

The Hawaii and California-based Pelagic Longline Vessels annual Report for 1 January - 31 December, 2018¹

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This annual report for the period 1 January - 31 December, 2018, contains summary data of fishing effort and catch statistics as reported on longline log sheets for Hawaii and California-based pelagic longline vessels. Data in this report originate from the PIFSC Information Management System (Oracle) table LLDS_RPT_STATS_HC20190907_RFMO, representing preliminary data received as of 07 September 2019. Catch and effort statistics are based on date of longline haul. When a statistic (number of vessels, trips) involves dates of haul in two summary periods (i.e., years, semi-annual, quarters), the item is counted in both summary periods. Thus, a trip total is for “partial and completed” trips. As such, these statistics are not additive (i.e., sum of four quarters is not the total for the year, etc.).

The following tables show fishery statistics for the stated time period, area, and set type, and includes effort (number of vessels, trips, sets, and hooks set), and 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), measured as the number of fish caught per 1,000 hooks.

Additional figures show catch numbers, effort, and spatial distributions for important species for important species for the stated time period, area, and set type, for years 2000-2018.

¹PIFSC Data Report DR-12-047. Issued 12 Dec 2019 <https://doi.org/10.25923/dq48-ef09>

Table 1. Hawaii and California-based pelagic longline vessels annual statistics for all fishing areas and all fishing categories (set types), including effort (number of vessels, trips, sets, and hooks set), and for each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, along with the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1,000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Report Coverage		Number of vessels active		
Time Period	1 January - 31 December, 2018	143		
Set Types	All sets	Number of trips (partial or completed) 1,672		
Fishing Area	All Areas	Number of sets 21,414		
		Number of hooks set 59,000,702		

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	7,565	7,431	134	0.13
Striped marlin	15,789	15,555	234	0.27
Shortbill spearfish	15,521	15,233	288	0.26
Swordfish	12,222	11,508	714	0.21
Other billfishes	469	461	8	0.01
Total	51,566	50,188	1,378	0.87
Shark PMUS				
Blue shark	94,267	0	94,267	1.60
Mako sharks	5,280	731	4,549	0.09
Thresher sharks	5,526	23	5,503	0.09
Oceanic whitetip shark	399	0	399	0.01
Silky shark	236	0	236	0.00
Total	105,708	754	104,954	1.79
Tuna PMUS				
Albacore	3,792	3,748	44	0.06
Bigeye tuna	220,043	214,921	5,122	3.73
Yellowfin tuna	62,485	61,471	1,014	1.06
Bluefin tuna	7	5	2	0.00
Skipjack tuna	18,119	17,718	401	0.31
Other tunas	0	0	0	0.00
Total	304,446	297,863	6,583	5.16
Other PMUS				
Mahimahi	44,768	44,179	589	0.76
Moonfish	33,196	32,825	371	0.56
Wahoo	31,286	31,119	167	0.53
Oilfish	16,927	14,573	2,354	0.29
Pomfret	55,954	55,485	469	0.95
Total	182,131	178,181	3,950	3.09
Total PMUS	643,851	526,986	116,865	10.91
Non-PMUS Sharks	363	0	363	0.01
Total Non-PMUS	4,694	579	4,115	0.08
Total All Species	648,545	527,565	120,980	10.99

Table 2. Hawaii and California-based pelagic longline vessels annual statistics for fishing within the U.S. EEZ (Main Hawaiian Islands, Northwest Hawaiian Islands, or the Pacific Remote Islands, and with all fishing categories (set types), including effort (number of vessels, trips, sets, and hooks set), and for each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, along with the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1,000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Report Coverage		Number of vessels active		
Time Period	1 January - 31 December, 2018	132		
Set Types	All sets	863		
Fishing Area	Inside U.S. EEZ	5,668		
		15,420,748		

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	2,918	2,823	95	0.19
Striped marlin	5,388	5,377	11	0.35
Shortbill spearfish	5,034	5,022	12	0.33
Swordfish	1,680	1,602	78	0.11
Other billfishes	150	149	1	0.01
Total	15,170	14,973	197	0.98
Shark PMUS				
Blue shark	24,175	0	24,175	1.57
Mako sharks	1,156	206	950	0.07
Thresher sharks	1,125	2	1,123	0.07
Oceanic whitetip shark	153	0	153	0.01
Silky shark	120	0	120	0.01
Total	26,729	208	26,521	1.73
Tuna PMUS				
Albacore	292	291	1	0.02
Bigeye tuna	46,416	45,583	833	3.01
Yellowfin tuna	19,659	19,260	399	1.27
Bluefin tuna	0	0	0	0.00
Skipjack tuna	5,424	5,330	94	0.35
Other tunas	0	0	0	0.00
Total	71,791	70,464	1,327	4.66
Other PMUS				
Mahimahi	10,238	10,170	68	0.66
Moonfish	2,637	2,632	5	0.17
Wahoo	7,212	7,168	44	0.47
Oilfish	4,754	4,211	543	0.31
Pomfret	13,074	13,003	71	0.85
Total	37,915	37,184	731	2.46
Total PMUS	151,605	122,829	28,776	9.83
Non-PMUS Sharks	41	0	41	0.00
Total Non-PMUS	683	450	233	0.04
Total All Species	152,288	123,279	29,009	9.88

Table 3. Hawaii and California-based pelagic longline vessels 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), and for each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, along with the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1,000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Report Coverage		Number of vessels active		
Time Period	1 January - 31 December, 2018	141		
Set Types	All sets	Number of trips (partial or completed) 1,458		
Fishing Area	Outside U.S. EEZ	Number of sets 15,746		
		Number of hooks set 43,579,954		

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	4,647	4,608	39	0.11
Striped marlin	10,401	10,178	223	0.24
Shortbill spearfish	10,487	10,211	276	0.24
Swordfish	10,542	9,906	636	0.24
Other billfishes	319	312	7	0.01
Total	36,396	35,215	1,181	0.84
Shark PMUS				
Blue shark	70,092	0	70,092	1.61
Mako sharks	4,124	525	3,599	0.09
Thresher sharks	4,401	21	4,380	0.10
Oceanic whitetip shark	246	0	246	0.01
Silky shark	116	0	116	0.00
Total	78,979	546	78,433	1.81
Tuna PMUS				
Albacore	3,500	3,457	43	0.08
Bigeye tuna	173,627	169,338	4,289	3.98
Yellowfin tuna	42,826	42,211	615	0.98
Bluefin tuna	7	5	2	0.00
Skipjack tuna	12,695	12,388	307	0.29
Other tunas	0	0	0	0.00
Total	232,655	227,399	5,256	5.34
Other PMUS				
Mahimahi	34,530	34,009	521	0.79
Moonfish	30,559	30,193	366	0.70
Wahoo	24,074	23,951	123	0.55
Oilfish	12,173	10,362	1,811	0.28
Pomfret	42,880	42,482	398	0.98
Total	144,216	140,997	3,219	3.31
Total PMUS	492,246	404,157	88,089	11.30
Non-PMUS Sharks	322	0	322	0.01
Total Non-PMUS	4,011	129	3,882	0.09
Total All Species	496,257	404,286	91,971	11.39

Table 4. Hawaii and California-based pelagic longline vessels annual statistics for all fishing areas and with shallow set type, including effort (number of vessels, trips, sets, and hooks set), and for each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, along with the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1,000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Report Coverage		Number of vessels active		
Time Period	1 January - 31 December, 2018	11		
Set Types	Shallow sets	Number of trips (partial or completed) 30		
Fishing Area	All Areas	Number of sets 420		
		Number of hooks set 499,809		

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	5	2	3	0.01
Striped marlin	62	41	21	0.12
Shortbill spearfish	44	39	5	0.09
Swordfish	6,110	5,644	466	12.22
Other billfishes	0	0	0	0.00
Total	6,221	5,726	495	12.45
Shark PMUS				
Blue shark	2,538	0	2,538	5.08
Mako sharks	346	63	283	0.69
Thresher sharks	25	1	24	0.05
Oceanic whitetip shark	0	0	0	0.00
Silky shark	0	0	0	0.00
Total	2,909	64	2,845	5.82
Tuna PMUS				
Albacore	137	136	1	0.27
Bigeye tuna	1,291	1,221	70	2.58
Yellowfin tuna	778	761	17	1.56
Bluefin tuna	2	2	0	0.00
Skipjack tuna	16	16	0	0.03
Other tunas	0	0	0	0.00
Total	2,224	2,136	88	4.45
Other PMUS				
Mahimahi	639	626	13	1.28
Moonfish	172	157	15	0.34
Wahoo	26	24	2	0.05
Oilfish	169	66	103	0.34
Pomfret	24	17	7	0.05
Total	1,030	890	140	2.06
Total PMUS	12,384	8,816	3,568	24.78
Non-PMUS Sharks	1	0	1	0.00
Total Non-PMUS	1	0	1	0.00
Total All Species	12,385	8,816	3,569	24.78

Table 5. Hawaii and California-based pelagic longline vessels annual statistics for all fishing areas and with deep set type, including effort (number of vessels, trips, sets, and hooks set), and for each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, along with the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1,000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Report Coverage		Number of vessels active	
Time Period	1 January - 31 December, 2018		143
Set Types	Deep sets	Number of trips (partial or completed)	1,642
Fishing Area	All Areas	Number of sets	20,994
		Number of hooks set	58,500,893

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	7,560	7,429	131	0.13
Striped marlin	15,727	15,514	213	0.27
Shortbill spearfish	15,477	15,194	283	0.26
Swordfish	6,112	5,864	248	0.10
Other billfishes	469	461	8	0.01
Total	45,345	44,462	883	0.78
Shark PMUS				
Blue shark	91,729	0	91,729	1.57
Mako sharks	4,934	668	4,266	0.08
Thresher sharks	5,501	22	5,479	0.09
Oceanic whitetip shark	399	0	399	0.01
Silky shark	236	0	236	0.00
Total	102,799	690	102,109	1.76
Tuna PMUS				
Albacore	3,655	3,612	43	0.06
Bigeye tuna	218,752	213,700	5,052	3.74
Yellowfin tuna	61,707	60,710	997	1.05
Bluefin tuna	5	3	2	0.00
Skipjack tuna	18,103	17,702	401	0.31
Other tunas	0	0	0	0.00
Total	302,222	295,727	6,495	5.17
Other PMUS				
Mahimahi	44,129	43,553	576	0.75
Moonfish	33,024	32,668	356	0.56
Wahoo	31,260	31,095	165	0.53
Oilfish	16,758	14,507	2,251	0.29
Pomfret	55,930	55,468	462	0.96
Total	181,101	177,291	3,810	3.10
Total PMUS	631,467	518,170	113,297	10.79
Non-PMUS Sharks	362	0	362	0.01
Total Non-PMUS	4,693	579	4,114	0.08
Total All Species	636,160	518,749	117,411	10.87

Table 6. Hawaii and California-based pelagic longline vessels annual statistics for fishing within the U.S. EEZ (Main Hawaiian Islands, Northwest Hawaiian Islands, or the Pacific Remote Islands, and with deep sets, including effort (number of vessels, trips, sets, and hooks set), and for each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, along with the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1,000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Report Coverage		Summary Statistics		
Time Period	1 January - 31 December, 2018	Number of vessels active	132	
Set Types	Deep sets	Number of trips (partial or completed)	860	
Fishing Area	Inside U.S. EEZ	Number of sets	5,663	
		Number of hooks set	15,414,926	

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	2,917	2,822	95	0.19
Striped marlin	5,387	5,376	11	0.35
Shortbill spearfish	5,034	5,022	12	0.33
Swordfish	1,622	1,552	70	0.11
Other billfishes	150	149	1	0.01
Total	15,110	14,921	189	0.98
Shark PMUS				
Blue shark	24,157	0	24,157	1.57
Mako sharks	1,152	203	949	0.07
Thresher sharks	1,125	2	1,123	0.07
Oceanic whitetip shark	153	0	153	0.01
Silky shark	120	0	120	0.01
Total	26,707	205	26,502	1.73
Tuna PMUS				
Albacore	292	291	1	0.02
Bigeye tuna	46,404	45,571	833	3.01
Yellowfin tuna	19,648	19,249	399	1.27
Bluefin tuna	0	0	0	0.00
Skipjack tuna	5,424	5,330	94	0.35
Other tunas	0	0	0	0.00
Total	71,768	70,441	1,327	4.66
Other PMUS				
Mahimahi	10,226	10,158	68	0.66
Moonfish	2,637	2,632	5	0.17
Wahoo	7,211	7,167	44	0.47
Oilfish	4,751	4,208	543	0.31
Pomfret	13,074	13,003	71	0.85
Total	37,899	37,168	731	2.46
Total PMUS	151,484	122,735	28,749	9.83
Non-PMUS Sharks	41	0	41	0.00
Total Non-PMUS	683	450	233	0.04
Total All Species	152,167	123,185	28,982	9.87

Table 7. Hawaii and California-based pelagic longline vessels annual statistics for fishing outside the U.S. EEZ and with deep sets, including effort (number of vessels, trips, sets, and hooks set), and for each listed species, organized by pelagic management unit species (PMUS) groups of billfish, shark, tuna, and other, along with the number of fish caught, kept, and released, and the catch per unit effort (CPUE, number per 1,000 hooks, calculated as the sum of fish caught divided by the sum of hooks set). Data Source: PIFSC Information Management System, Longline Logbook Data.

Report Coverage		Number of vessels active		
Time Period	1 January - 31 December, 2018	141		
Set Types	Deep sets	Number of trips (partial or completed) 1,428		
Fishing Area	Outside U.S. EEZ	Number of sets 15,331		
		Number of hooks set 43,085,967		

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	4,643	4,607	36	0.11
Striped marlin	10,340	10,138	202	0.24
Shortbill spearfish	10,443	10,172	271	0.24
Swordfish	4,490	4,312	178	0.10
Other billfishes	319	312	7	0.01
Total	30,235	29,541	694	0.70
Shark PMUS				
Blue shark	67,572	0	67,572	1.57
Mako sharks	3,782	465	3,317	0.09
Thresher sharks	4,376	20	4,356	0.10
Oceanic whitetip shark	246	0	246	0.01
Silky shark	116	0	116	0.00
Total	76,092	485	75,607	1.77
Tuna PMUS				
Albacore	3,363	3,321	42	0.08
Bigeye tuna	172,348	168,129	4,219	4.00
Yellowfin tuna	42,059	41,461	598	0.98
Bluefin tuna	5	3	2	0.00
Skipjack tuna	12,679	12,372	307	0.29
Other tunas	0	0	0	0.00
Total	230,454	225,286	5,168	5.35
Other PMUS				
Mahimahi	33,903	33,395	508	0.79
Moonfish	30,387	30,036	351	0.71
Wahoo	24,049	23,928	121	0.56
Oilfish	12,007	10,299	1,708	0.28
Pomfret	42,856	42,465	391	0.99
Total	143,202	140,123	3,079	3.32
Total PMUS	479,983	395,435	84,548	11.14
Non-PMUS Sharks	321	0	321	0.01
Total Non-PMUS	4,010	129	3,881	0.09
Total All Species	483,993	395,564	88,429	11.23

Active Vessels

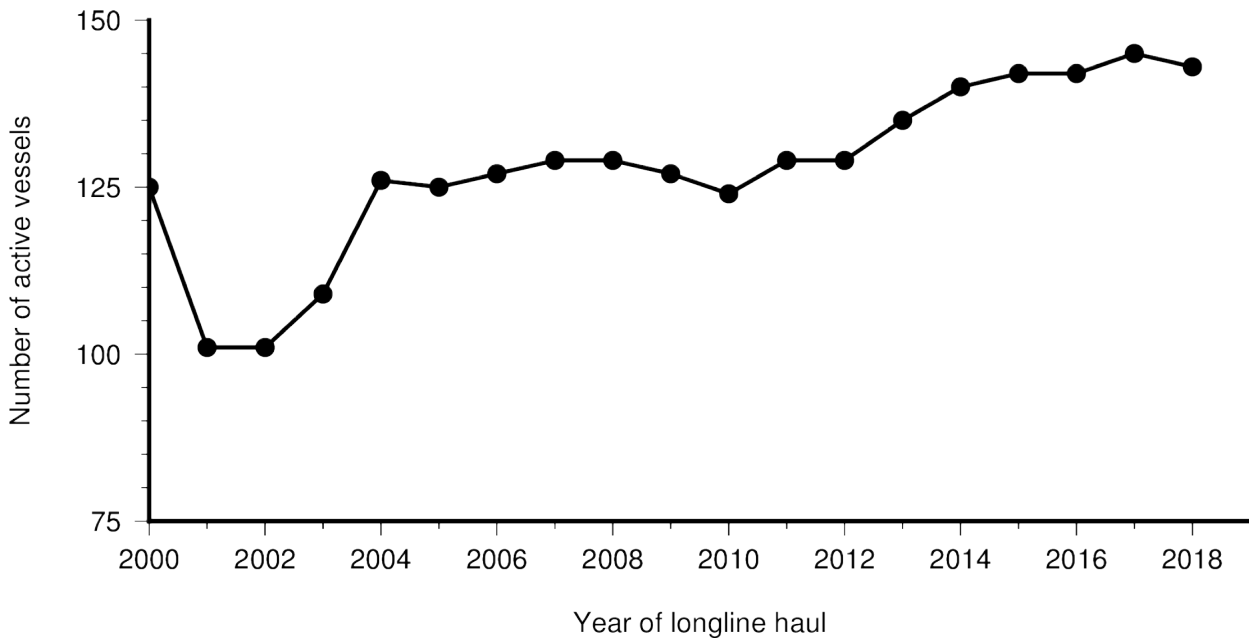


Figure 1: Number of active longline vessels based in Hawaii and California, by year for haul years 2000-2018.

Trips

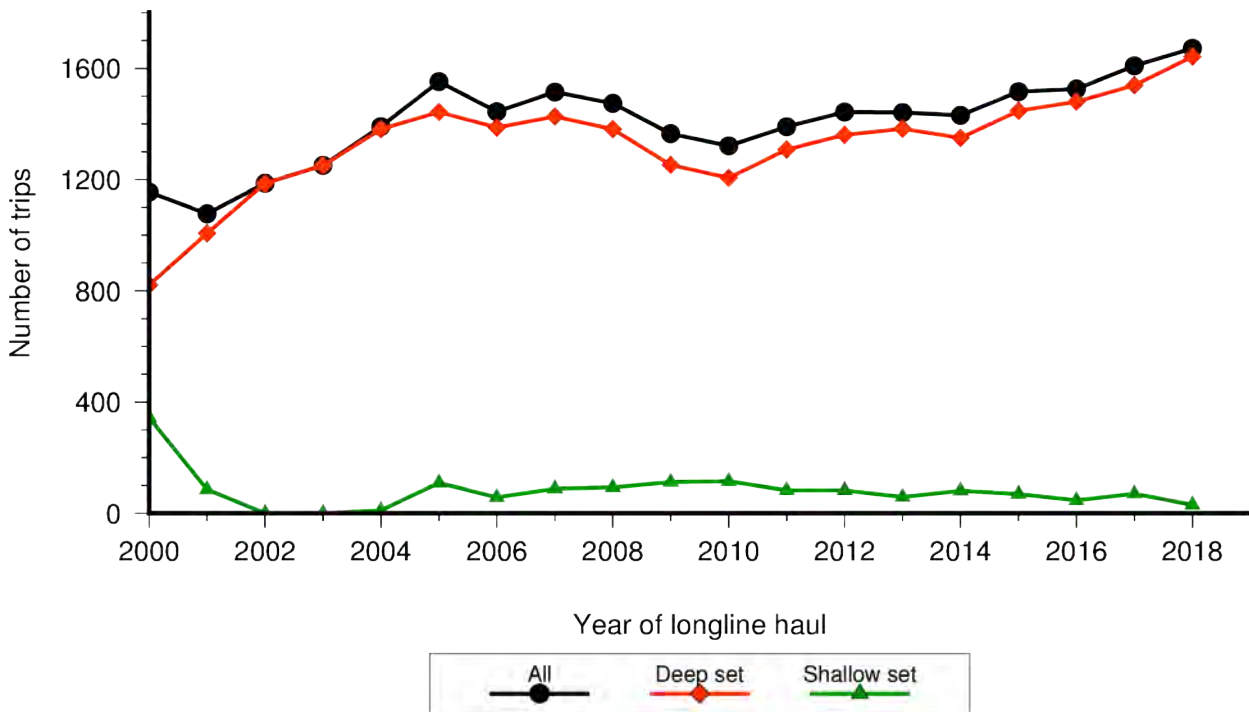


Figure 2: Number of longline trips based in Hawaii and California, by year for haul years 2000-2018.

Sets

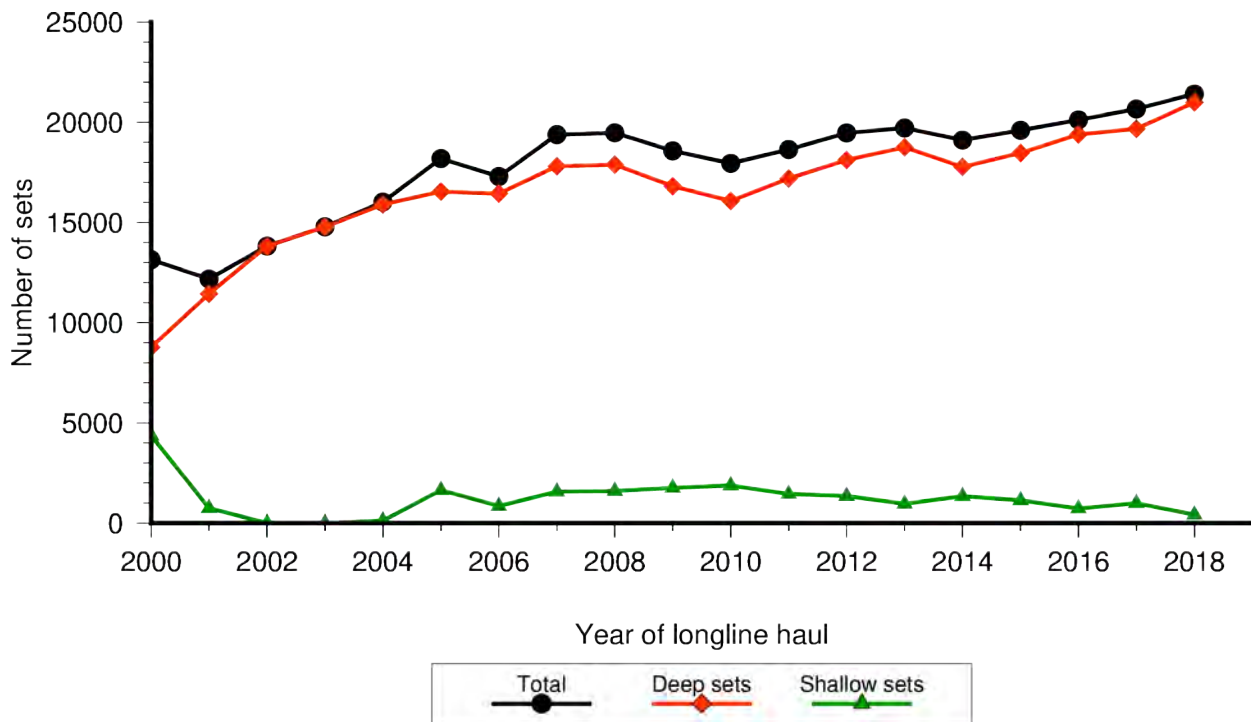


Figure 3: Number of fishing sets by vessels based in Hawaii and California, by year for haul years 2000-2018.

Hooks Set

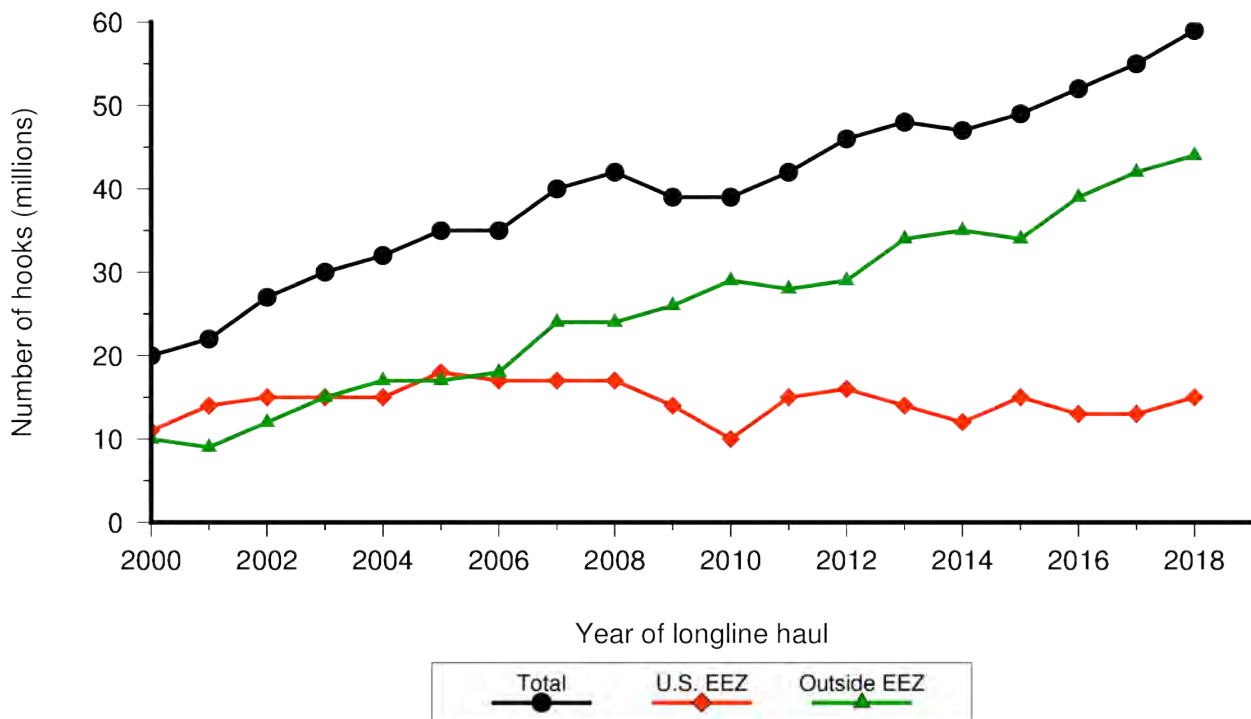


Figure 4: Number of hooks in millions, set by vessels based in Hawaii and California, by year, 2000-2018.

Tuna Catch

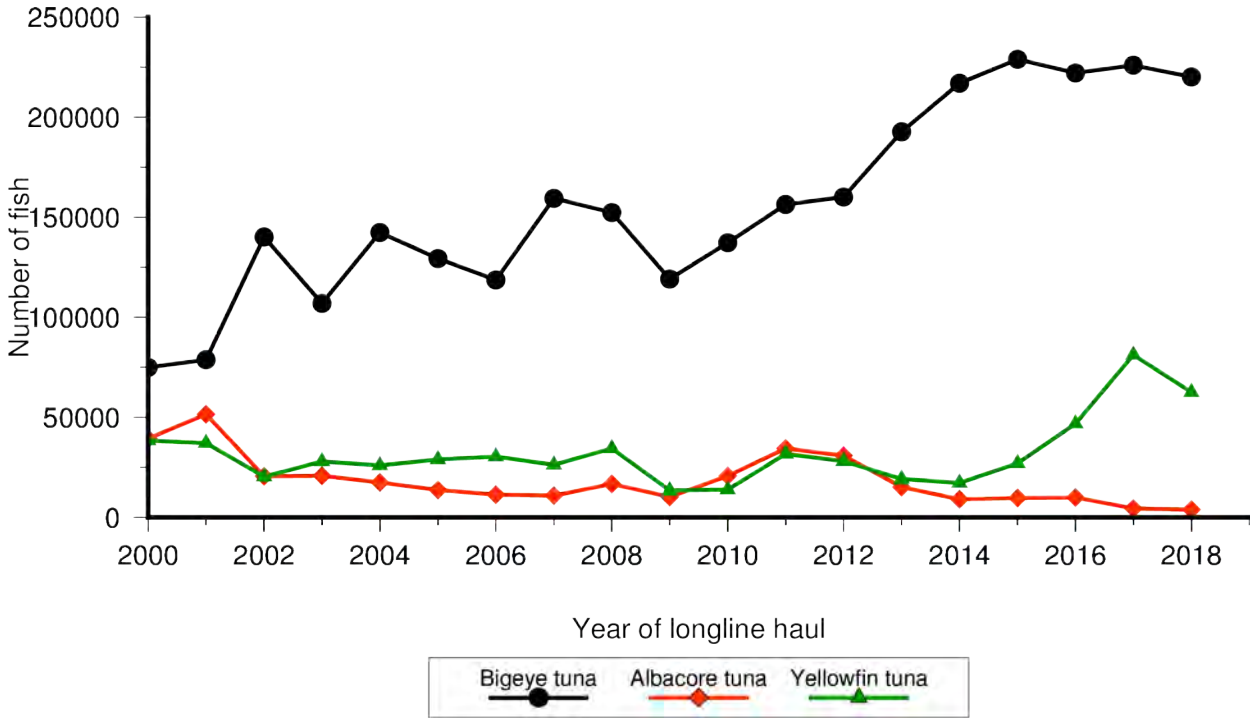


Figure 5: Annual catch (kept + released) of albacore tuna, bigeye tuna, and yellowfin tuna by longline vessels based in Hawaii and California, by year, 2000-2018.

Billfish Catch

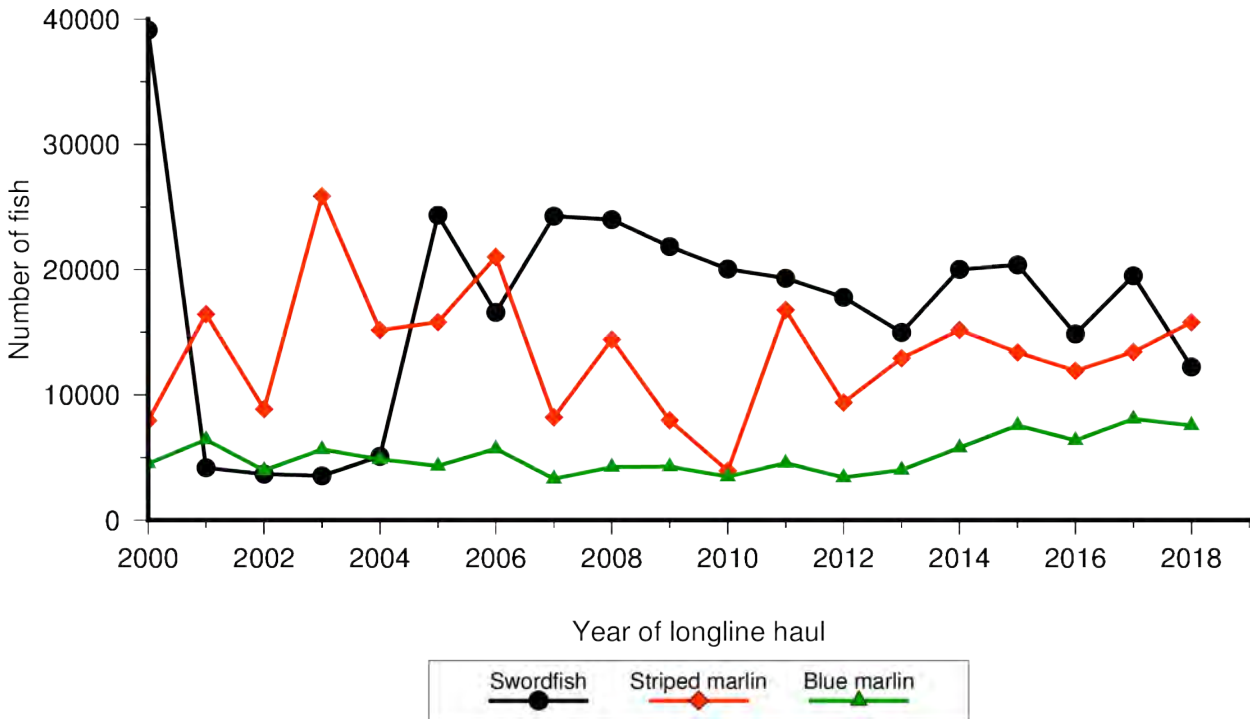


Figure 6: Annual catch (kept + released) of swordfish, striped marlin, and blue marlin by longline vessels based in Hawaii and California, by year, 2000-2018.

Shark Catch

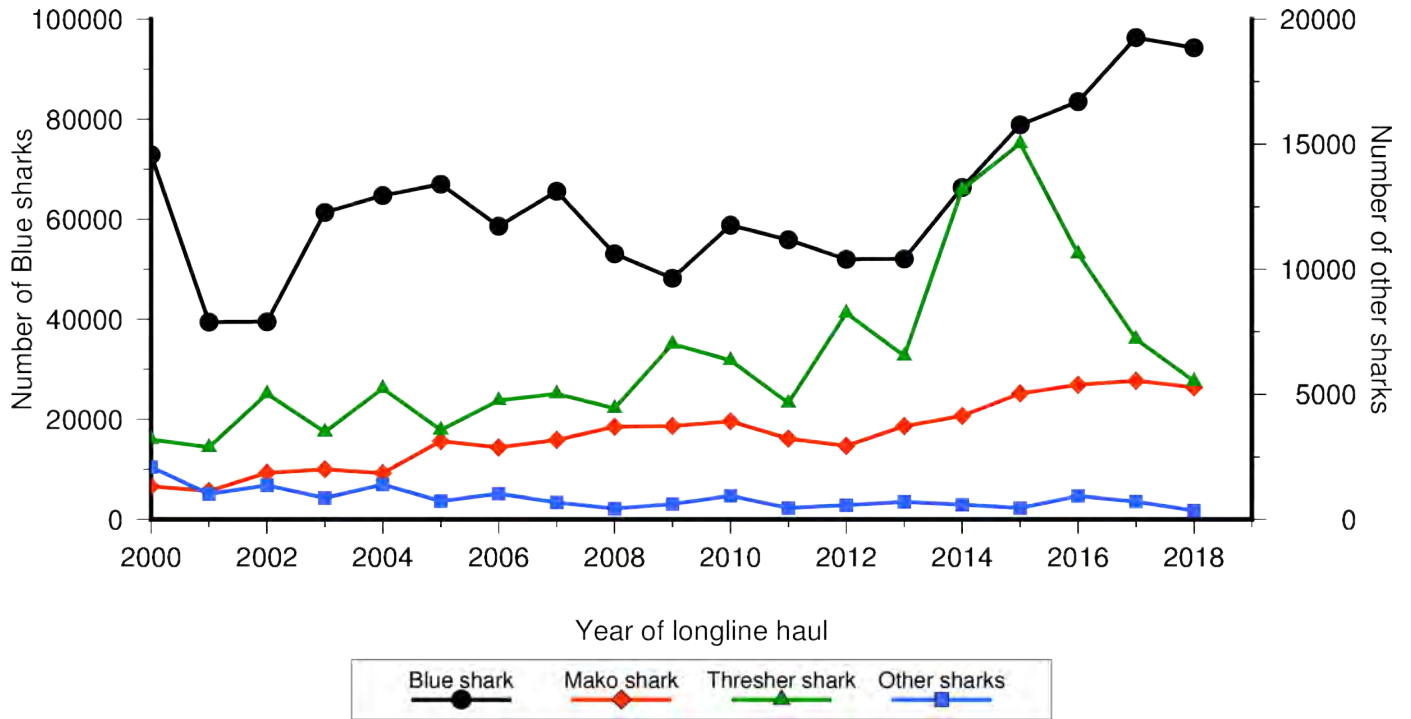


Figure 7: Annual catch (kept + released) of blue shark, mako shark, thresher shark, and other sharks by longline vessels based in Hawaii and California, by year, 2000-2018.

Other PMUS Catch

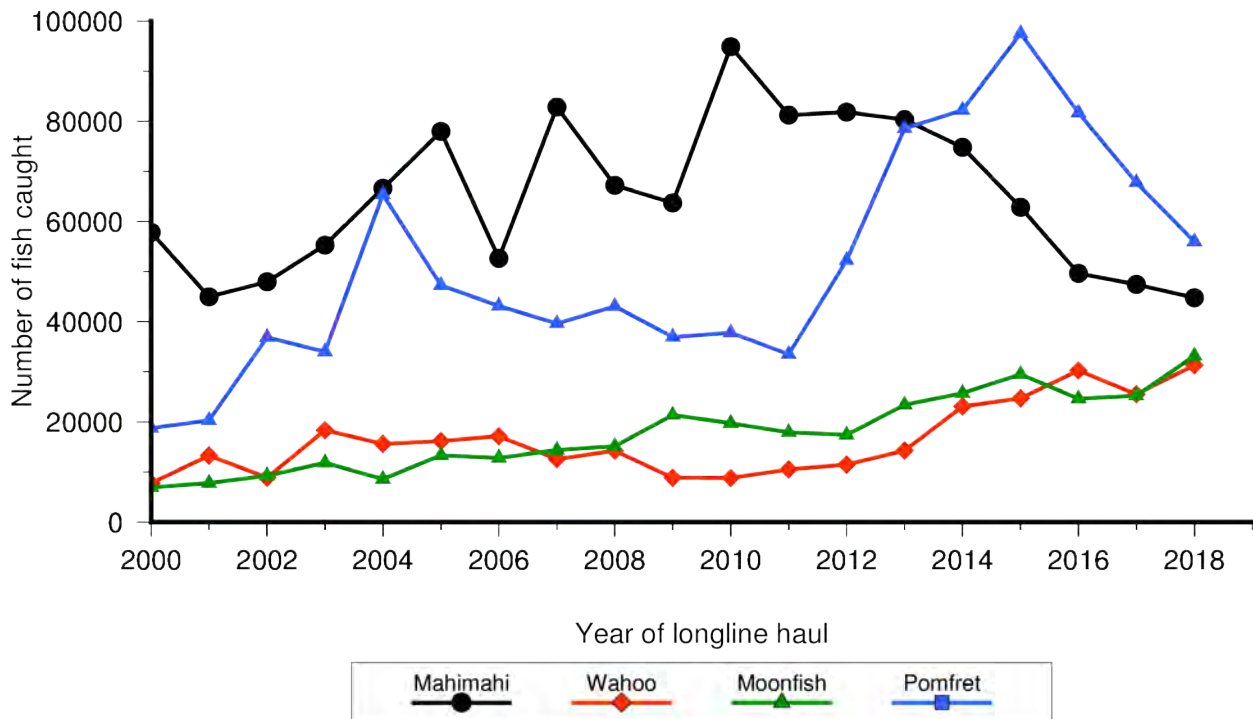


Figure 8: Annual catch (kept + released) of mahimahi, wahoo, moonfish, and pomfret by longline vessels based in Hawaii and California, by year, 2000-2018.

Sets

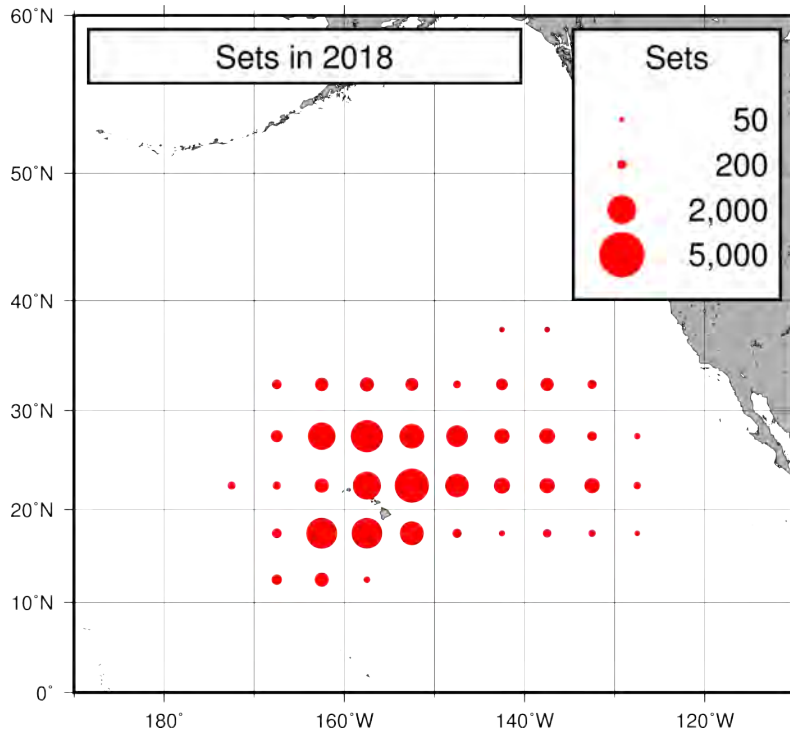


Figure 9: Spatial distribution of the total number of sets by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

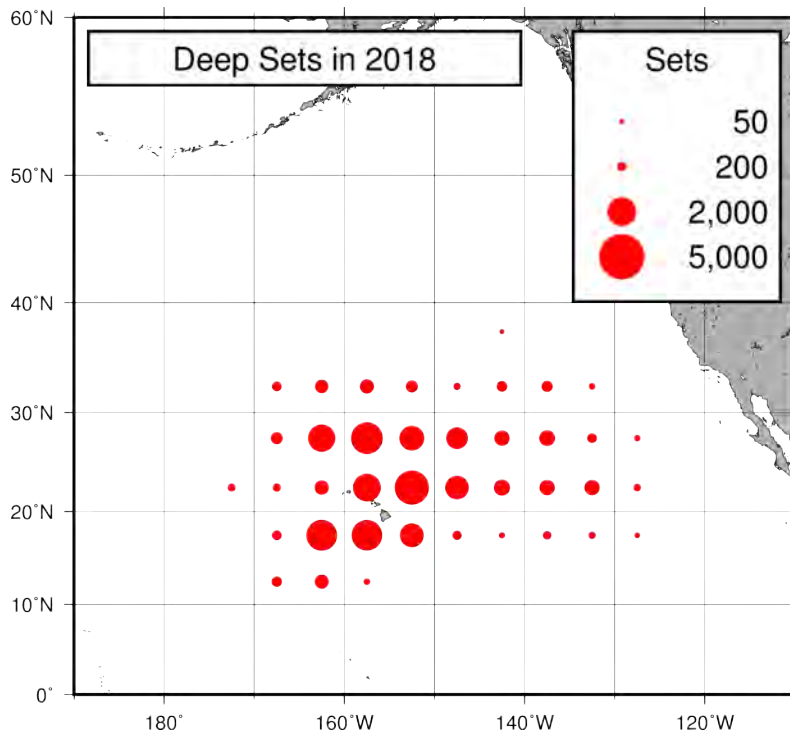


Figure 10: Spatial distribution of the number of deep-set sets by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

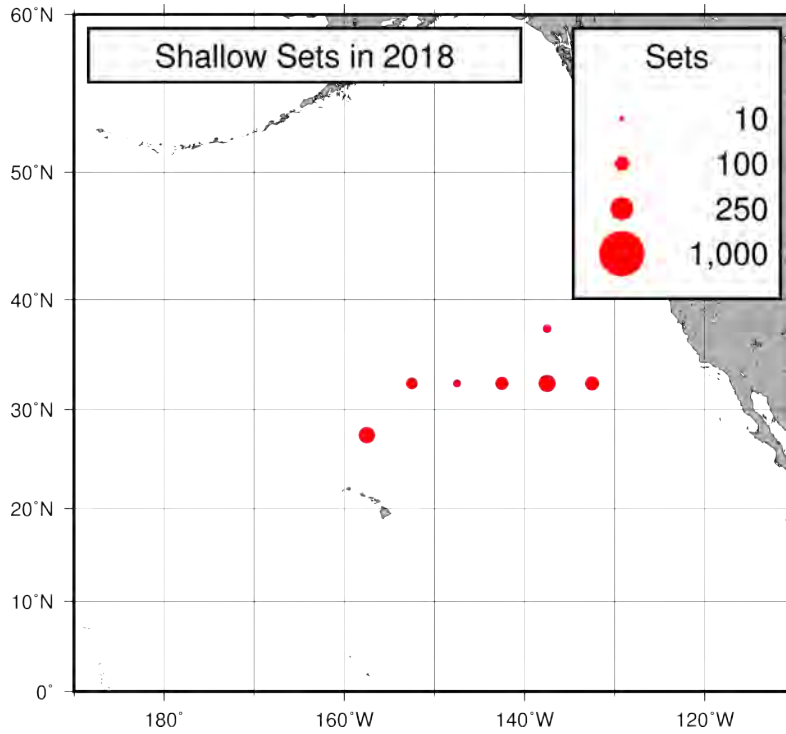


Figure 11: Spatial distribution of the number of shallow-set sets by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

Total Effort

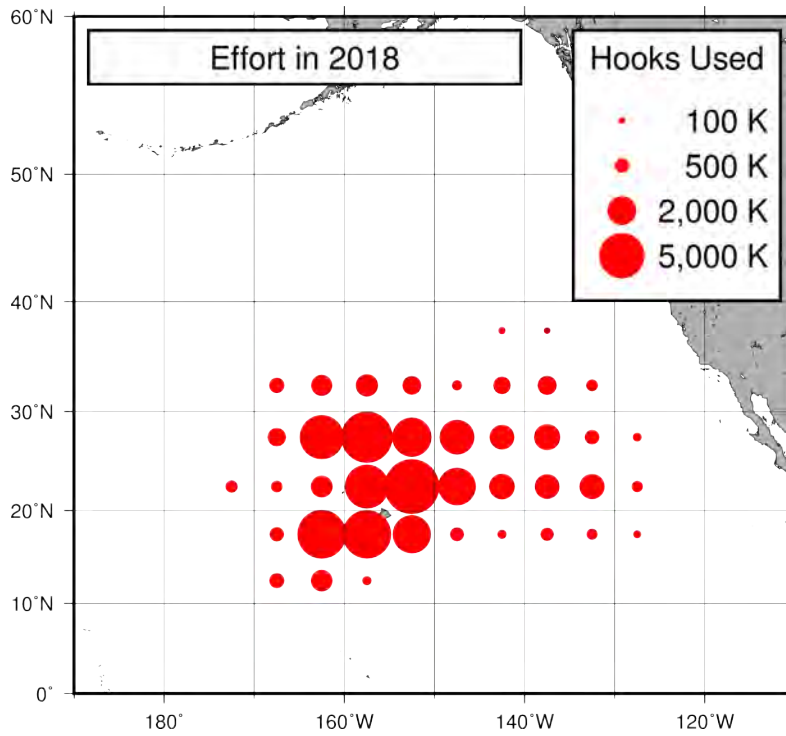


Figure 12: Spatial distribution of the total number of hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

Deep Effort

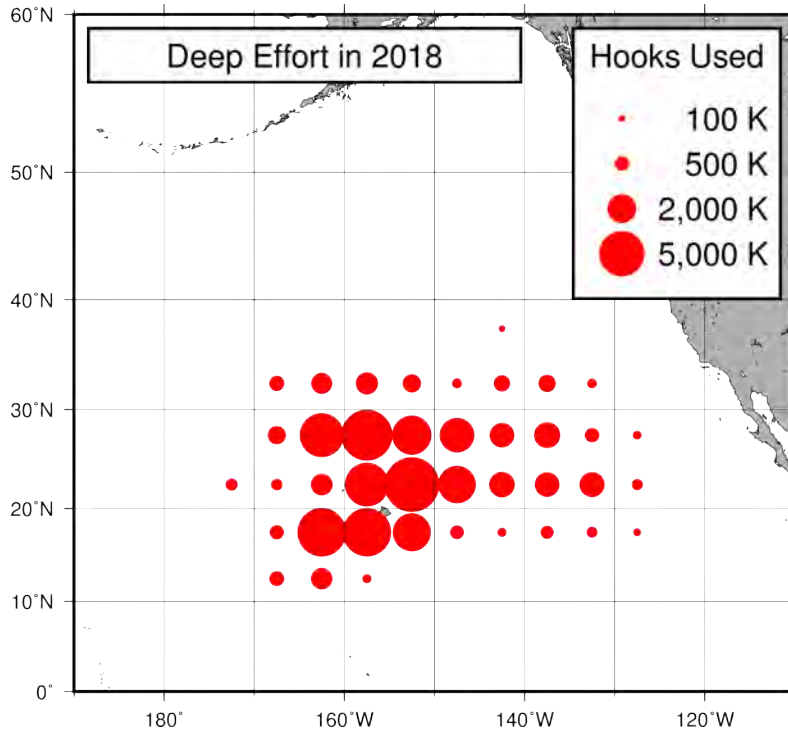


Figure 13: Spatial distribution of the number of deep-set hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

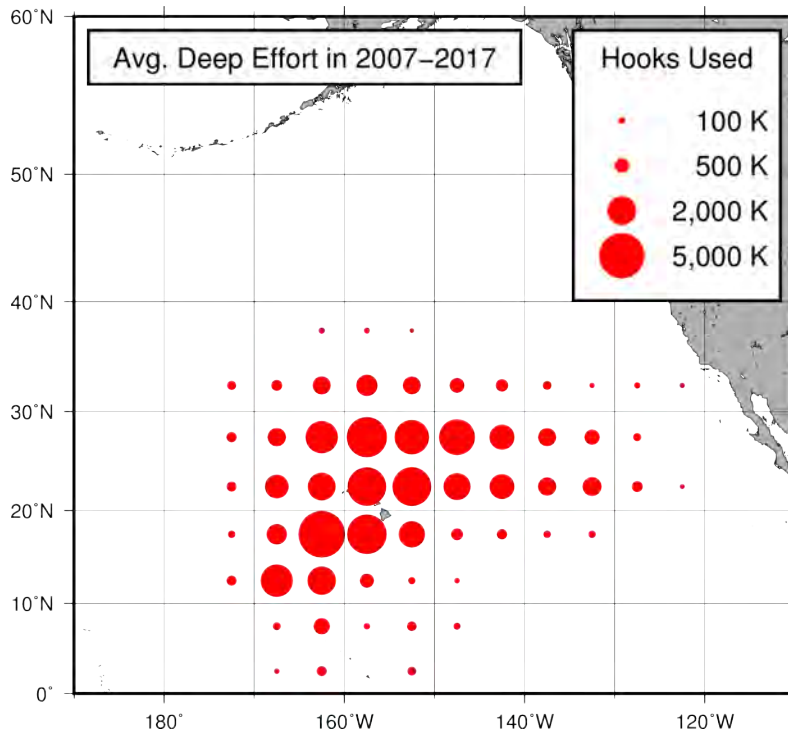


Figure 14: Spatial distribution of the average number of deep-set hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2007-2017 .

Shallow Effort

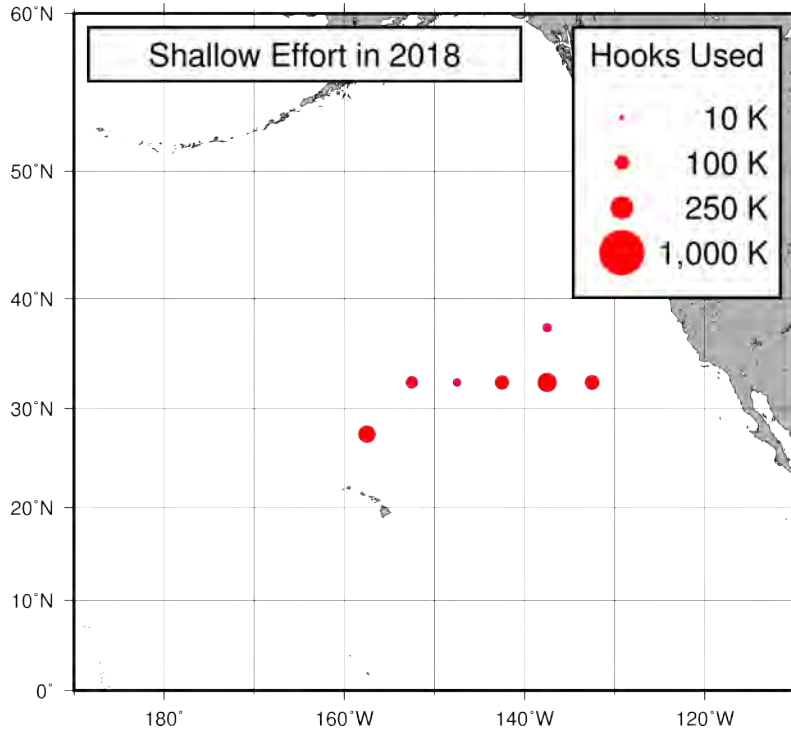


Figure 15: Spatial distribution of the number of shallow-set hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

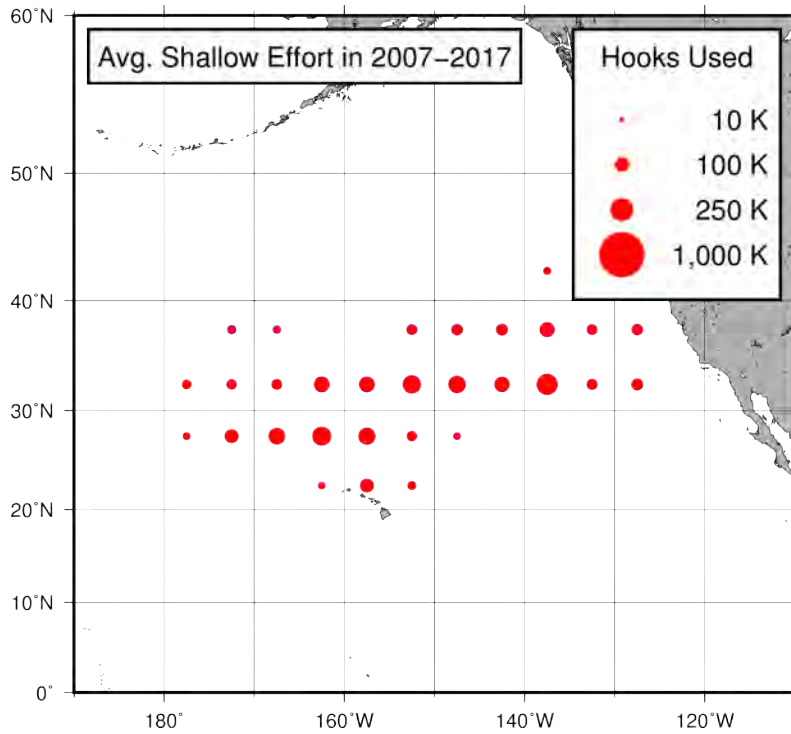


Figure 16: Spatial distribution of the average number of shallow-set hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2007-2017 .

Bigeye Catch

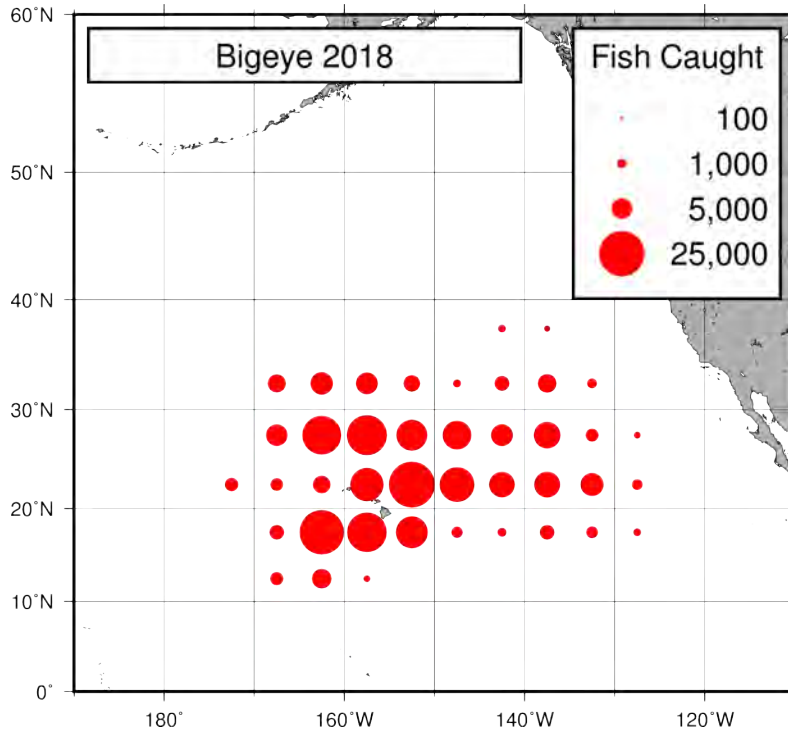


Figure 17: Spatial distribution of the total number of bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

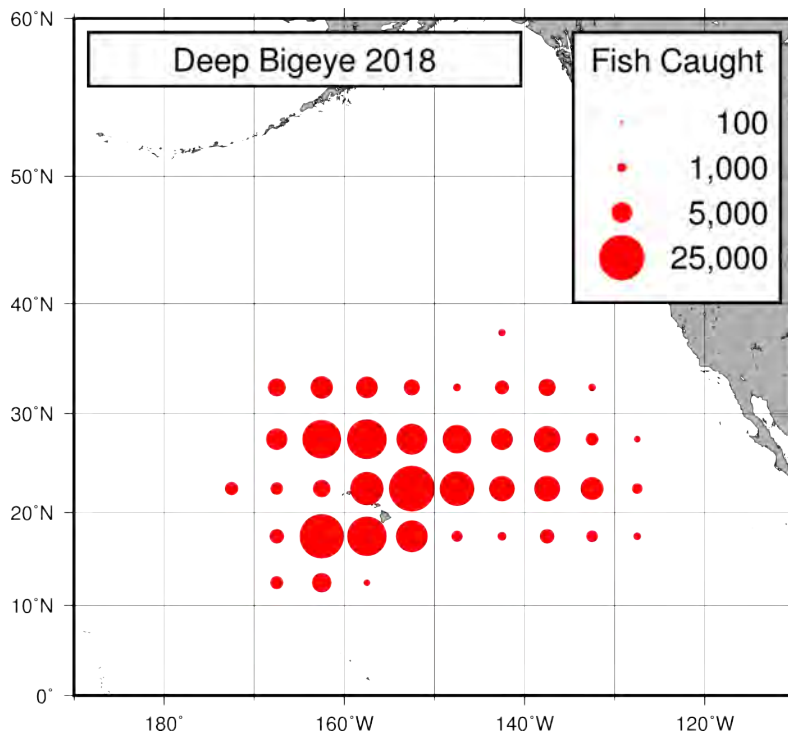


Figure 18: Spatial distribution of the number of deep-set bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

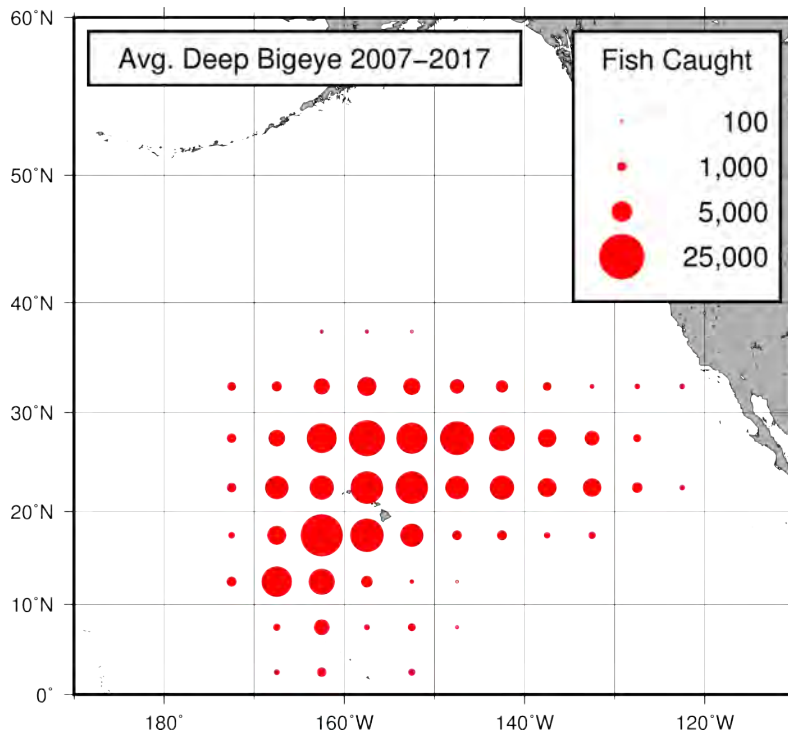


Figure 19: Spatial distribution of the average number of deep-set bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2007-2017.

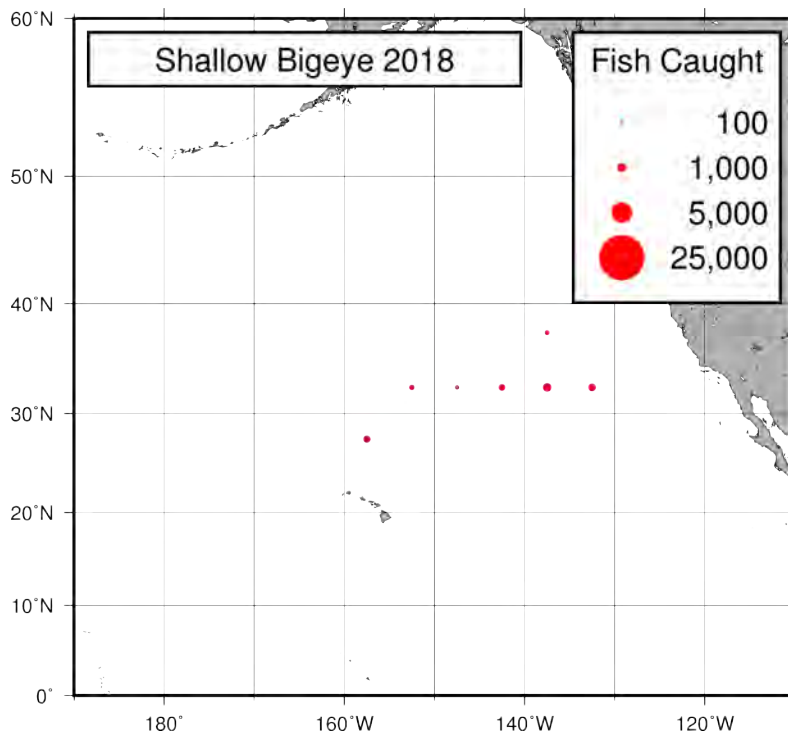


Figure 20: Spatial distribution of the number of shallow-set bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

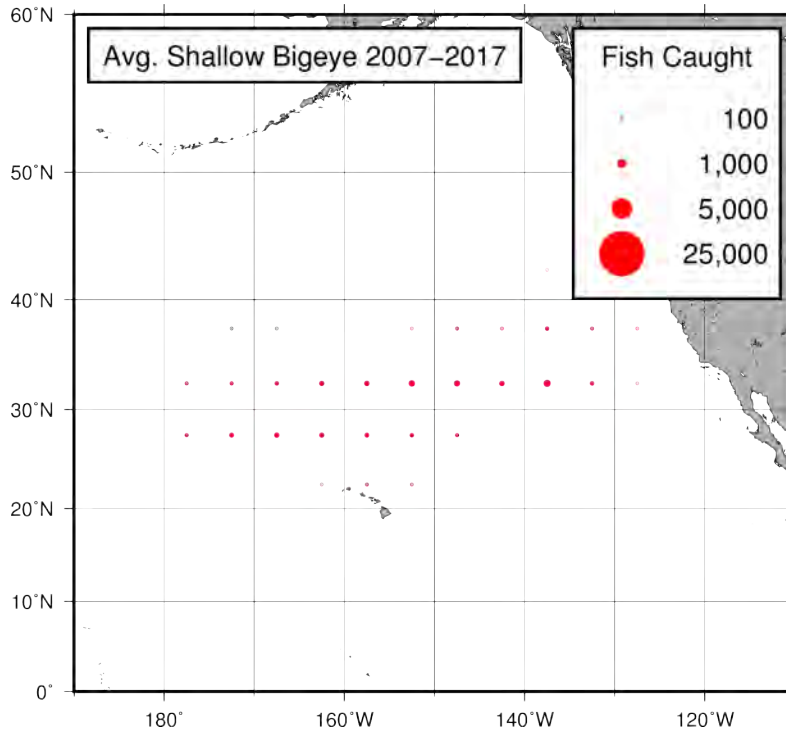


Figure 21: Spatial distribution of the average number of shallow-set bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2007-2017.

Swordfish

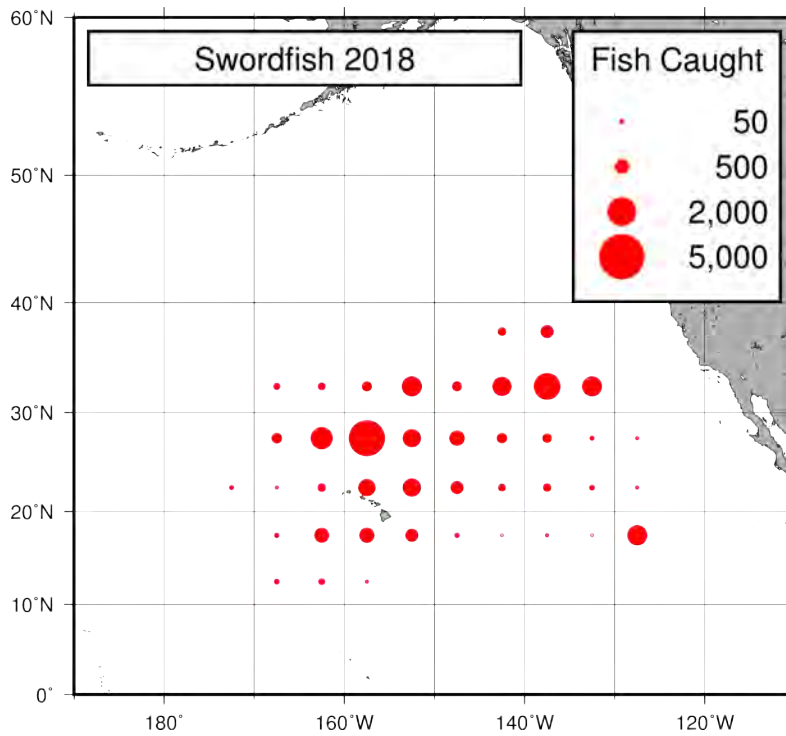


Figure 22: Spatial distribution of the total number of swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

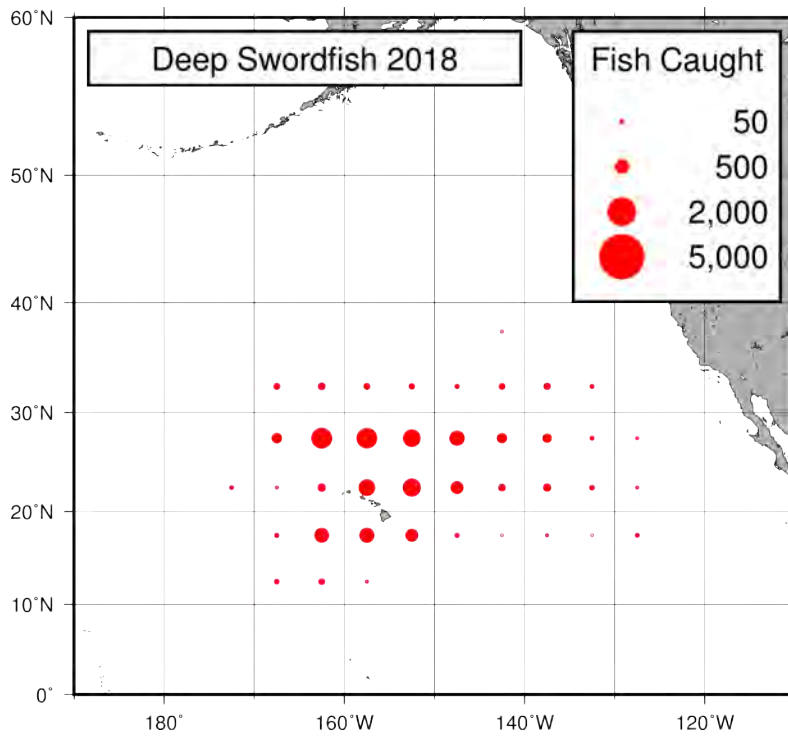


Figure 23: Spatial distribution of the number of deep-set swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

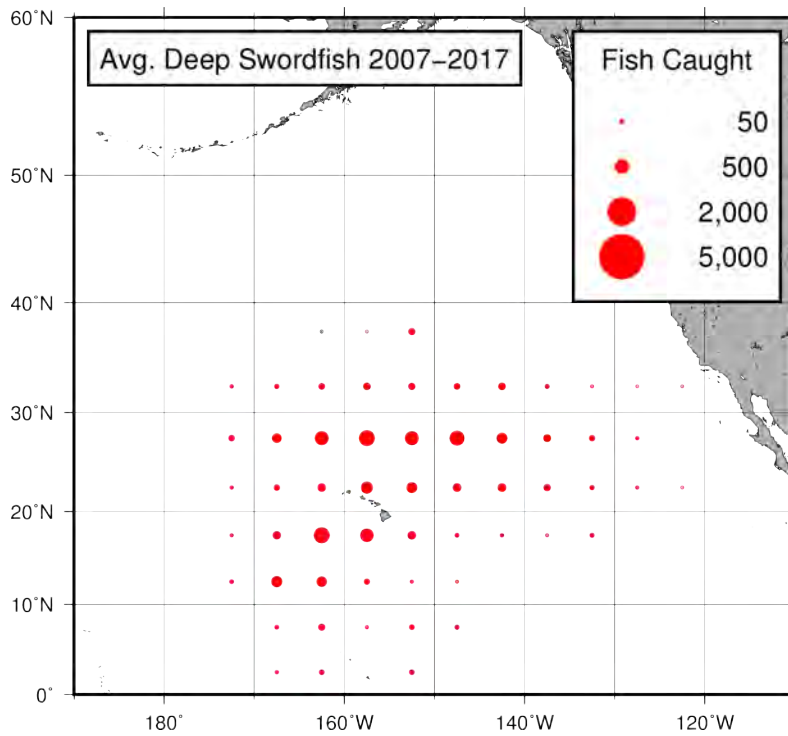


Figure 24: Spatial distribution of the average number of deep-set swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2007-2017.

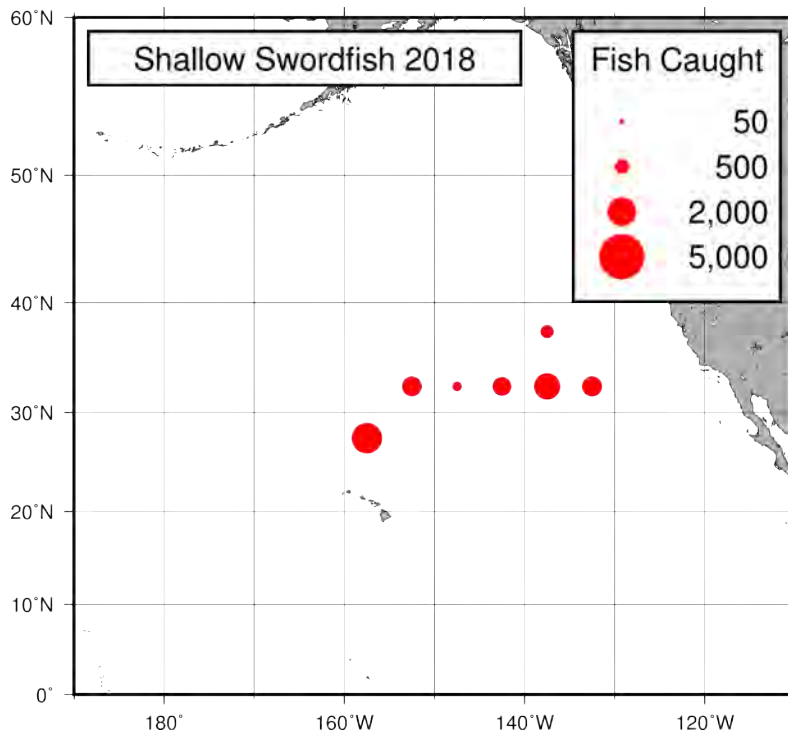


Figure 25: Spatial distribution of the number of shallow-set swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2018 (provisional data).

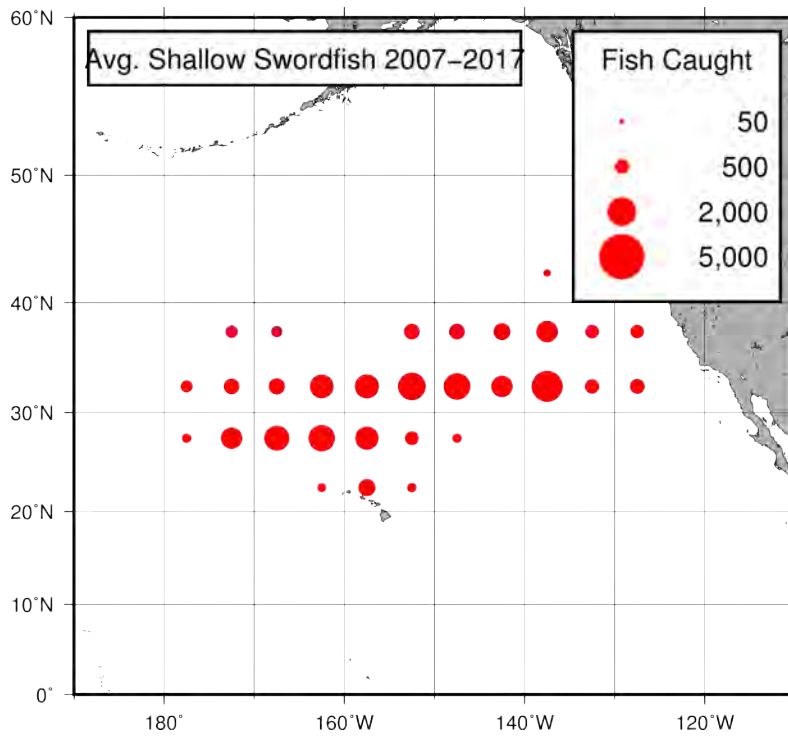


Figure 26: Spatial distribution of the average number of shallow-set swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2007-2017.