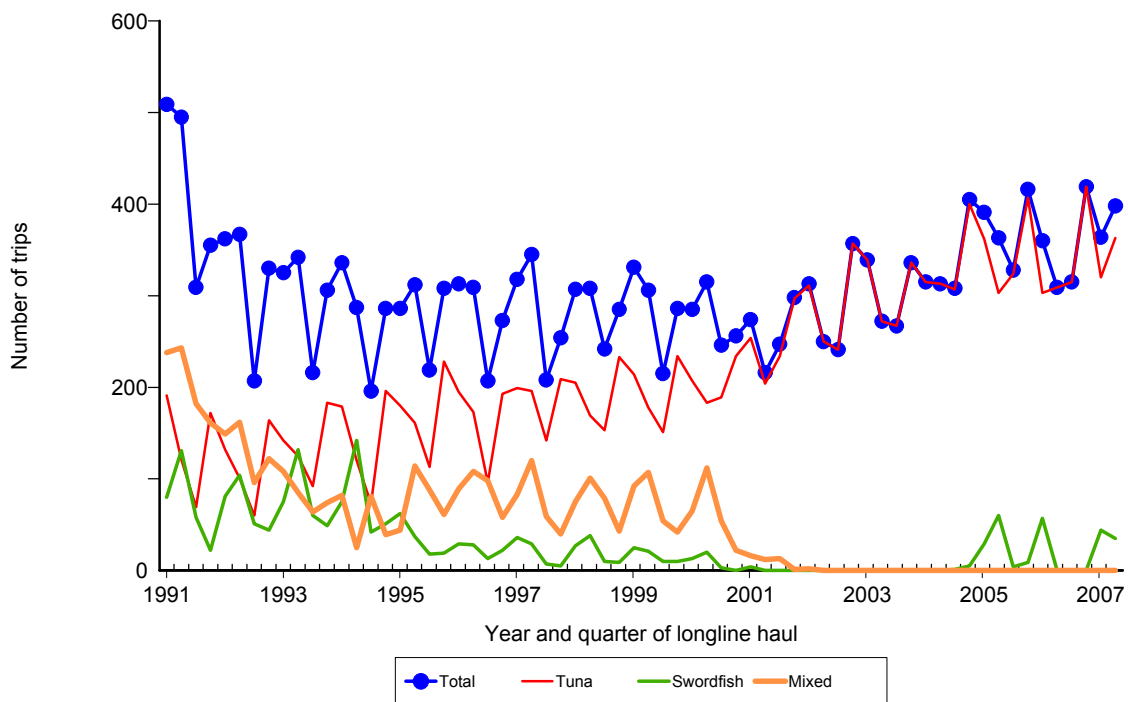


Figure 2. Number of fishing trips by longline vessels based and landing in Hawaii, by quarter and trip type, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 9:59:41AM]

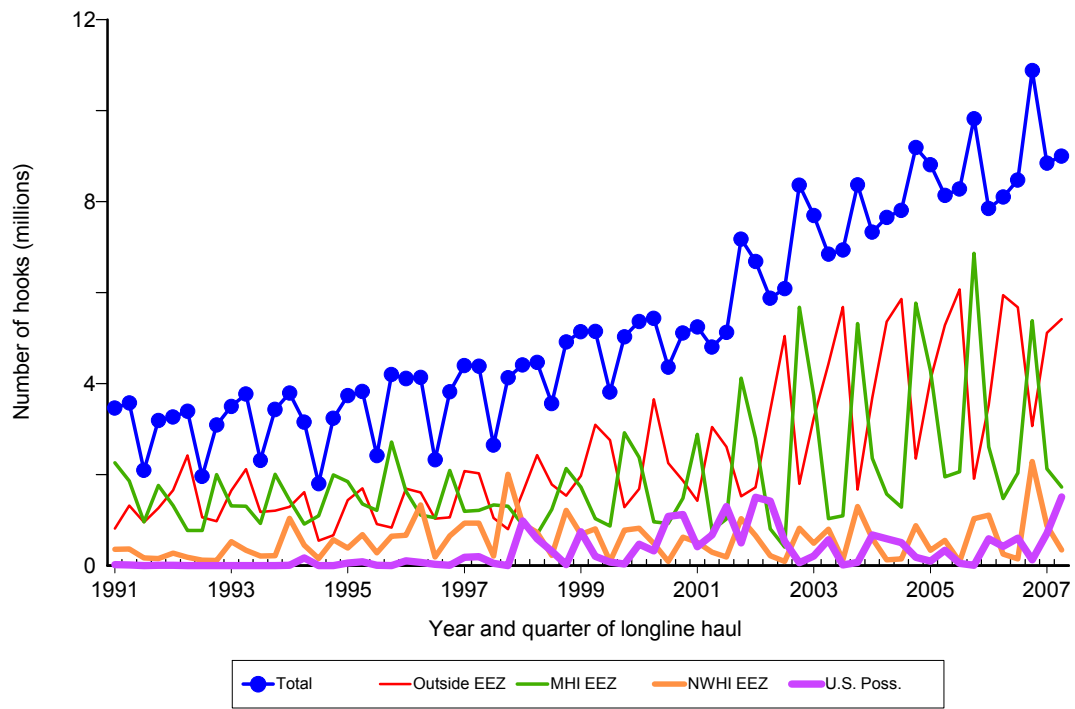


Figure 3. Number of hooks set by longline vessels based and landing in Hawaii, by quarter and fishing area, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 9:59:44AM]

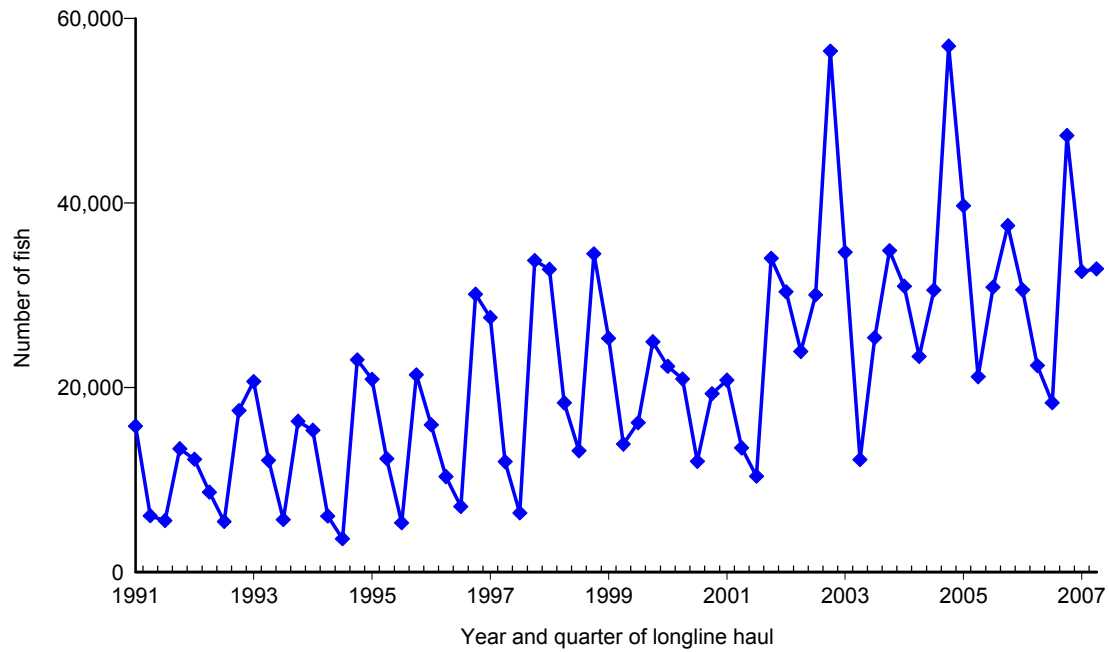


Figure 4. Quarterly catch of bigeye tuna by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:00:46AM]

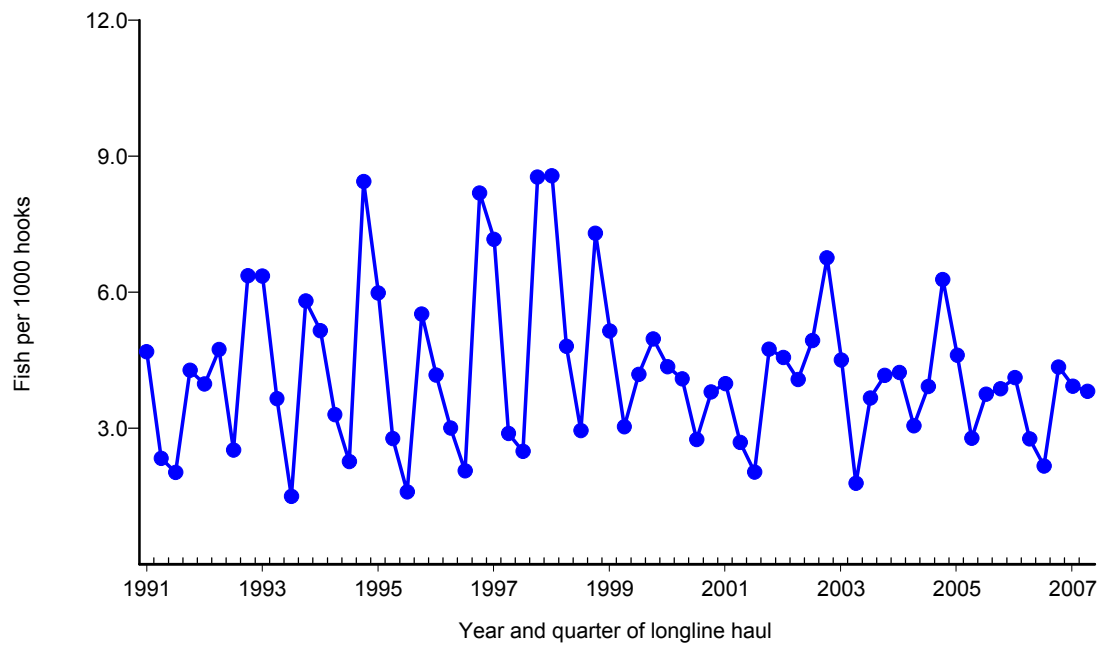


Figure 5. Quarterly CPUE of bigeye tuna (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:00:46AM]

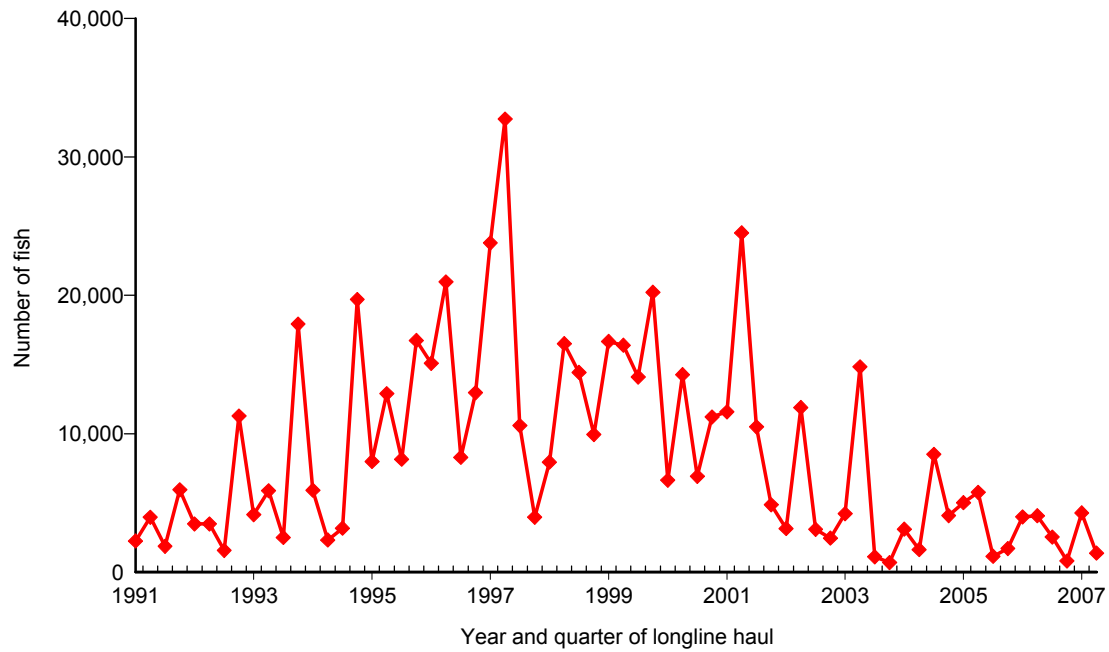


Figure 6. Quarterly catch of albacore by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:03:46AM]

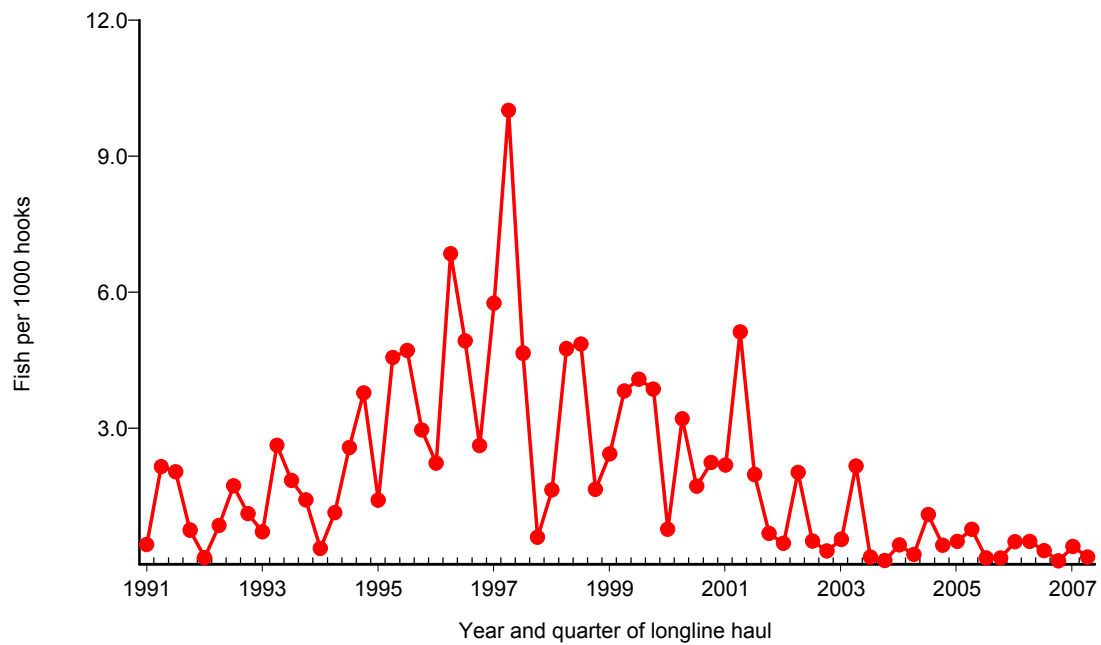


Figure 7. Quarterly CPUE of albacore (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:03:46AM]

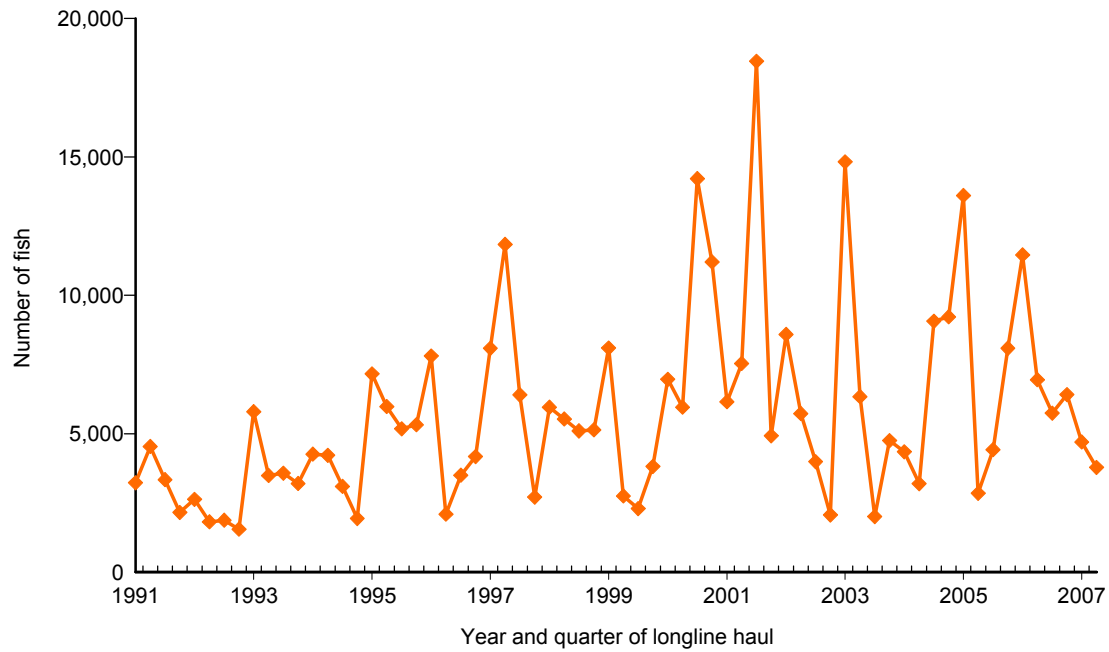


Figure 8. Quarterly catch of yellowfin tuna by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:04:22AM]

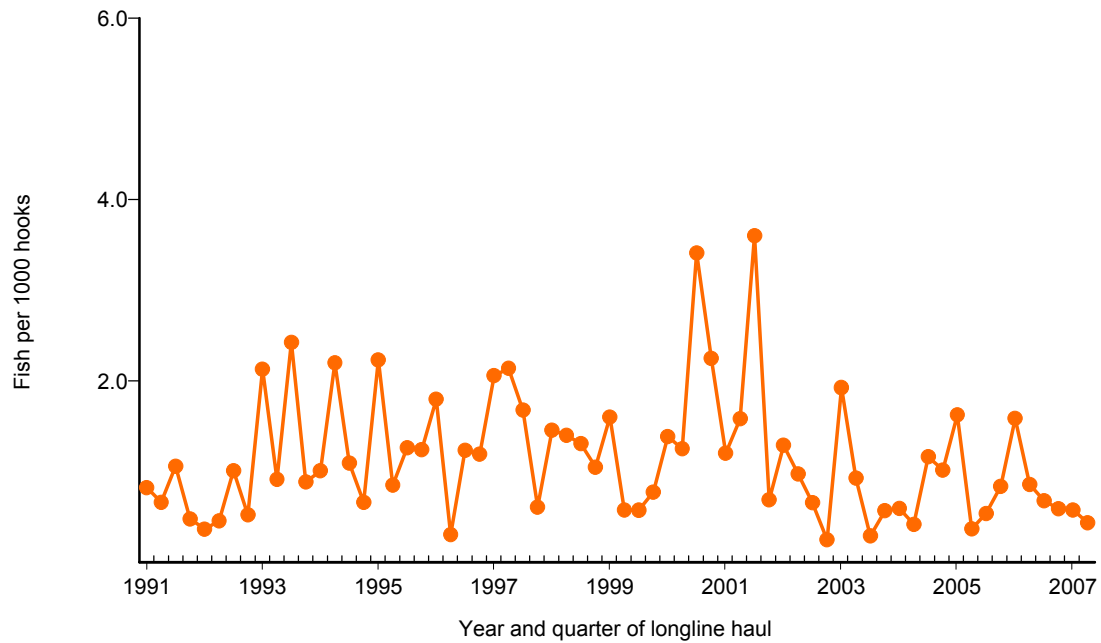


Figure 9. Quarterly CPUE of yellowfin tuna (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:04:22AM]

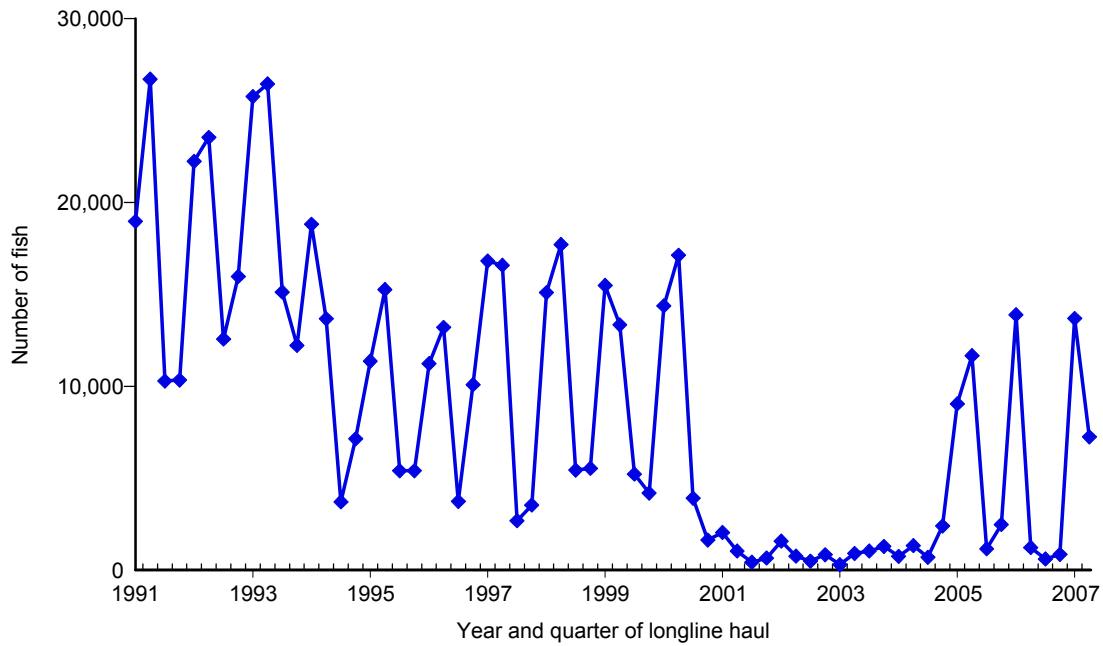


Figure 10. Quarterly catch of swordfish by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:04:57AM]

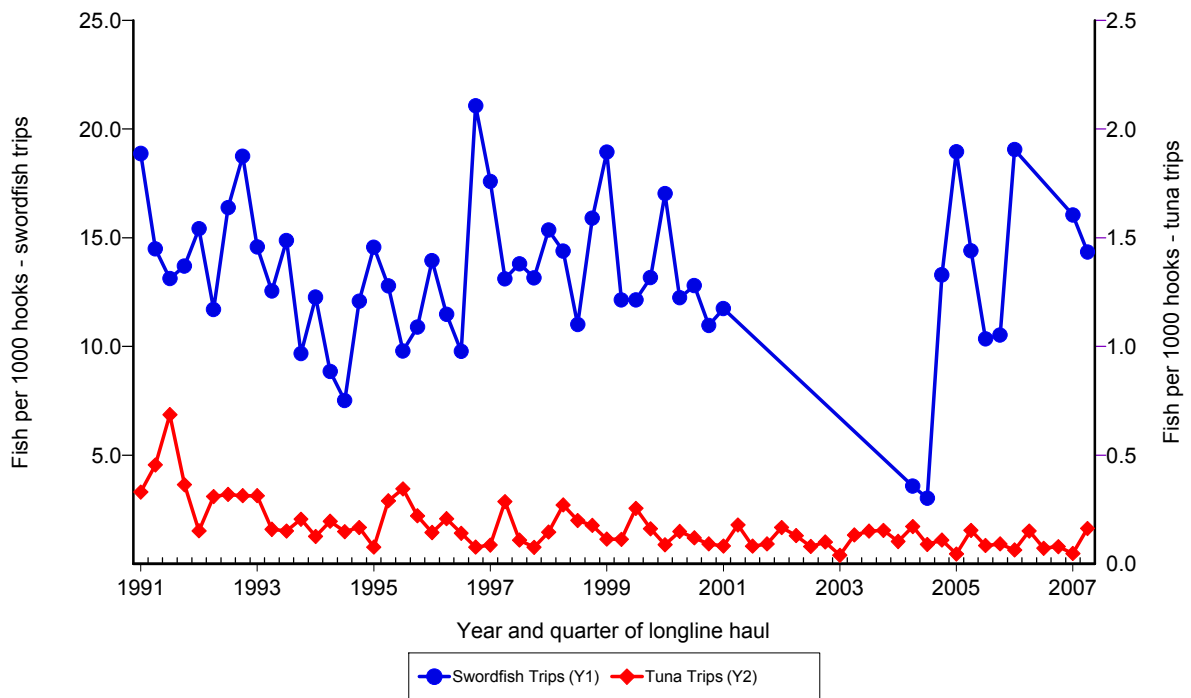


Figure 11. Quarterly CPUE of swordfish (fish per 1000 hooks) on swordfish trips and tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:04:57AM]

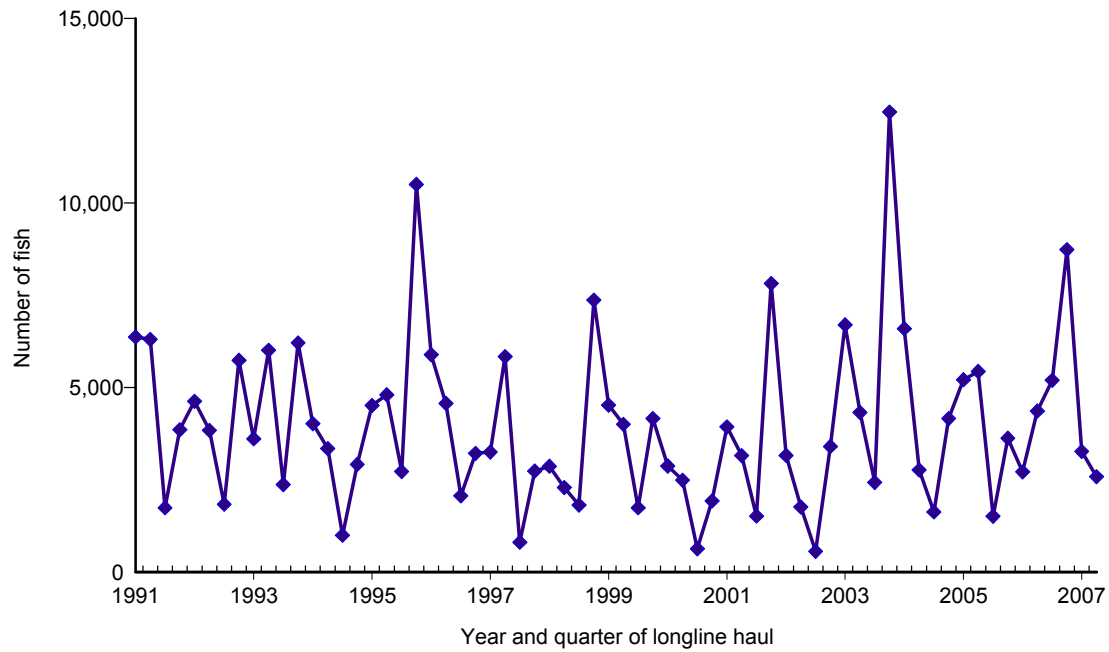


Figure 12. Quarterly catch of striped marlin by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:05:32AM]

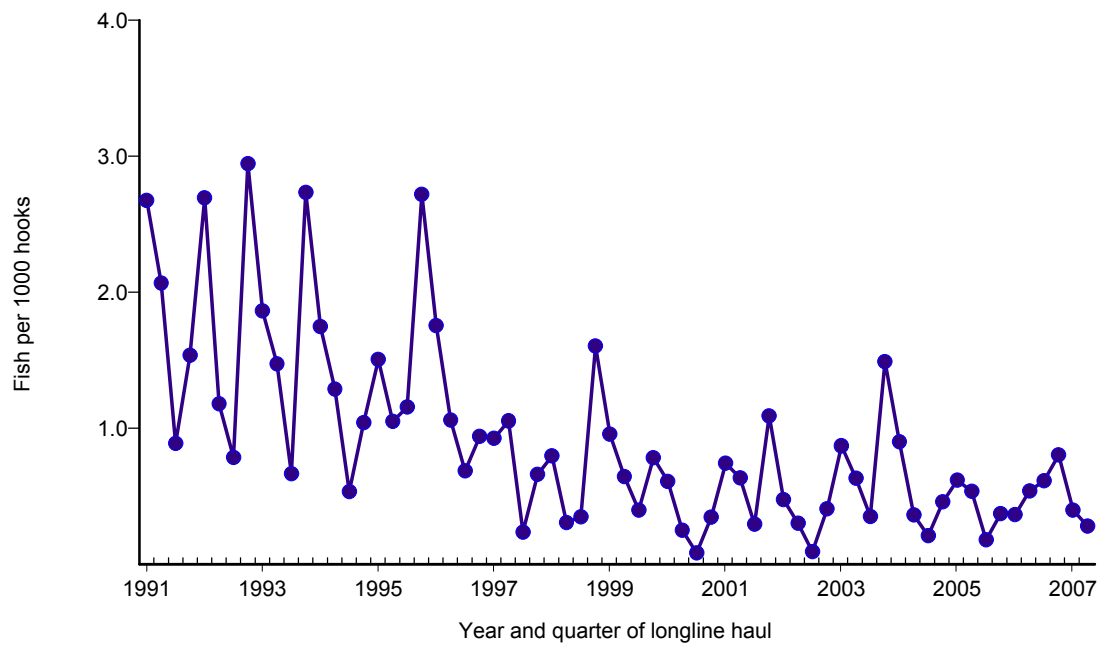


Figure 13. Quarterly CPUE of striped marlin (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:05:32AM]

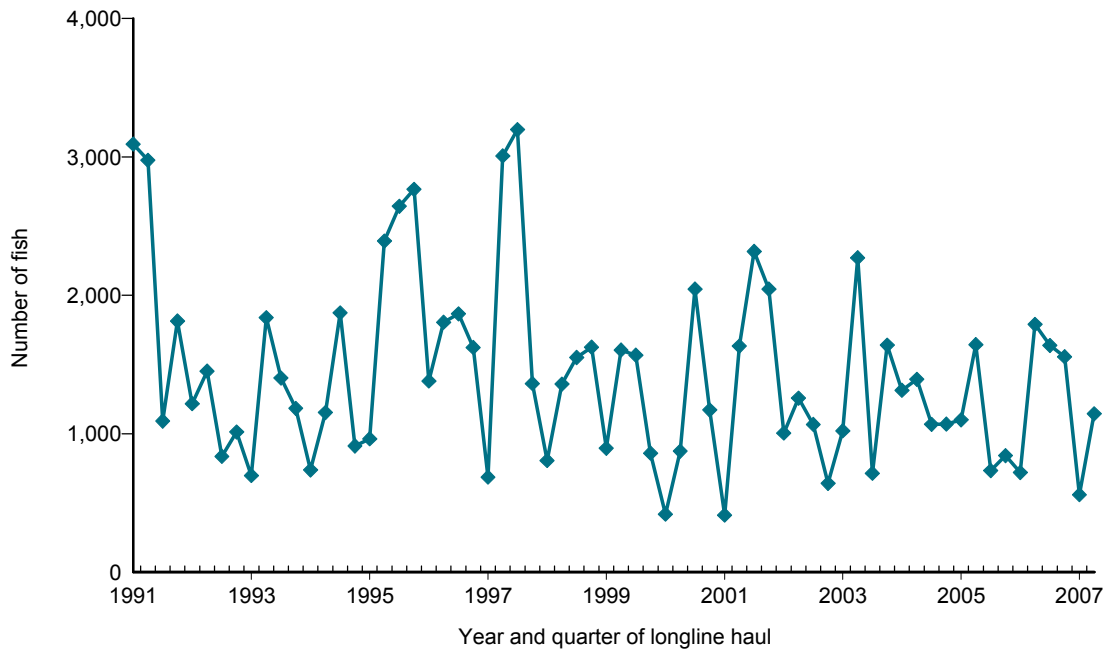


Figure 14. Quarterly catch of blue marlin by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:06:06AM]

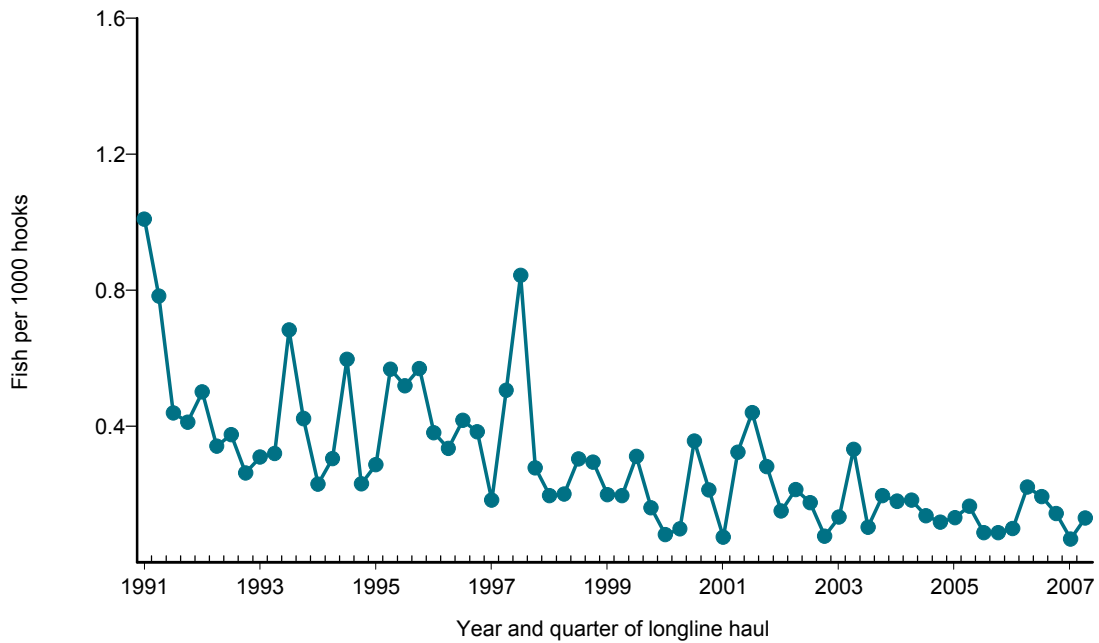


Figure 15. Quarterly CPUE of blue marlin (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:06:06AM]

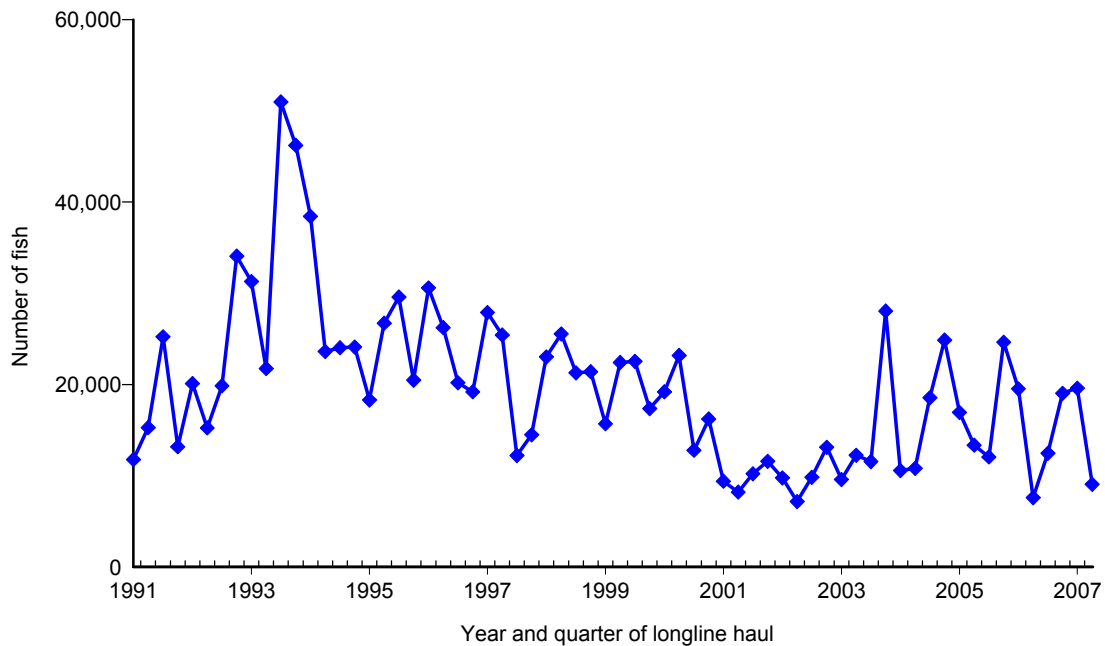


Figure 16. Quarterly catch of blue shark by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:06:40AM]

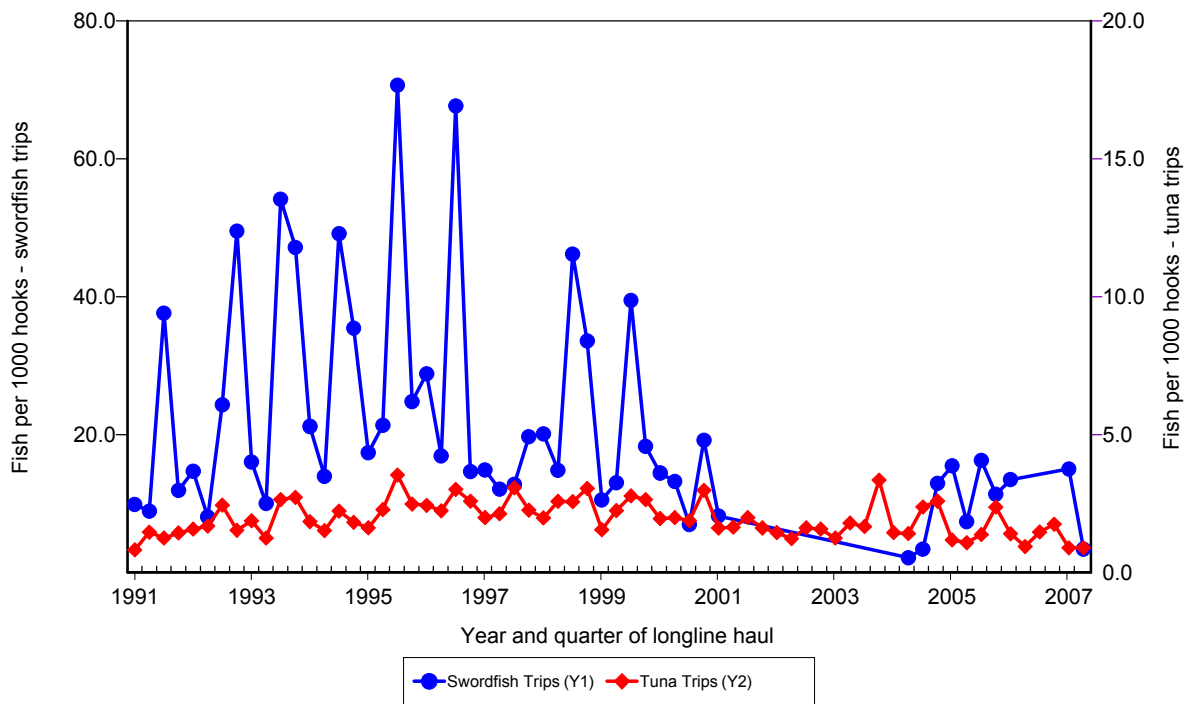


Figure 17. Quarterly CPUE of blue shark (fish per 1000 hooks) on swordfish trips and tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:06:40AM]

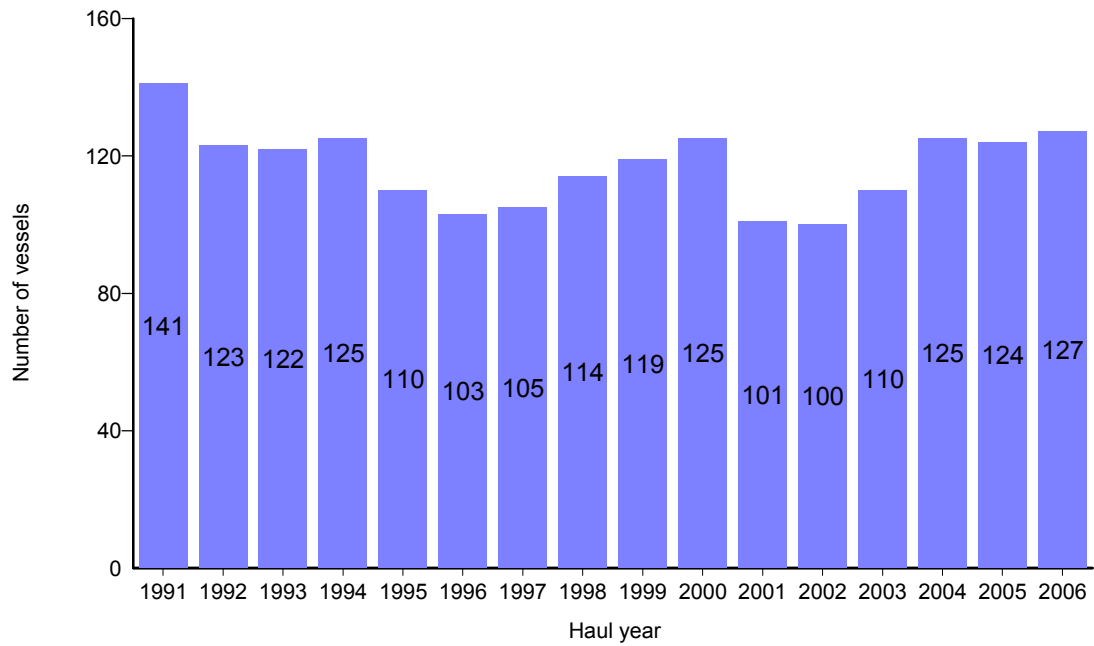


Figure A1. Number of active longline vessels based and landing in Hawaii, by year, 1991-2006. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:09:37AM]

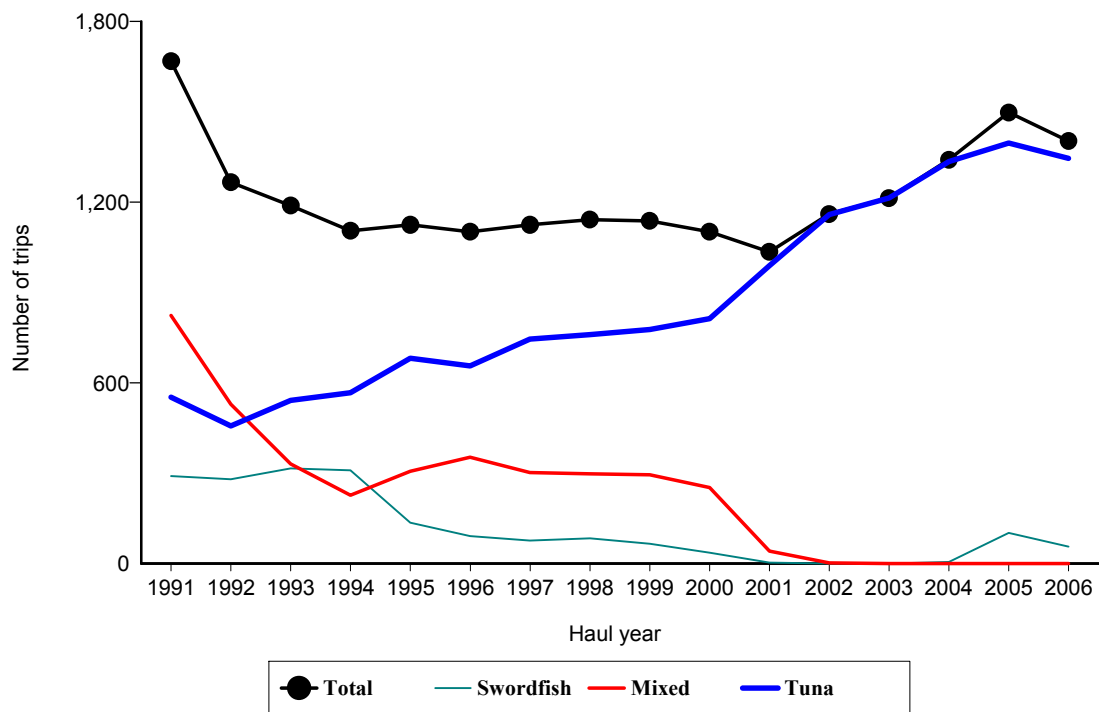


Figure A2. Number of fishing trips by longline vessels based and landing in Hawaii, by year and trip type, 1991-2006. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:09:37AM]

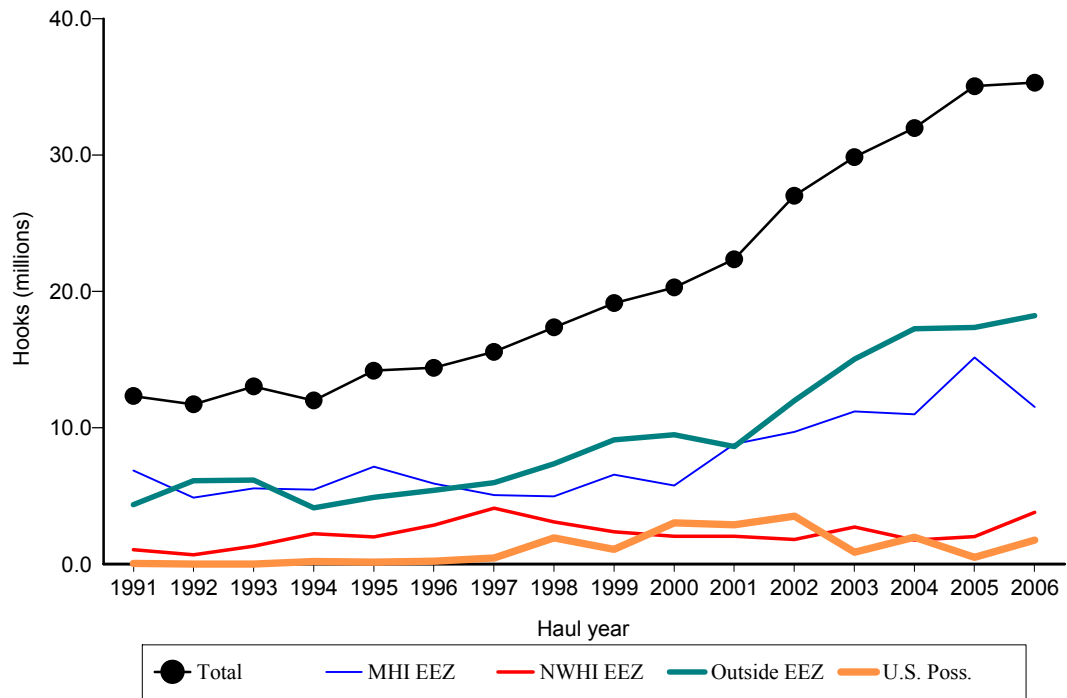


Figure A3. Number of hooks set by longline vessels based and landing in Hawaii, by year and fishing area, 1991-2006. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:09:40AM]

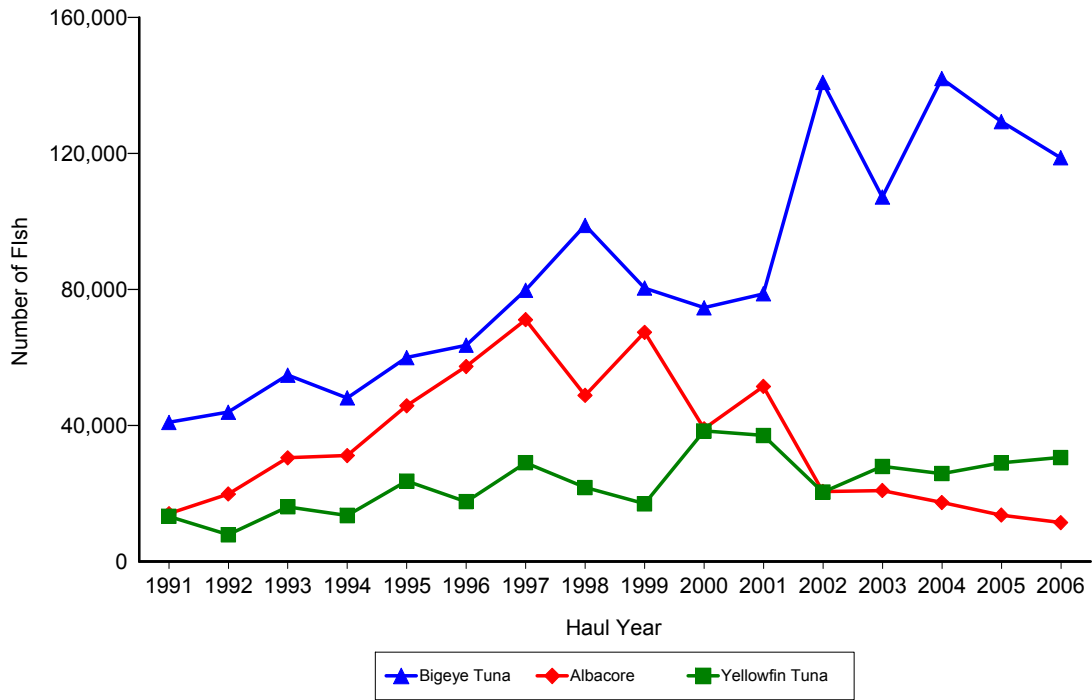


Figure A4. Annual catch of albacore, bigeye tuna, and yellowfin tuna by longline vessels based and landing in Hawaii, 1991-2006. [8/17/2007 10:10:11AM]

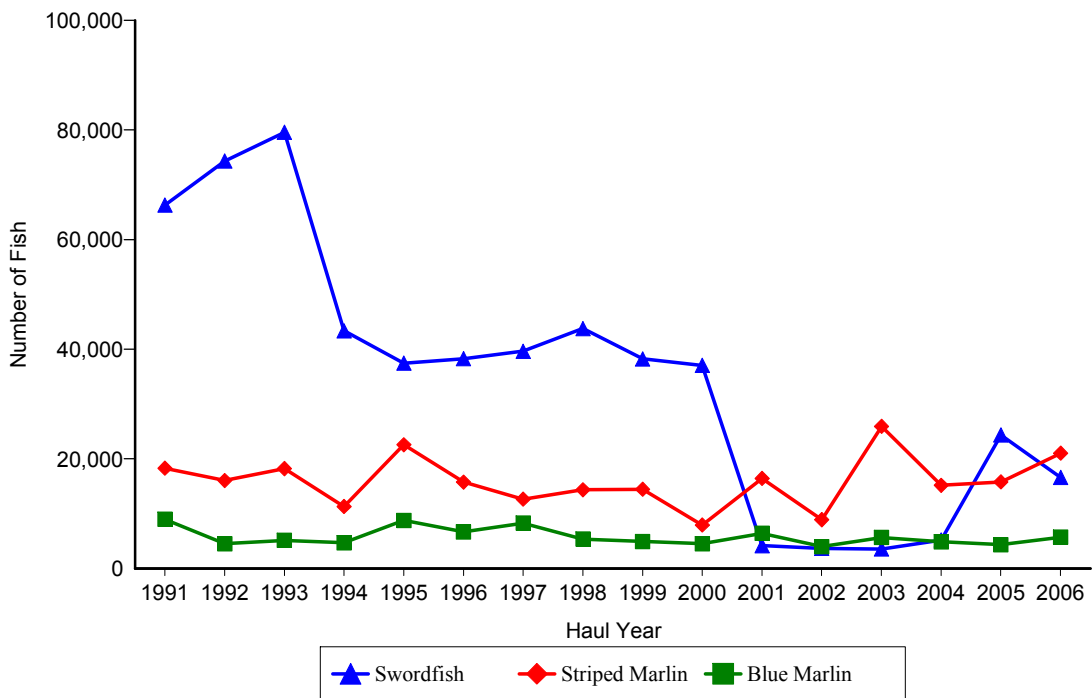


Figure A5. Annual catch of blue marlin, striped marlin, and swordfish by longline vessels based and landing in Hawaii, 1991-2006. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:10:11AM]

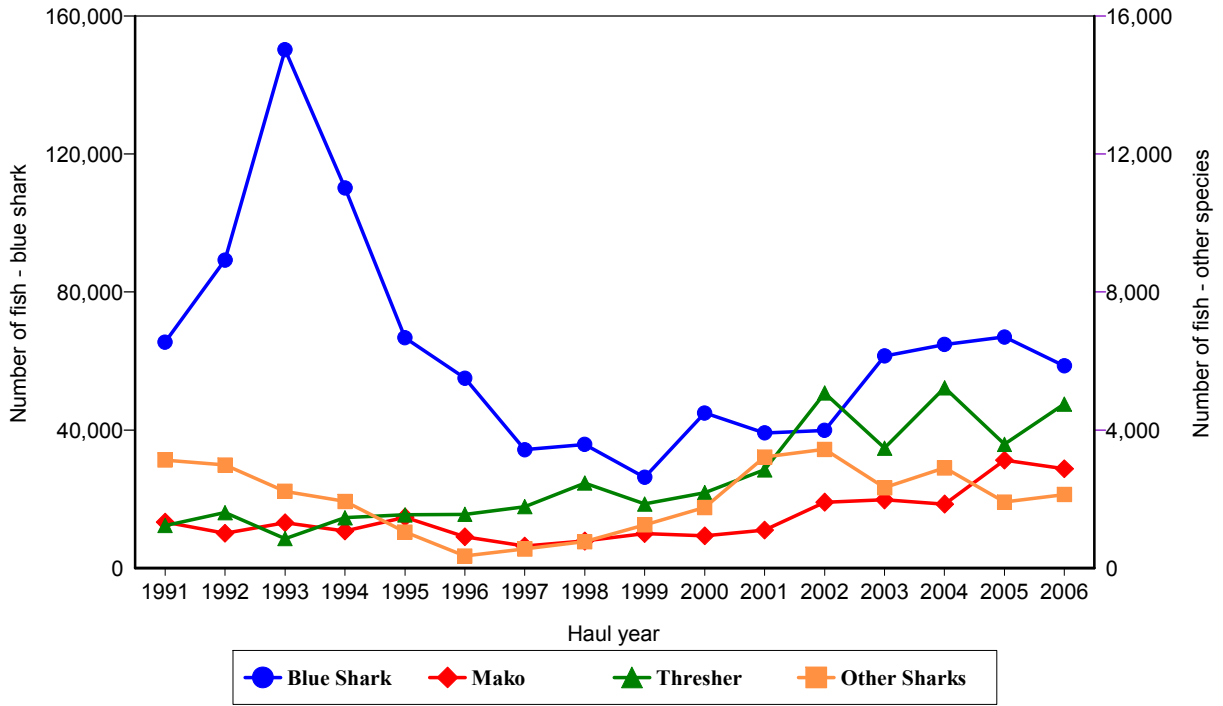


Figure A6. Annual catch of blue shark, mako shark, thresher shark, and other sharks by longline vessels based and landing in Hawaii, 1991-2006. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:10:11AM]

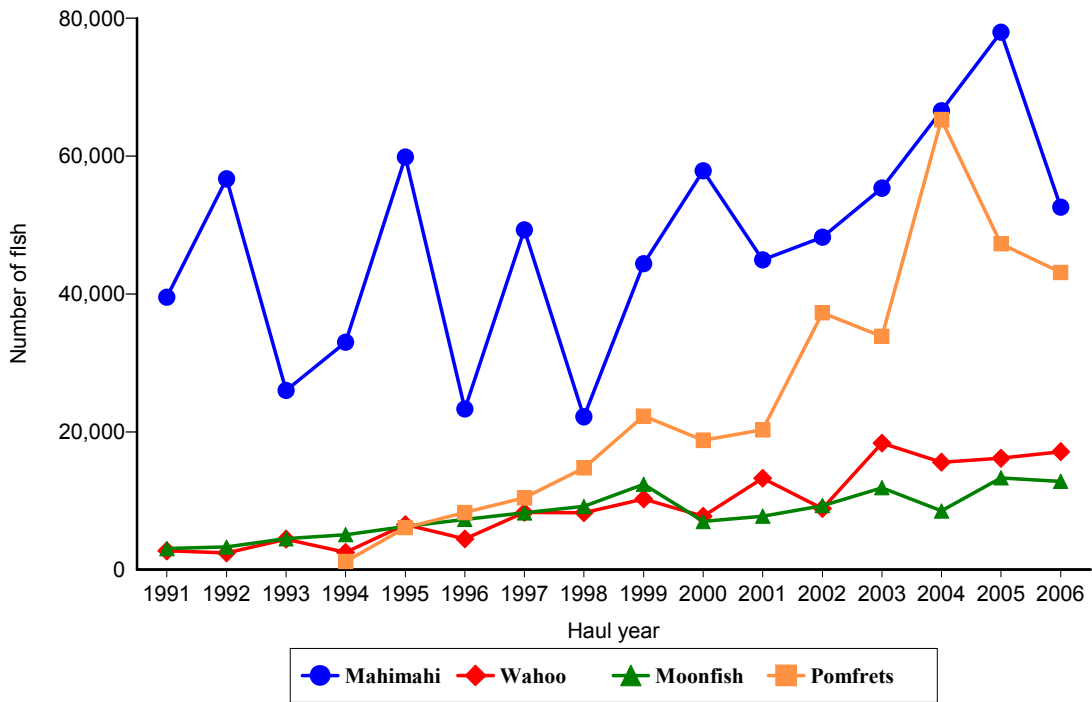


Figure A7. Annual catch of mahimahi, moonfish, pomfret, and wahoo by longline vessels based and landing in Hawaii, 1991-2006. [PIFSC IMS, Longline Logbook Data, 8/17/2007 10:10:11AM]