# The Hawaii - California Pelagic Longline Vessels Semi-annual Report 1 July-31 December 2022<sup>1</sup>

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The Hawaii - California pelagic longline logbook report for the second half of 2022 (1 July–31 December; PIFSC 2023) contains summary data of fishing effort and catch statistics as reported from electronic or paper longline log sheets submitted by Hawaii and California-based pelagic longline fishers. Catch and effort statistics are based on date of longline haul. Vessel and trips statistics can cross over two summary periods (i.e., years, semi-annual or quarters) and are counted in both summary periods. For example, a trip total is for "partial and complete" trips within a time period and these statistics are not additive since partial trips are counted in the present time period when the trip began and again in the following period when the trip ended (i.e., sum of four quarters or two semi-annual reports is not the total for the year).

Catch and effort summaries in this report were based on RFMO standards and business rules. Longline catch and effort statistics in this report consists of U.S. longline fisheries in the North Pacific Ocean, attributions from CNMI, Guam and American Samoa in the North Pacific Ocean. Longline vessels operating from California were also included in this report to satisfy RFMO data reporting and NOAA confidentiality standards.

Tables 1-5 show fishery statistics for the stated time period, area, and shallow sets (<15 hooks between floats) or deep sets ( $\ge15$  hooks between floats). The longline effort includes number of vessels, trips, sets, and hooks set. Fish species were organized into pelagic management unit species (PMUS) groups of billfish, shark, tuna and other PMUS. Each table includes the number of fish caught, kept and released. The catch per unit effort (CPUE) is measured as the number of fish caught per 1000 hooks.

#### References:

Pacific Islands Fisheries Science Center, 2023: Hawaii Longline Logbook, https://www.fisheries.noaa.gov/inport/item/2721

Southwest Fisheries Science Center, 2023: California Pelagic Longline Fishery, https://www.fisheries.noaa.gov/inport/item/12906

<sup>&</sup>lt;sup>1</sup>Data reported by fishers in electronic and paper logs were queried for the second half of 2022 (1 July–31 December) from the Pacific Islands Fishery Science Center Information Management System oracle database from table LLDS\_REPORT\_STATS\_RFMO\_HC.

Table 1. Hawaii and California-based pelagic longline vessels semi-annual statistics for all fishing areas and all fishing categories (set types), including effort (number of vessels, trips, sets, and hooks set). For each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, the table includes the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 July-31 December 2022

Set Types All sets Fishing Area All Areas Number of vessels active 144
Number of trips (partial or completed) 818
Number of sets 10,853
Number of hooks set 32,027,665

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	3,826	3,809	17	0.12
Striped marlin	6,535	6,433	102	0.20
Shortbill spearfish	5,504	5,411	93	0.17
Swordfish	3,758	3,630	128	0.12
Other billfishes	262	256	6	0.01
Total	19,885	19,539	346	0.62
Shark PMUS				
Blue shark	45,707	0	45,707	1.43
Mako sharks	974	6	968	0.03
Thresher sharks	2,129	6	2,123	0.07
Oceanic whitetip shark	217	0	217	0.01
Silky shark	116	0	116	0.00
Total	49,143	12	49,131	1.53
Tuna PMUS				
Albacore	3,752	3,720	32	0.12
Bigeye tuna	83,355	82,282	1,073	2.60
Yellowfin tuna	43,065	42,407	658	1.34
Bluefin tuna	8	7	1	0.00
Skipjack tuna	4,001	3,956	45	0.12
Other tunas	0	0	0	0.00
Total	134,181	132,372	1,809	4.19
Other PMUS				
Mahimahi	29,217	28,736	481	0.91
Moonfish	2,433	2,429	4	0.08
Wahoo	8,004	7,945	59	0.25
Oilfish	4,403	3,575	828	0.14
Pomfret	16,661	16,484	177	0.52
Total	60,718	59,169	1,549	1.90
Total PMUS	263,927	211,092	52,835	8.24
Non-PMUS Sharks	95	1	94	0.00
Total Non-PMUS	3,853	20	3,833	0.12
Total All Species	267,780	211,112	56,668	8.36

Table 2. Hawaii and California-based pelagic longline vessels semi-annual statistics for fishing within the U.S. EEZ (main Hawaiian Islands, Northwestern Hawaiian Islands, or the Pacific Remote Islands, and with all fishing categories (set types), including effort (number of vessels, trips, sets, and hooks set). For each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, the table includes the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 July-31 December 2022

Set Types All sets

Fishing Area Inside U.S. EEZ

Number of vessels active	124
Number of trips (partial or completed)	405
Number of sets	2,602
Number of hooks set	7,718,568

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	777	776	1	0.10
Striped marlin	1,482	1,466	16	0.19
Shortbill spearfish	1,280	1,268	12	0.17
Swordfish	253	236	17	0.03
Other billfishes	48	48	0	0.01
Total	3,840	3,794	46	0.50
Shark PMUS				
Blue shark	9,975	0	9,975	1.29
Mako sharks	131	0	131	0.02
Thresher sharks	282	2	280	0.04
Oceanic whitetip shark	52	0	52	0.01
Silky shark	43	0	43	0.01
Total	10,483	2	10,481	1.36
Tuna PMUS				
Albacore	510	502	8	0.07
Bigeye tuna	13,642	13,552	90	1.77
Yellowfin tuna	11,534	11,374	160	1.49
Bluefin tuna	4	4	0	0.00
Skipjack tuna	1,034	1,019	15	0.13
Other tunas	0	0	0	0.00
Total	26,724	26,451	273	3.46
Other PMUS				
Mahimahi	4,660	4,566	94	0.60
Moonfish	194	194	0	0.03
Wahoo	1,778	1,770	8	0.23
Oilfish	1,074	901	173	0.14
Pomfret	3,436	3,383	53	0.45
Total	11,142	10,814	328	1.44
Total PMUS	52,189	41,061	11,128	6.76
Non-PMUS Sharks	18	0	18	0.00
Total Non-PMUS	1,298	10	1,288	0.17
Total All Species	53,487	41,071	12,416	6.93

Table 3. Hawaii and California-based pelagic longline vessels semi-annual statistics for fishing outside the U.S. EEZ and with all fishing categories (set types), including effort (number of vessels, trips, sets, and hooks set). For each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, the table includes the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 July-31 December 2022

Set Types All sets

Fishing Area Outside U.S. EEZ

Number of vessels active 143
Number of trips (partial or completed) 723
Number of sets 8,251
Number of hooks set 24,309,097

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	3,049	3,033	16	0.13
Striped marlin	5,053	4,967	86	0.21
Shortbill spearfish	4,224	4,143	81	0.17
Swordfish	3,505	3,394	111	0.14
Other billfishes	214	208	6	0.01
Total	16,045	15,745	300	0.66
Shark PMUS				
Blue shark	35,732	0	35,732	1.47
Mako sharks	843	6	837	0.03
Thresher sharks	1,847	4	1,843	0.08
Oceanic whitetip shark	165	0	165	0.01
Silky shark	73	0	73	0.00
Total	38,660	10	38,650	1.59
Tuna PMUS				
Albacore	3,242	3,218	24	0.13
Bigeye tuna	69,713	68,730	983	2.87
Yellowfin tuna	31,531	31,033	498	1.30
Bluefin tuna	4	3	1	0.00
Skipjack tuna	2,967	2,937	30	0.12
Other tunas	0	0	0	0.00
Total	107,457	105,921	1,536	4.42
Other PMUS				
Mahimahi	24,557	24,170	387	1.01
Moonfish	2,239	2,235	4	0.09
Wahoo	6,226	6,175	51	0.26
Oilfish	3,329	2,674	655	0.14
Pomfret	13,225	13,101	124	0.54
Total	49,576	48,355	1,221	2.04
Total PMUS	211,738	170,031	41,707	8.71
Non-PMUS Sharks	77	1	76	0.00
Total Non-PMUS	2,555	10	2,545	0.11
Total All Species	214,293	170,041	44,252	8.82

Table 4. Hawaii and California-based pelagic longline vessels semi-annual statistics for all fishing areas and with shallow set type, including effort (number of vessels, trips, sets, and hooks set). For each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, the table includes the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 July-31 December 2022

Set Types Shallow sets Fishing Area All Areas Number of vessels active 17
Number of trips (partial or completed) 26
Number of sets 257
Number of hooks set 326,445

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	9	9	0	0.03
Striped marlin	79	77	2	0.24
Shortbill spearfish	4	4	0	0.01
Swordfish	2,464	2,392	72	7.55
Other billfishes	0	0	0	0.00
Total	2,556	2,482	74	7.83
Shark PMUS				
Blue shark	3,039	0	3,039	9.31
Mako sharks	288	0	288	0.88
Thresher sharks	8	0	8	0.02
Oceanic whitetip shark	2	0	2	0.01
Silky shark	0	0	0	0.00
Total	3,337	0	3,337	10.22
Tuna PMUS				
Albacore	915	898	17	2.80
Bigeye tuna	175	173	2	0.54
Yellowfin tuna	330	320	10	1.01
Bluefin tuna	0	0	0	0.00
Skipjack tuna	3	3	0	0.01
Other tunas	0	0	0	0.00
Total	1,423	1,394	29	4.36
Other PMUS				
Mahimahi	482	482	0	1.48
Moonfish	26	24	2	0.08
Wahoo	6	6	0	0.02
Oilfish	50	21	29	0.15
Pomfret	0	0	0	0.00
Total	564	533	31	1.73
Total PMUS	7,880	4,409	3,471	24.14
Non-PMUS Sharks	2	0	2	0.01
Total Non-PMUS	4	0	4	0.01
Total All Species	7,884	4,409	3,475	24.15

Table 5. Hawaii and California-based pelagic longline vessels semi-annual statistics for all fishing areas and with deep set type, including effort (number of vessels, trips, sets, and hooks set). For each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, the table includes the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Time Period 1 July-31 December 2022

Set Types Deep sets Fishing Area All Areas Number of vessels active 144
Number of trips (partial or completed) 792
Number of sets 10,596
Number of hooks set 31,701,220

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	3,817	3,800	17	0.12
Striped marlin	6,456	6,356	100	0.20
Shortbill spearfish	5,500	5,407	93	0.17
Swordfish	1,294	1,238	56	0.04
Other billfishes	262	256	6	0.01
Total	17,329	17,057	272	0.55
Shark PMUS				
Blue shark	42,668	0	42,668	1.35
Mako sharks	686	6	680	0.02
Thresher sharks	2,121	6	2,115	0.07
Oceanic whitetip shark	215	0	215	0.01
Silky shark	116	0	116	0.00
Total	45,806	12	45,794	1.44
Tuna PMUS				
Albacore	2,837	2,822	15	0.09
Bigeye tuna	83,180	82,109	1,071	2.62
Yellowfin tuna	42,735	42,087	648	1.35
Bluefin tuna	8	7	1	0.00
Skipjack tuna	3,998	3,953	45	0.13
Other tunas	0	0	0	0.00
Total	132,758	130,978	1,780	4.19
Other PMUS				
Mahimahi	28,735	28,254	481	0.91
Moonfish	2,407	2,405	2	0.08
Wahoo	7,998	7,939	59	0.25
Oilfish	4,353	3,554	799	0.14
Pomfret	16,661	16,484	177	0.53
Total	60,154	58,636	1,518	1.90
Total PMUS	256,047	206,683	49,364	8.08
Non-PMUS Sharks	93	1	92	0.00
Total Non-PMUS	3,849	20	3,829	0.12
Total All Species	259,896	206,703	53,193	8.20