

**The Hawaii and California-based Pelagic Longline Vessels
Annual Report for 1 January-31 December 2022**

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This annual report for the 1 January-31 December 2022 period 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_HC20230223_RFMO, representing preliminary data received as of 23 February 2023. 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).

The following tables show fishery statistics for the stated time period, area, and set type, and include 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), measured as the number of fish caught per 1000 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 2000-2022.

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. Some vessels operating in California had Hawaii limited-entry permits.

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>

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). 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.

Report Coverage

Time Period 1 January-31 December 2022
 Set Types All sets
 Fishing Area All Areas

Number of vessels active	147
Number of trips (partial or completed)	1,598
Number of sets	22,155
Number of hooks set	64,395,070

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	7,158	7,117	41	0.11
Striped marlin	11,521	11,361	160	0.18
Shortbill spearfish	11,093	10,850	243	0.17
Swordfish	13,233	12,898	335	0.21
Other billfishes	465	455	10	0.01
Total	43,470	42,681	789	0.68
Shark PMUS				
Blue shark	84,975	0	84,975	1.32
Mako sharks	2,297	23	2,274	0.04
Thresher sharks	8,259	31	8,228	0.13
Oceanic whitetip shark	410	0	410	0.01
Silky shark	238	0	238	0.00
Total	96,179	54	96,125	1.49
Tuna PMUS				
Albacore	12,933	12,267	666	0.20
Bigeye tuna	172,401	169,831	2,570	2.68
Yellowfin tuna	85,036	83,182	1,854	1.32
Bluefin tuna	15	14	1	0.00
Skipjack tuna	12,617	12,457	160	0.20
Other tunas	0	0	0	0.00
Total	283,002	277,751	5,251	4.39
Other PMUS				
Mahimahi	37,253	36,692	561	0.58
Moonfish	4,984	4,978	6	0.08
Wahoo	17,536	17,441	95	0.27
Oilfish	9,891	7,968	1,923	0.15
Pomfret	31,689	31,282	407	0.49
Total	101,353	98,361	2,992	1.57
Total PMUS	524,004	418,847	105,157	8.14
Non-PMUS Sharks	252	1	251	0.00
Total Non-PMUS	6,546	162	6,384	0.10
Total All Species	530,550	419,009	111,541	8.24

Table 2. Hawaii and California-based pelagic longline vessels 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.

Report Coverage		Number of vessels active		
Time Period	1 January-31 December 2022	136		
Set Types	All sets	Number of trips (partial or completed) 818		
Fishing Area	Inside U.S. EEZ	Number of sets 5,631		
		Number of hooks set 16,608,234		

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	1,738	1,729	9	0.10
Striped marlin	3,318	3,290	28	0.20
Shortbill spearfish	3,482	3,447	35	0.21
Swordfish	949	921	28	0.06
Other billfishes	94	93	1	0.01
Total	9,581	9,480	101	0.58
Shark PMUS				
Blue shark	20,171	0	20,171	1.21
Mako sharks	354	2	352	0.02
Thresher sharks	1,839	8	1,831	0.11
Oceanic whitetip shark	131	0	131	0.01
Silky shark	86	0	86	0.01
Total	22,581	10	22,571	1.36
Tuna PMUS				
Albacore	650	642	8	0.04
Bigeye tuna	35,358	34,940	418	2.13
Yellowfin tuna	20,501	20,077	424	1.23
Bluefin tuna	4	4	0	0.00
Skipjack tuna	3,607	3,568	39	0.22
Other tunas	0	0	0	0.00
Total	60,120	59,231	889	3.62
Other PMUS				
Mahimahi	5,775	5,675	100	0.35
Moonfish	480	479	1	0.03
Wahoo	3,787	3,769	18	0.23
Oilfish	2,988	2,438	550	0.18
Pomfret	6,008	5,908	100	0.36
Total	19,038	18,269	769	1.15
Total PMUS	111,320	86,990	24,330	6.70
Non-PMUS Sharks	66	0	66	0.00
Total Non-PMUS	2,472	67	2,405	0.15
Total All Species	113,792	87,057	26,735	6.85

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). 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.

Report Coverage

Time Period 1 January-31 December 2022
 Set Types All sets
 Fishing Area Outside U.S. EEZ

Number of vessels active	145
Number of trips (partial or completed)	1,414
Number of sets	16,524
Number of hooks set	47,786,836

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	5,420	5,388	32	0.11
Striped marlin	8,203	8,071	132	0.17
Shortbill spearfish	7,611	7,403	208	0.16
Swordfish	12,284	11,977	307	0.26
Other billfishes	371	362	9	0.01
Total	33,889	33,201	688	0.71
Shark PMUS				
Blue shark	64,804	0	64,804	1.36
Mako sharks	1,943	21	1,922	0.04
Thresher sharks	6,420	23	6,397	0.13
Oceanic whitetip shark	279	0	279	0.01
Silky shark	152	0	152	0.00
Total	73,598	44	73,554	1.54
Tuna PMUS				
Albacore	12,283	11,625	658	0.26
Bigeye tuna	137,043	134,891	2,152	2.87
Yellowfin tuna	64,535	63,105	1,430	1.35
Bluefin tuna	11	10	1	0.00
Skipjack tuna	9,010	8,889	121	0.19
Other tunas	0	0	0	0.00
Total	222,882	218,520	4,362	4.66
Other PMUS				
Mahimahi	31,478	31,017	461	0.66
Moonfish	4,504	4,499	5	0.09
Wahoo	13,749	13,672	77	0.29
Oilfish	6,903	5,530	1,373	0.14
Pomfret	25,681	25,374	307	0.54
Total	82,315	80,092	2,223	1.72
Total PMUS	412,684	331,857	80,827	8.64
Non-PMUS Sharks	186	1	185	0.00
Total Non-PMUS	4,074	95	3,979	0.09
Total All Species	416,758	331,952	84,806	8.72

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). 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.

Report Coverage

Time Period 1 January-31 December 2022
 Set Types Shallow sets
 Fishing Area All Areas

Number of vessels active	22
Number of trips (partial or completed)	68
Number of sets	856
Number of hooks set	1,075,993

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	49	49	0	0.05
Striped marlin	388	385	3	0.36
Shortbill spearfish	62	62	0	0.06
Swordfish	9,604	9,342	262	8.93
Other billfishes	12	11	1	0.01
Total	10,115	9,849	266	9.40
Shark PMUS				
Blue shark	6,332	0	6,332	5.88
Mako sharks	710	4	706	0.66
Thresher sharks	44	0	44	0.04
Oceanic whitetip shark	26	0	26	0.02
Silky shark	5	0	5	0.00
Total	7,117	4	7,113	6.61
Tuna PMUS				
Albacore	1,395	1,376	19	1.30
Bigeye tuna	954	947	7	0.89
Yellowfin tuna	1,067	1,055	12	0.99
Bluefin tuna	4	4	0	0.00
Skipjack tuna	31	31	0	0.03
Other tunas	0	0	0	0.00
Total	3,451	3,413	38	3.21
Other PMUS				
Mahimahi	1,501	1,498	3	1.39
Moonfish	29	27	2	0.03
Wahoo	35	35	0	0.03
Oilfish	227	131	96	0.21
Pomfret	6	4	2	0.01
Total	1,798	1,695	103	1.67
Total PMUS	22,481	14,961	7,520	20.89
Non-PMUS Sharks	5	0	5	0.00
Total Non-PMUS	18	10	8	0.02
Total All Species	22,499	14,971	7,528	20.91

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). 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.

Report Coverage		Number of vessels active		
Time Period	1 January-31 December 2022	147		
Set Types	Deep sets	Number of trips (partial or completed) 1,531		
Fishing Area	All Areas	Number of sets 21,299		
		Number of hooks set 63,319,077		

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE Number Caught per 1000 Hooks
PMUS				
Billfish PMUS				
Blue marlin	7,109	7,068	41	0.11
Striped marlin	11,133	10,976	157	0.18
Shortbill spearfish	11,031	10,788	243	0.17
Swordfish	3,629	3,556	73	0.06
Other billfishes	453	444	9	0.01
Total	33,355	32,832	523	0.53
Shark PMUS				
Blue shark	78,643	0	78,643	1.24
Mako sharks	1,587	19	1,568	0.03
Thresher sharks	8,215	31	8,184	0.13
Oceanic whitetip shark	384	0	384	0.01
Silky shark	233	0	233	0.00
Total	89,062	50	89,012	1.41
Tuna PMUS				
Albacore	11,538	10,891	647	0.18
Bigeye tuna	171,447	168,884	2,563	2.71
Yellowfin tuna	83,969	82,127	1,842	1.33
Bluefin tuna	11	10	1	0.00
Skipjack tuna	12,586	12,426	160	0.20
Other tunas	0	0	0	0.00
Total	279,551	274,338	5,213	4.41
Other PMUS				
Mahimahi	35,752	35,194	558	0.56
Moonfish	4,955	4,951	4	0.08
Wahoo	17,501	17,406	95	0.28
Oilfish	9,664	7,837	1,827	0.15
Pomfret	31,683	31,278	405	0.50
Total	99,555	96,666	2,889	1.57
Total PMUS	501,523	403,886	97,637	7.92
Non-PMUS Sharks	247	1	246	0.00
Total Non-PMUS	6,528	152	6,376	0.10
Total All Species	508,051	404,038	104,013	8.02

Active Vessels

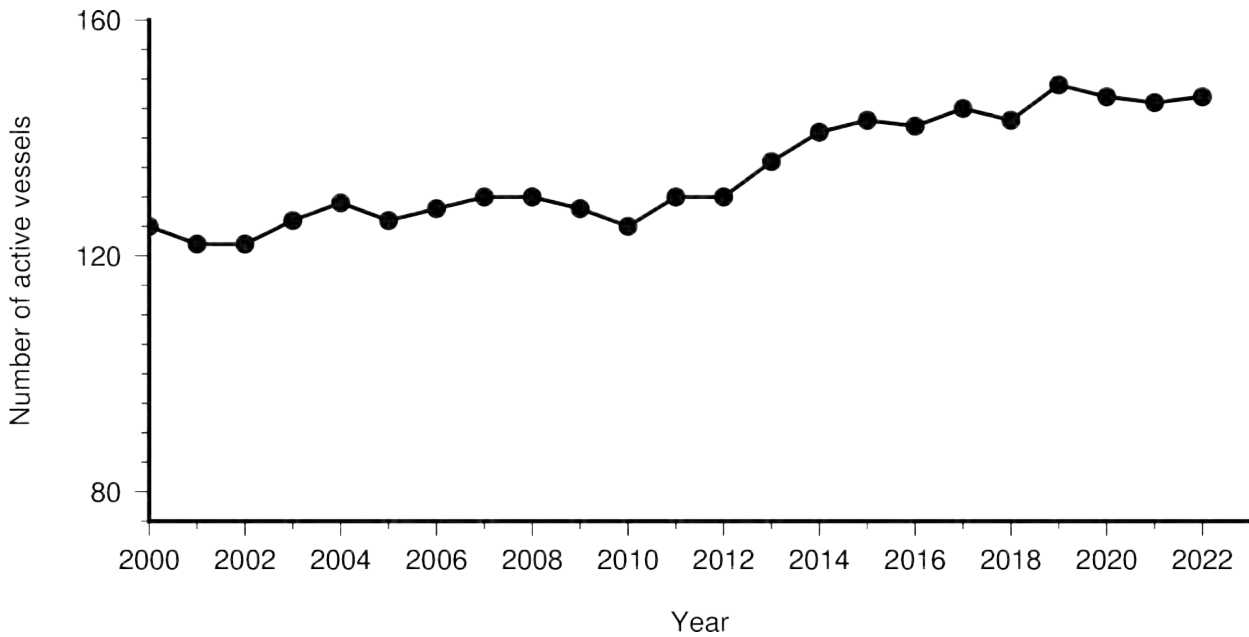


Figure 1: Number of active longline vessels based in Hawaii and California, by year for haul years 2000-2022.

Trips

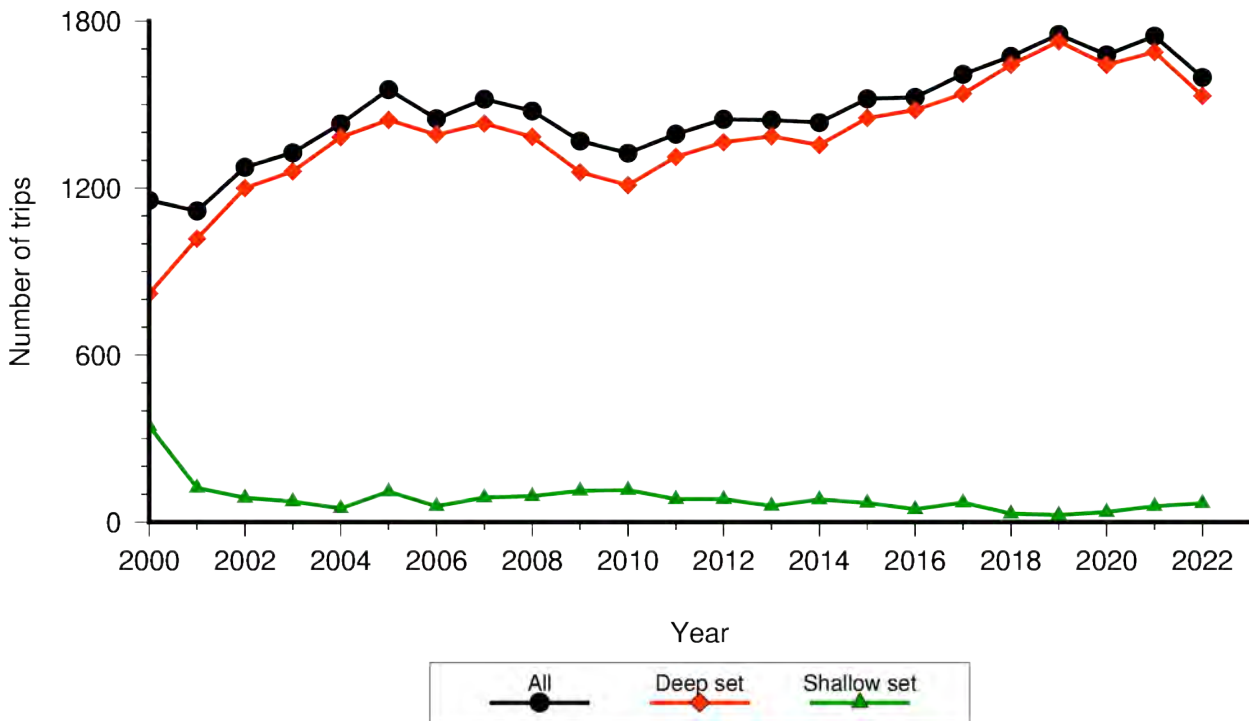


Figure 2: Number of longline trips based in Hawaii and California, by year for haul years 2000-2022.

Sets

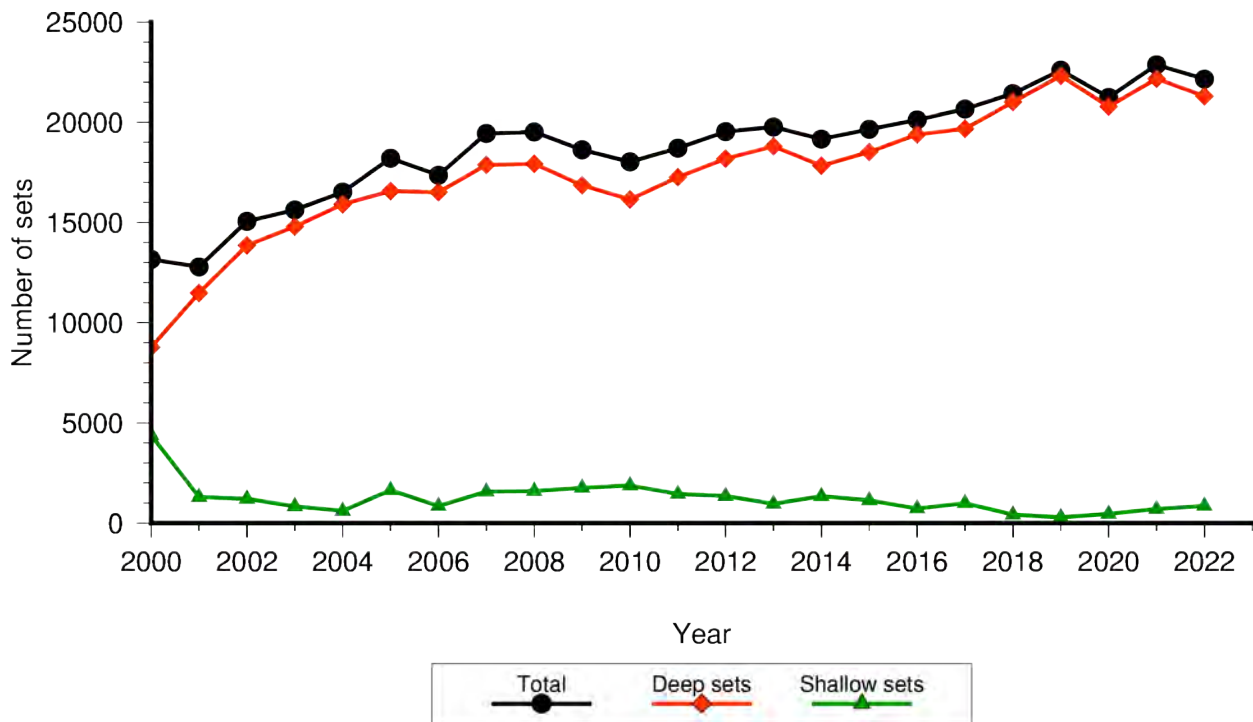


Figure 3: Number of fishing sets by vessels based in Hawaii and California, by year for haul years 2000-2022.

Hooks Set

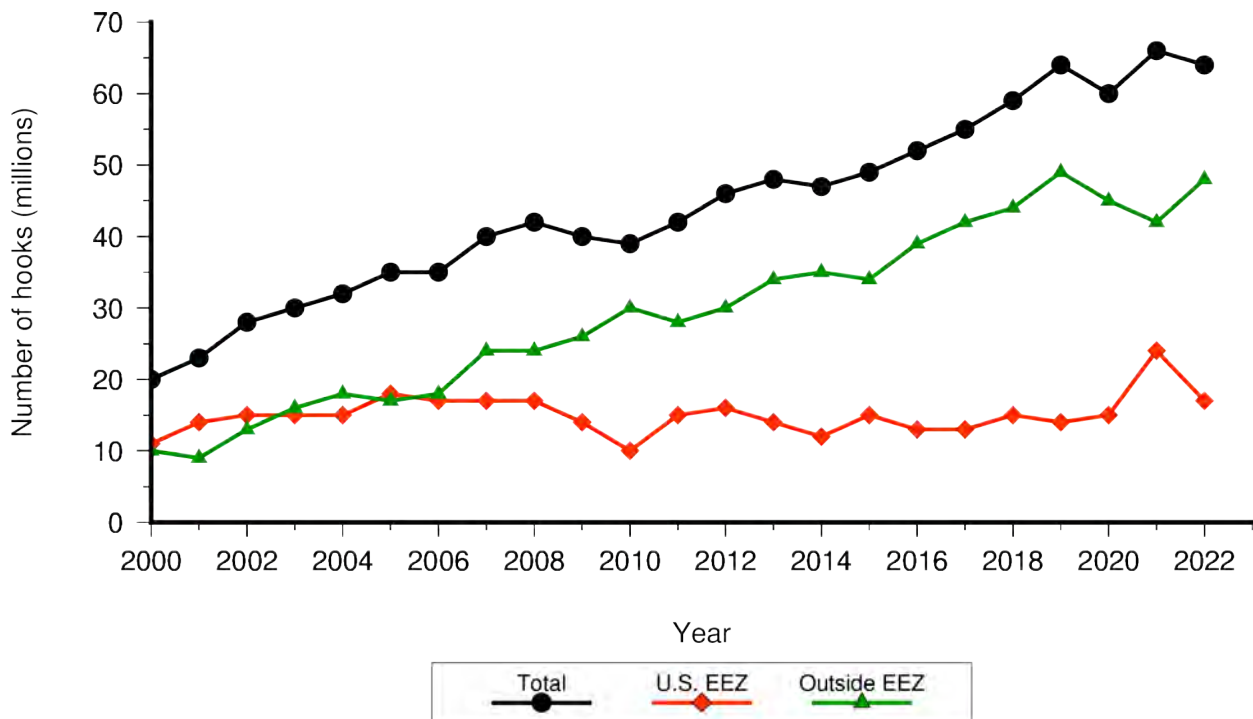


Figure 4: Number of hooks in millions, set by vessels based in Hawaii and California by year, 2000-2022.

Tuna Catch

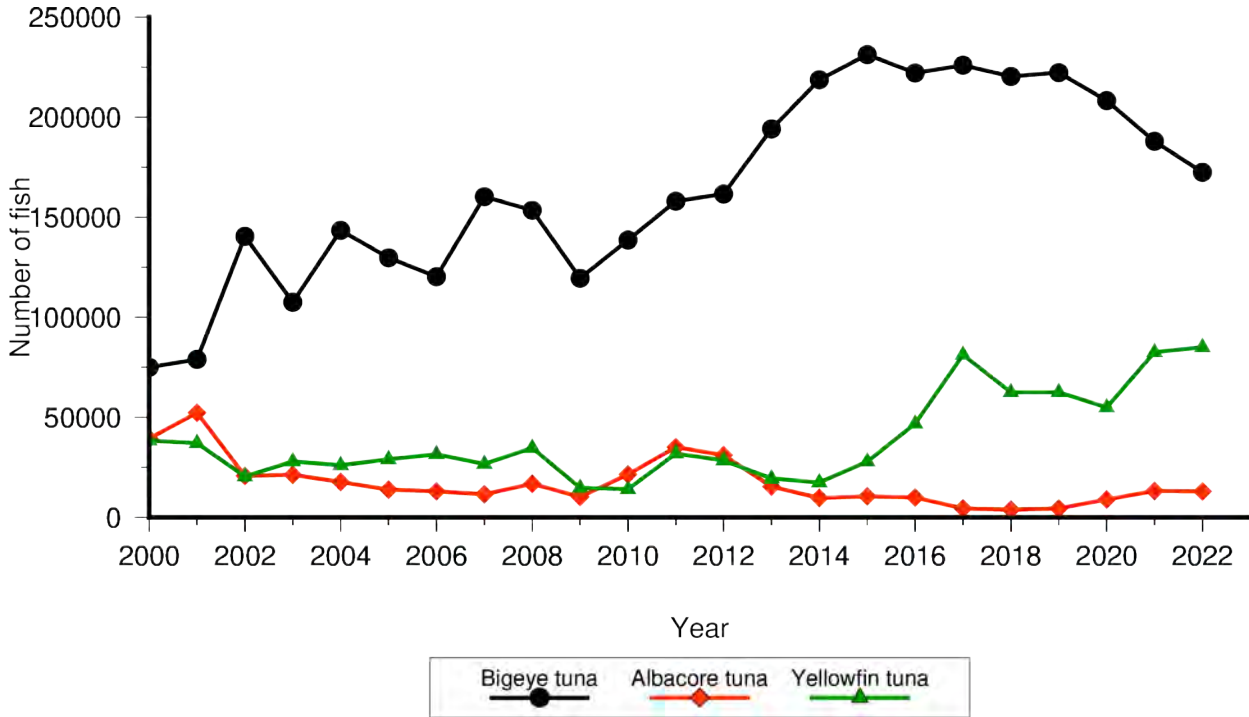


Figure 5: Annual catch (kept + released) of albacore tuna, bigeye tuna, and yellowfin tuna by longline vessels based in Hawaii and California by year, 2000-2022.

Billfish Catch

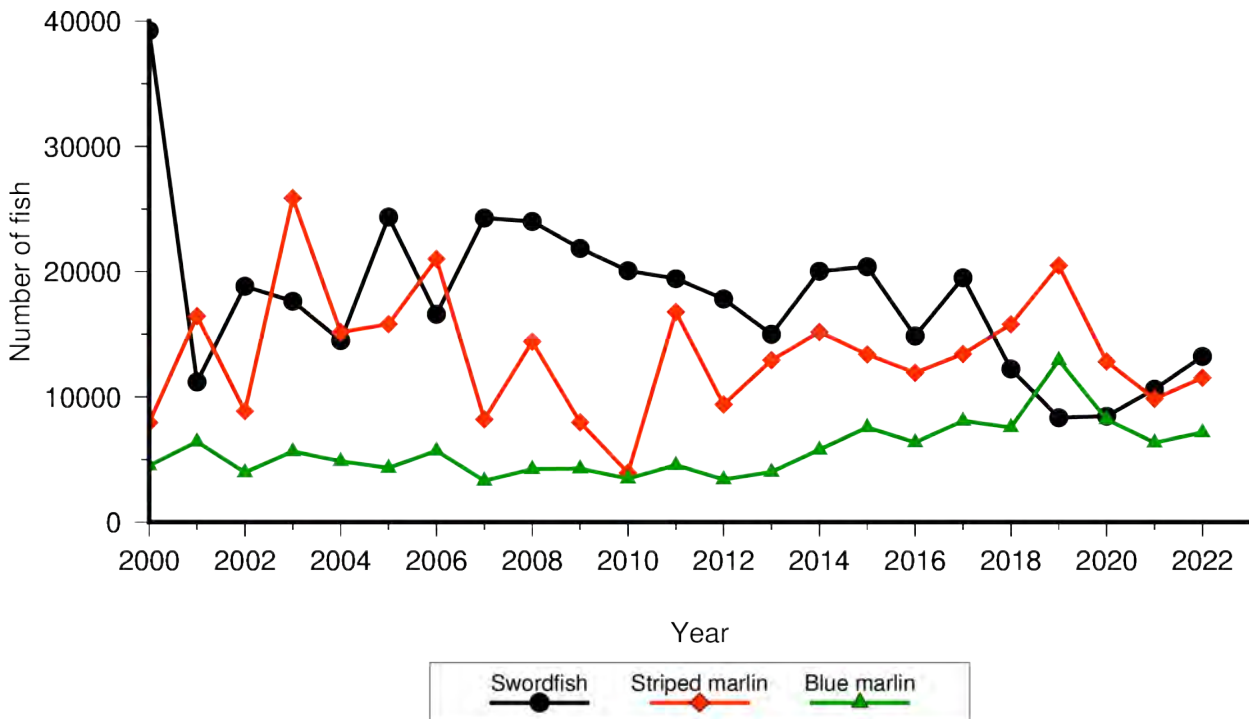


Figure 6: Annual catch (kept + released) of swordfish, striped marlin, and blue marlin by longline vessels based in Hawaii and California by year, 2000-2022.

Shark Catch

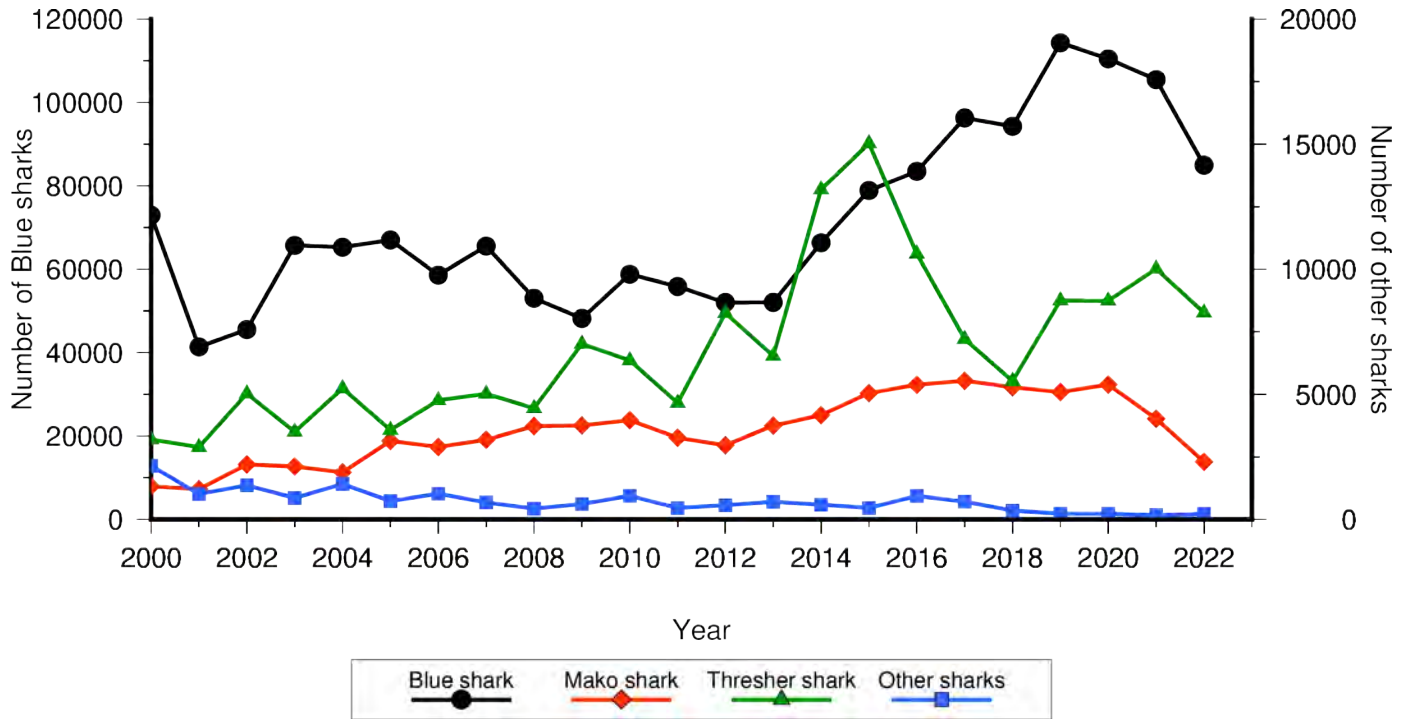


Figure 7: Annual catch (kept + released) of blue shark, mako shark, thresher shark, and other sharks by longline vessels based in Hawaii and California by year, 2000-2022.

Other PMUS Catch

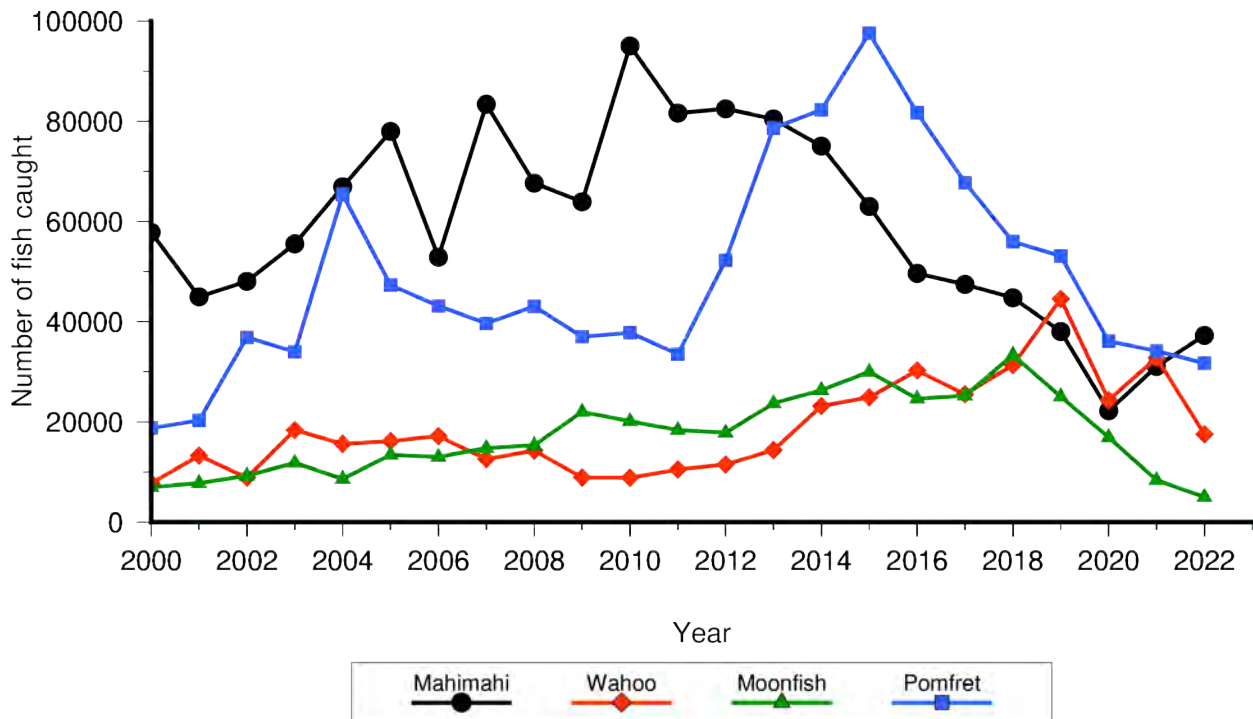


Figure 8: Annual catch (kept + released) of mahimahi, wahoo, moonfish, and pomfret by longline vessels based in Hawaii and California by year 2000-2022.

Sets

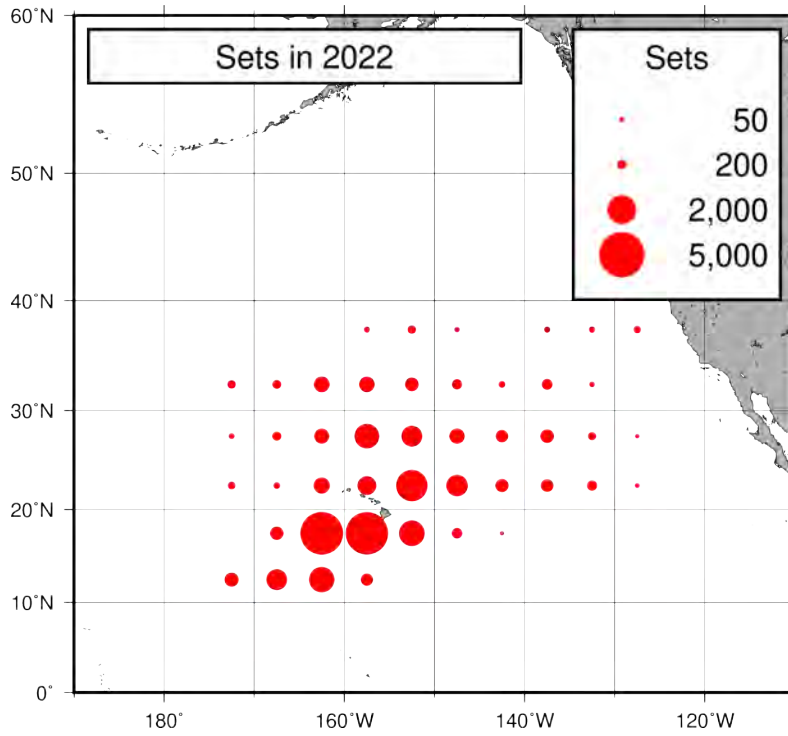


Figure 9: Spatial distribution of the total number of sets by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

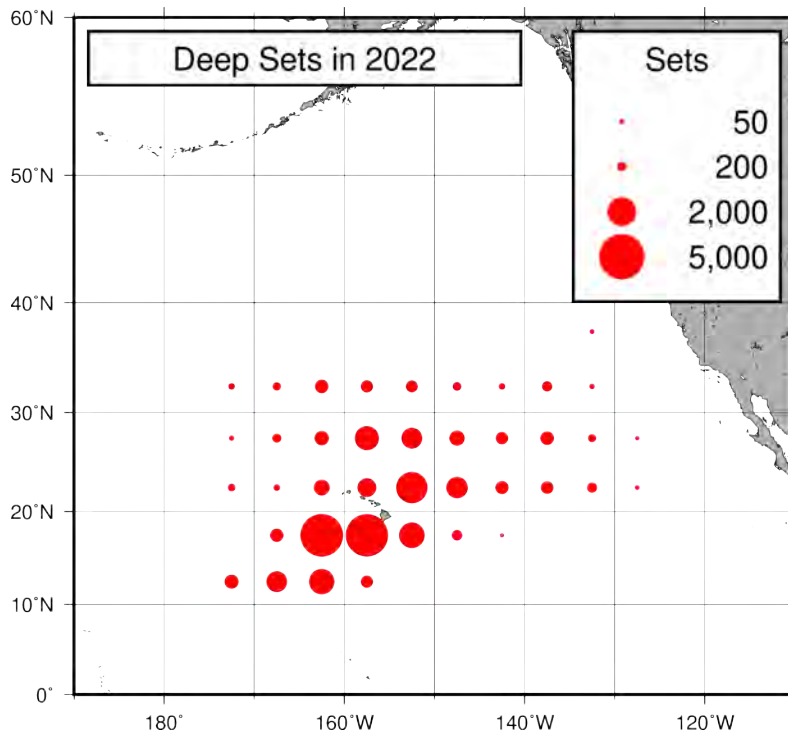


Figure 10: Spatial distribution of the number of deep-set sets by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

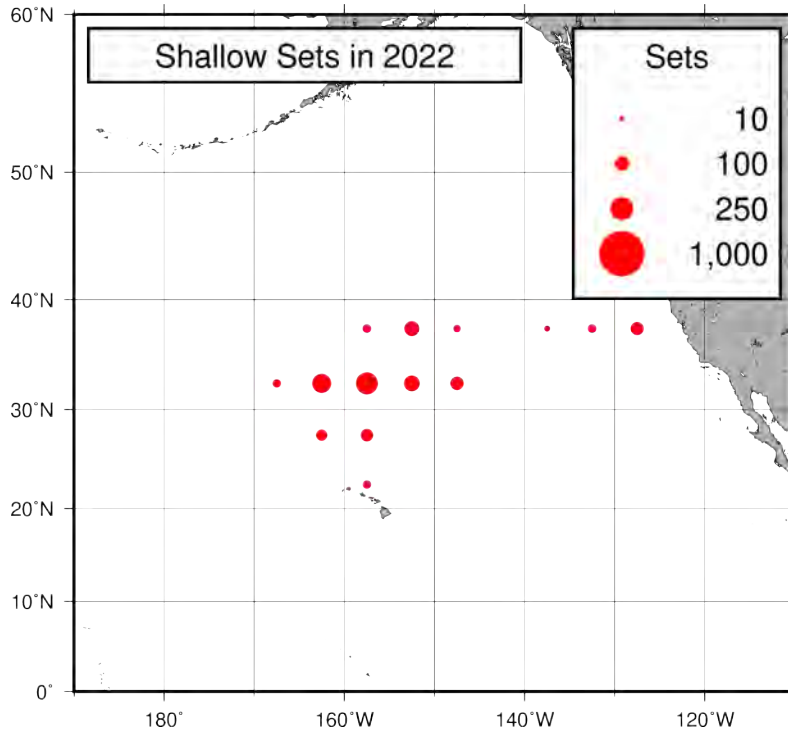


Figure 11: Spatial distribution of the number of shallow-set sets by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

Total Effort

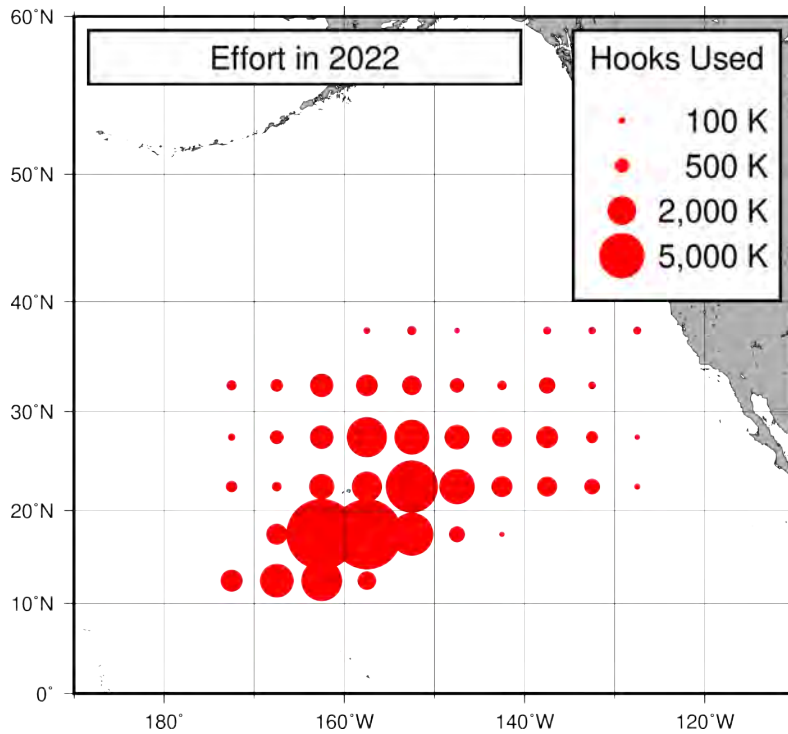


Figure 12: Spatial distribution of the total number of hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

Deep Effort

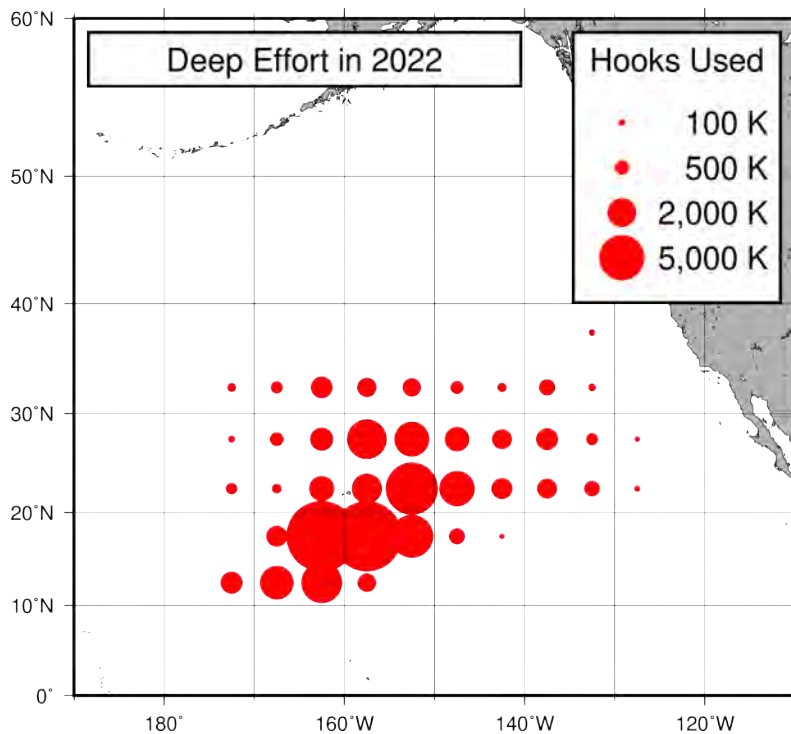


Figure 13: Spatial distribution of the number of deep-set hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

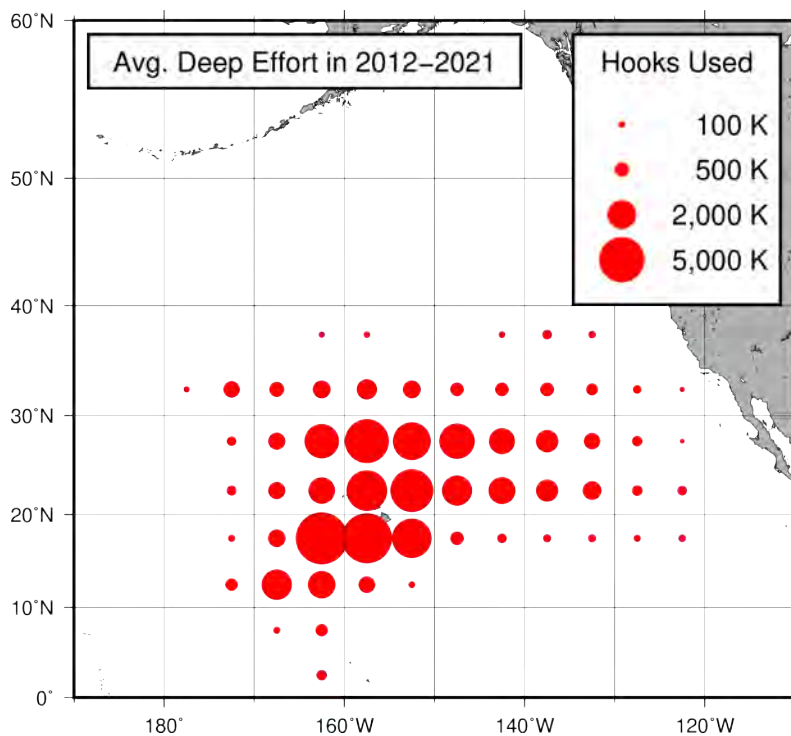


Figure 14: Spatial distribution of the average number of deep-set hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2012-2021 .

Shallow Effort

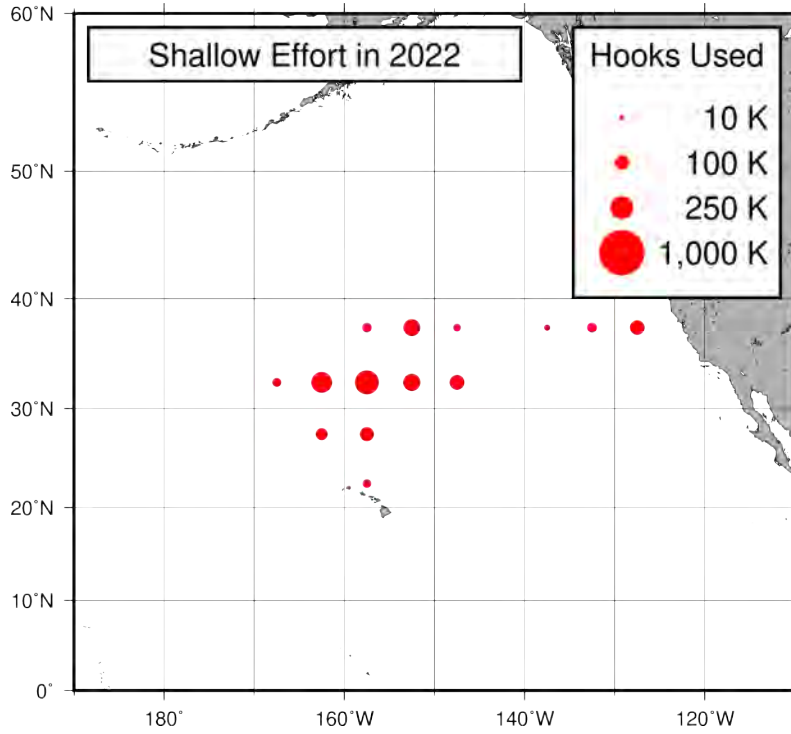


Figure 15: Spatial distribution of the number of shallow-set hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

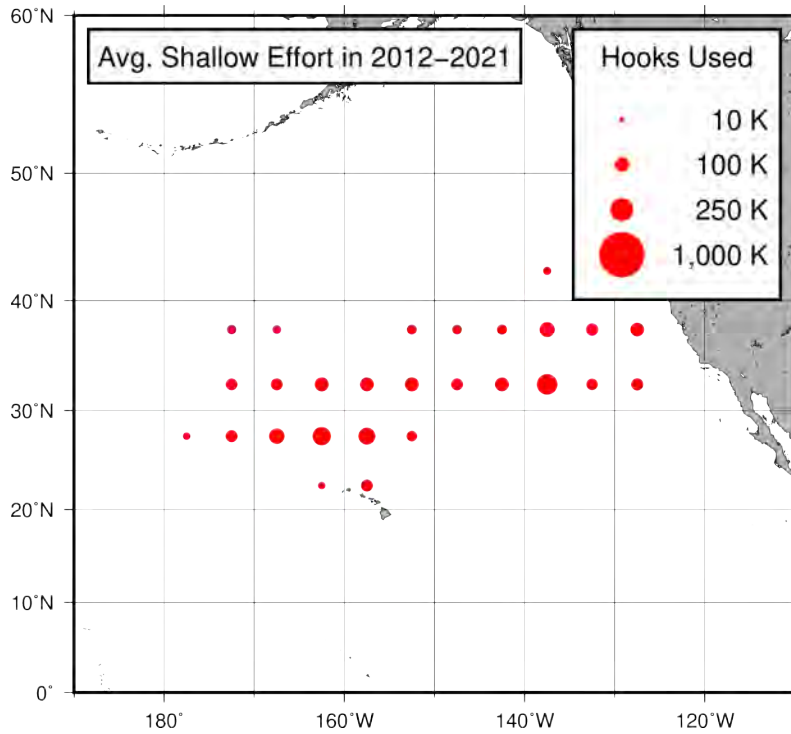


Figure 16: Spatial distribution of the average number of shallow-set hooks set by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2012-2021 .

Bigeye Catch

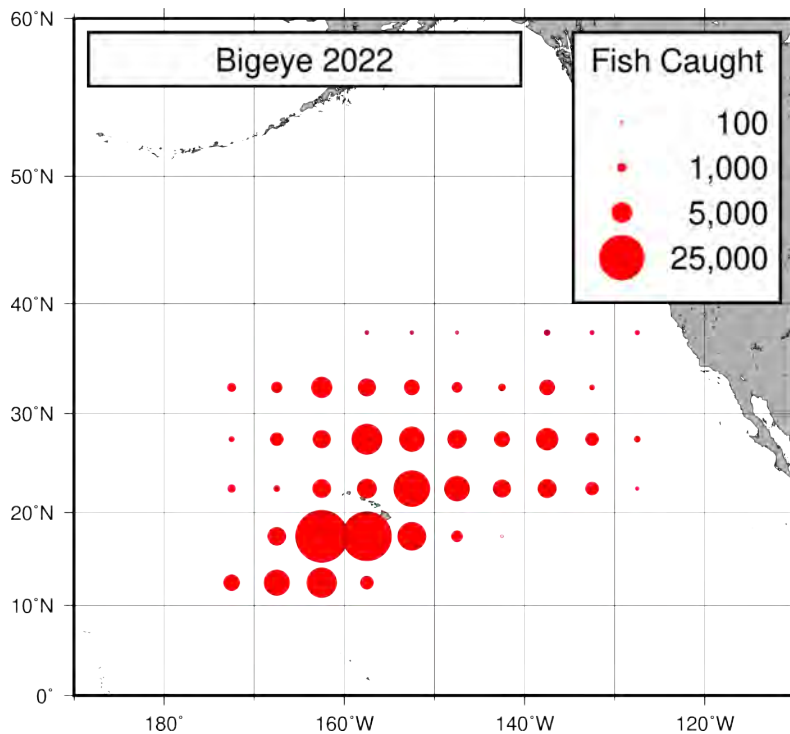


Figure 17: Spatial distribution of the total number of bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

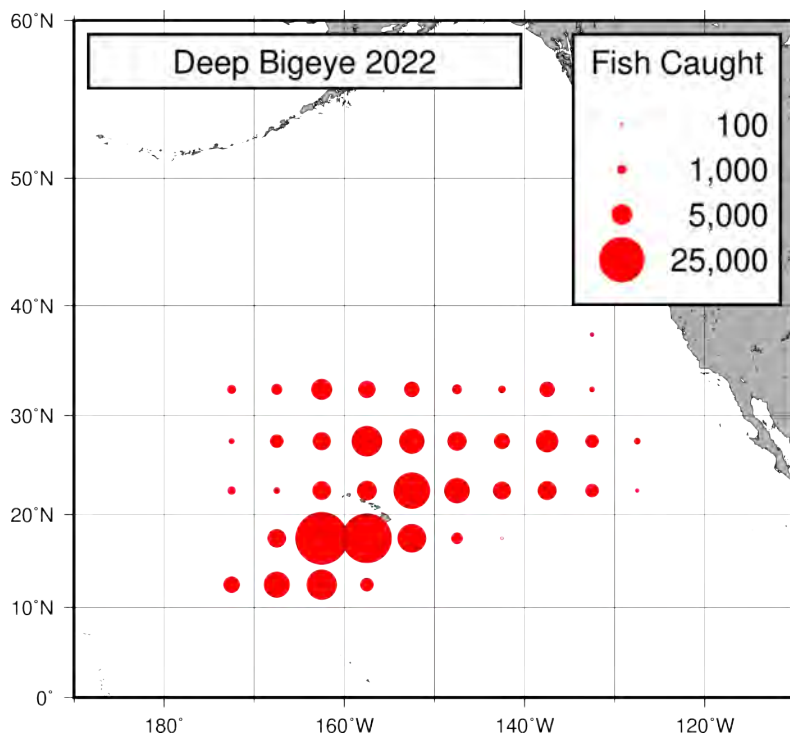


Figure 18: Spatial distribution of the number of deep-set bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

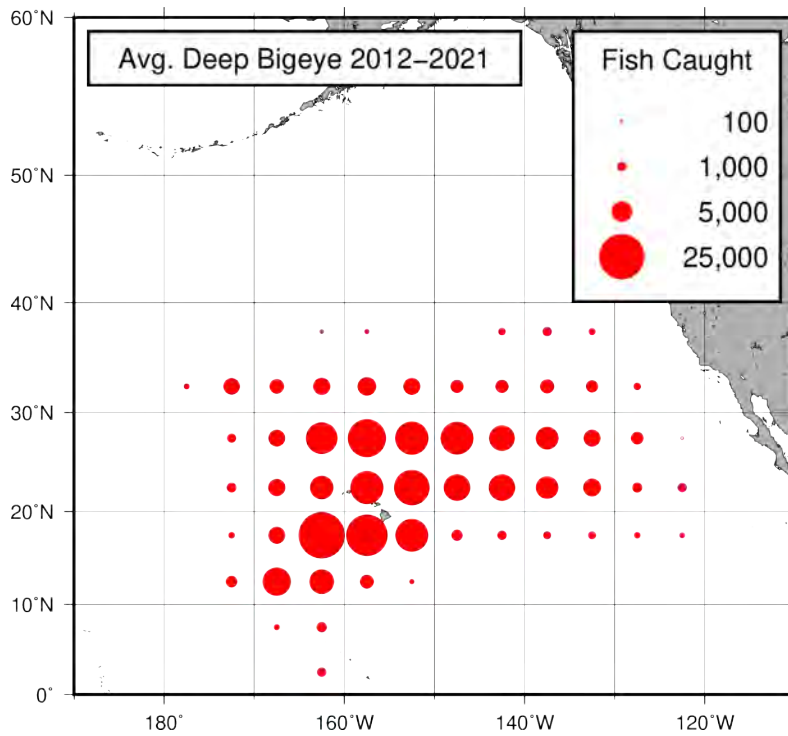


Figure 19: Spatial distribution of the average number of deep-set bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2012-2021.

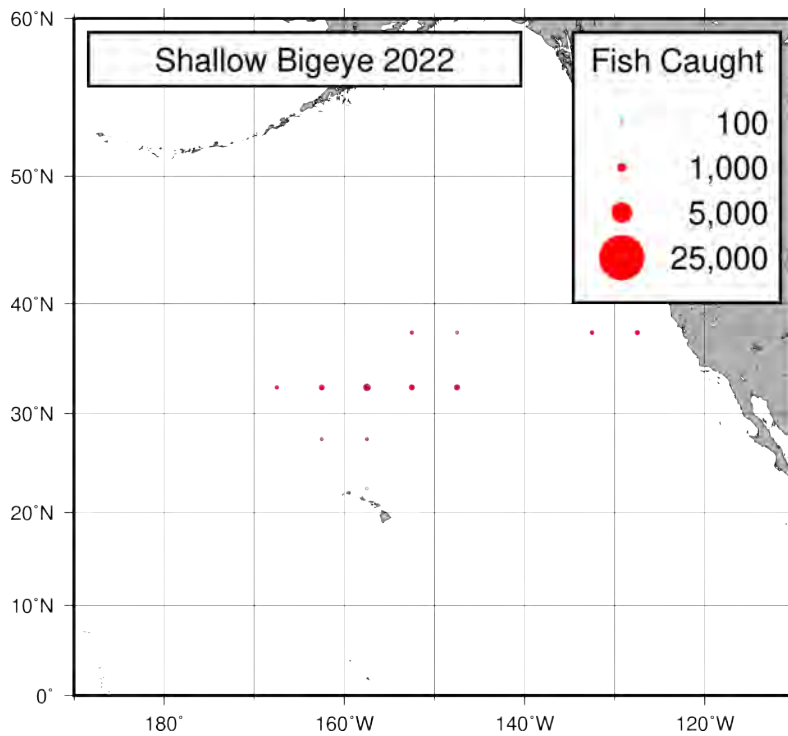


Figure 20: Spatial distribution of the number of shallow-set bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

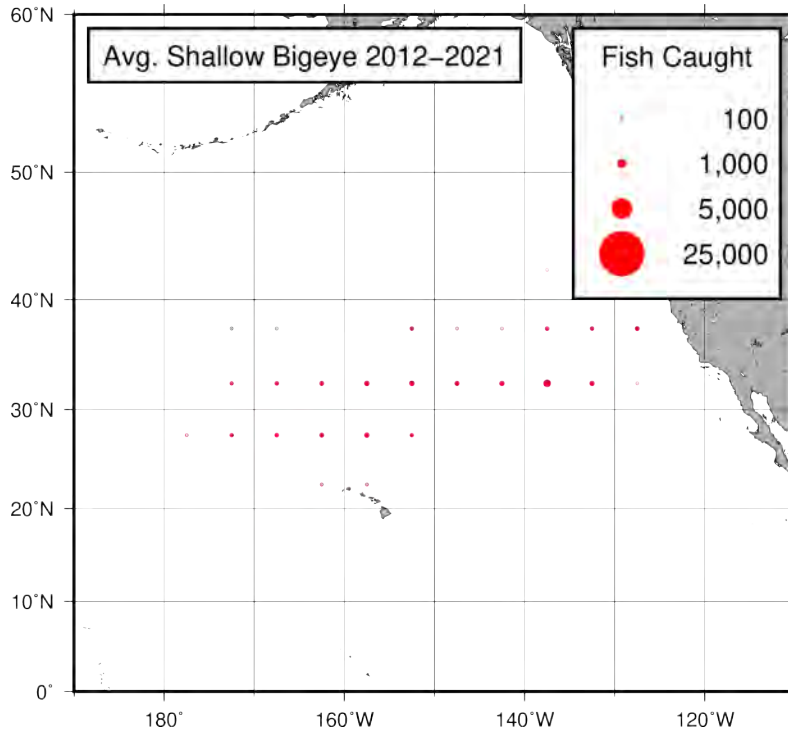


Figure 21: Spatial distribution of the average number of shallow-set bigeye tuna caught by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2012-2021.

Swordfish

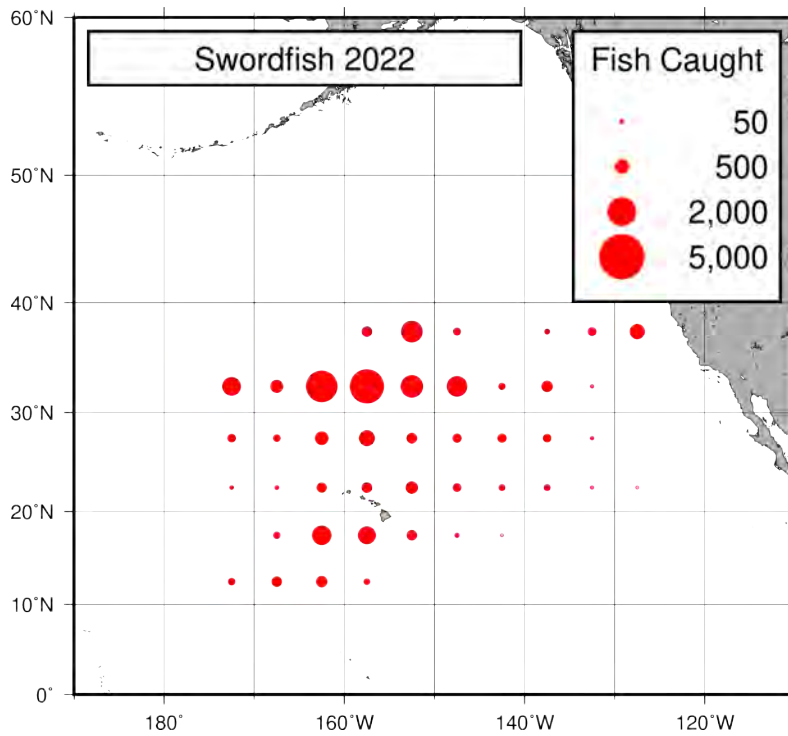


Figure 22: Spatial distribution of the total number of swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

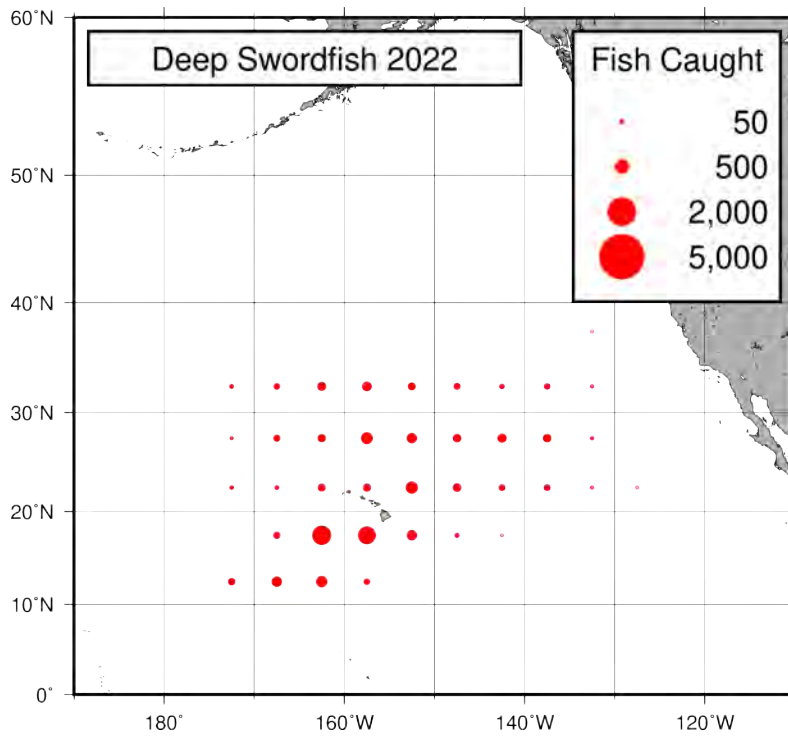


Figure 23: Spatial distribution of the number of deep-set swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

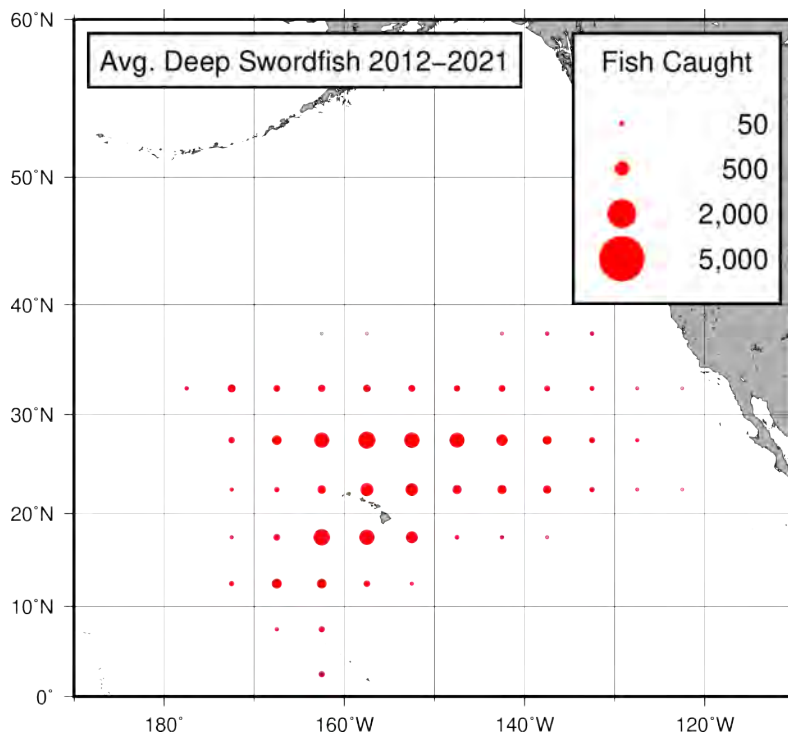


Figure 24: Spatial distribution of the average number of deep-set swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2012-2021.

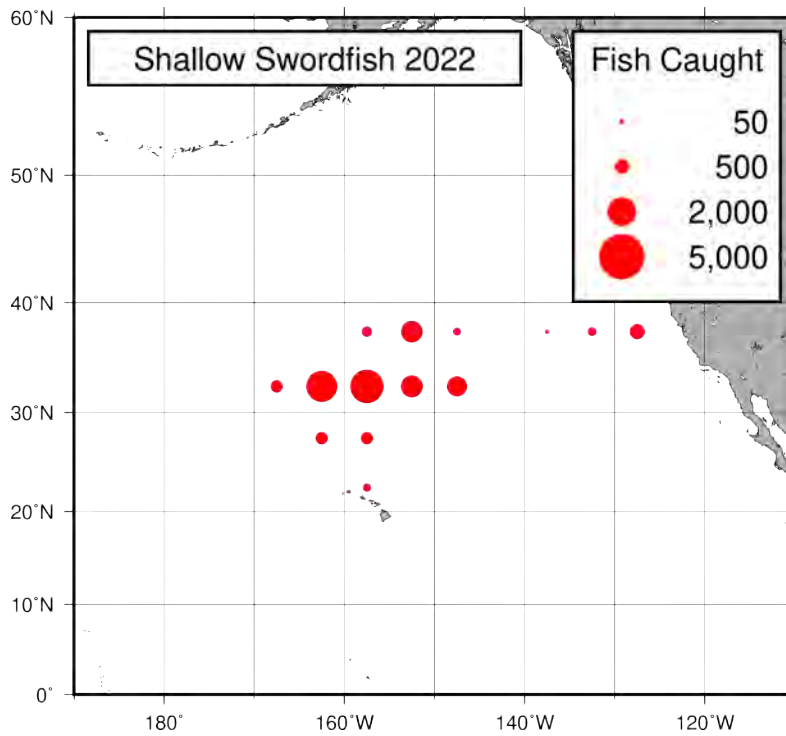


Figure 25: Spatial distribution of the number of shallow-set swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2022 (provisional data).

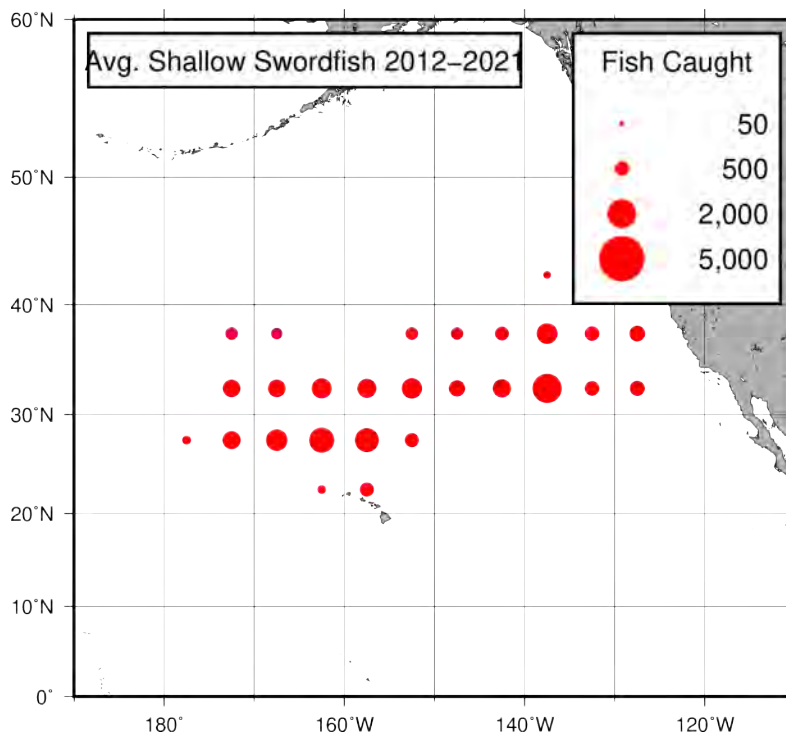


Figure 26: Spatial distribution of the average number of shallow-set swordfish caught, by longline vessels based in Hawaii and California fishing within the North Pacific Ocean, 2012-2021.