

Protected species interactions in Pacific Islands Region longline and purse seine fisheries inside Pacific Island Remote Area Exclusive Economic Zones

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National Marine Fisheries Service, NOAA
Department of Commerce
November 15, 2023

Purpose

This data report contains an annual summary of Pacific Islands Region (PIR) longline and purse seine fisheries effort and protected species interactions inside Pacific Remote Island Area (PRIA) Exclusive Economic Zones (EEZ)s.

Data Sources

Pacific Islands Regional Observer Program Observer Reports (1997-2021)—Approved data queried August 29, 2023.

Hawaii Longline Logbook (1997-2021)—Frozen data version March 15, 2023.

California Longline Logbook (1997-2021)—Frozen data version March 15, 2023.

American Samoa Longline Logbook (1997-2021)—Frozen data version March 15, 2023.

U.S. Western Pacific Purse Seine Logbook (2010-2020)—Data version November 2020.

SPC Observer Reports for U.S. Western Pacific Purse Seine vessels (2010-2020)—Data version October 2020.

Data Summary

The data in Tables [1](#) and [2](#) include the number of observed interactions in the PIR longline and purse seine fisheries, respectively. The number of observed interactions are based on observer reports from the Pacific Islands Regional Observer Program and the Pacific Community (SPC) Oceanic Fisheries Program. Observer coverage rates for the longline fishery are provided in [Table 1](#). The interactions indicated are observed interactions, not expanded estimates. For U.S. purse seine vessels, coverage rates were 100% in all years but 2020 (due to the impacts of COVID-19).

Logbook data or total hooks set for [Table 1](#) were taken from the PIFSC data report DR-23-17, which is referenced below. Longline observer data for [Table 1](#) were pulled using the following conditions

1. All fleets—California, Hawai‘i, American Samoa;
2. Catch location for protected species including seabirds, sea turtles, and marine

PIFSC Data Report DR-23-21

Issued 2023 November 15

<https://doi.org/10.25923/8qzk-6q11>

mammals were queried by the location and time of the start of the interaction or when the animal was sighted by the observer;

3. Catch location for Elasmobranch species and observed effort was queried by begin haul location and date.

Purse seine observer data for [Table 2](#) were pulled using the following conditions

1. Catch location for protected species including seabirds, sea turtles, sharks, and marine mammals were queried by the location and time of the observer recorded set location;
2. In some instances, vessels were entered into the database as U.S. vessels but these were vessels that had reflagged at the time of the observer record. In these instances the vessel was excluded;
3. Confidential data (c.d.) determination was made based on a unique vessel identifier (international radio call sign (ircs) or WCPFC identification number).

References

- Fisheries Research and Monitoring Division Pacific Islands Fisheries Science Center 2023. Economic value of longline catch in the PRIA Pacific Islands Fisheries Science Center, PIFSC Data Report, DR-23-17, 2p. <https://doi.org/10.25923/qjcc-mn28>.
- Pacific Islands Fisheries Science Center. 2023. U.S. Western Pacific Purse Seine Fishery, <https://www.fisheries.noaa.gov/inport/item/70637>.
- Pacific Islands Regional Office. 2023. Longline Observer Data System, <https://www.fisheries.noaa.gov/inport/item/9027>

Table 1. Annual summary of Pacific Islands Region (PIR) longline fisheries catch and effort inside the Pacific Remote Island Area (PRIA) Economic Zones (EEZ)s.

Haul Year	Exclusive Economic Zone Area	Number Observed Caught	Number of Hooks Observed	Total Number of Hooks Set	Percent of Hooks Observed
1997	Johnston Atoll	c.d.	c.d.	289,230	c.d.
1997	Kingman Reef & Palmyra Atoll	c.d.	c.d.	141,890	c.d.
1998	Johnston Atoll	c.d.	c.d.	298,500	c.d.
1998	Kingman Reef & Palmyra Atoll	-	88,204	1,617,471	5.5%
	Oceanic whitetip shark	116	-	-	-
	Leatherback sea turtle	1	-	-	-
	Olive ridley sea turtle	1	-	-	-
1999	Johnston Atoll	-	0	211,240	0%
1999	Kingman Reef & Palmyra Atoll	-	45,738	859,173	5.3%
	Manta/mobula	1	-	-	-
	Oceanic whitetip shark	92	-	-	-
	Scalloped hammerhead	2	-	-	-
	Green/black sea turtle	1	-	-	-
2000	Jarvis Island	c.d.	c.d.	c.d.	c.d.
2000	Johnston Atoll	-	348,824	1,209,119	28.8%
	Oceanic whitetip shark	77	-	-	-
2000	Kingman Reef & Palmyra Atoll	-	162,175	1,786,725	9.1%
	Manta/mobula	1	-	-	-
	Oceanic whitetip shark	131	-	-	-
	Scalloped hammerhead	2	-	-	-
	Green/black sea turtle	1	-	-	-
	Olive ridley sea turtle	1	-	-	-
2001	Jarvis Island	-	c.d.	c.d.	c.d.
2001	Johnston Atoll	-	284,305	1,033,179	27.5%
	Black-footed albatross	2	-	-	-
	Laysan albatross	2	-	-	-
	Oceanic whitetip shark	71	-	-	-
	Unidentified hammerhead	1	-	-	-
	False killer whale	1	-	-	-
2001	Kingman Reef & Palmyra Atoll	-	469,365	1,771,968	26.5%
	Spotted dolphin	1	-	-	-
	Manta/mobula	6	-	-	-
	Oceanic whitetip shark	288	-	-	-
	Unidentified hammerhead	1	-	-	-

Haul Year	Exclusive Economic Zone Area	Number Observed Caught	Number of Hooks Observed	Total Number of Hooks Set	Percent of Hooks Observed
	False killer whale	1	-	-	-
	Short-finned pilot whale	1	-	-	-
2002	Jarvis Island	-	111,474	324,465	34.4%
	Oceanic whitetip shark	52	-	-	-
	Scalloped hammerhead shark	18	-	-	-
	Unidentified hammerhead	6	-	-	-
2002	Johnston Atoll	-	350,352	1,122,573	31.2%
	Oceanic whitetip shark	42			
	Olive ridley sea turtle	1			
2002	Kingman Reef & Palmyra Atoll	-	760,374	2,063,006	36.9%
	Manta/mobula	10	-	-	-
	Oceanic whitetip shark	393	-	-	-
	Scalloped hammerhead shark	2	-	-	-
	Unidentified hammerhead	4	-	-	-
	False killer whale	2	-	-	-
	Unidentified porpoise	2	-	-	-
2003	Jarvis Island	c.d.	c.d.	300,122	c.d.
2003	Johnston Atoll	-	178,832	524,746	34.1%
	Black-footed albatross	1	-	-	-
	Laysan albatross	1	-	-	-
	Oceanic whitetip shark	33	-	-	-
	Scalloped hammerhead shark	1	-	-	-
	Olive ridley sea turtle	1	-	-	-
2003	Kingman Reef & Palmyra Atoll	c.d.	c.d.	268,232	c.d.
2004	Jarvis Island	c.d.	c.d.	79,629	c.d.
2004	Johnston Atoll		328,308	922,090	35.6%
	Oceanic whitetip shark	73			
	Short-finned pilot whale	1			
2004	Kingman Reef & Palmyra Atoll		259,427	950,509	27.3%
	Manta/mobula	1			
	Oceanic whitetip shark	112			
	Scalloped hammerhead shark	2			
	Leatherback sea turtle	1			
	Olive ridley sea turtle	4			
2005	Jarvis Island	c.d.	c.d.	c.d.	c.d.
2005	Johnston Atoll	-	39,256	288,981	13.6%

Haul Year	Exclusive Economic Zone Area	Number Observed Caught	Number of Hooks Observed	Total Number of Hooks Set	Percent of Hooks Observed
	Oceanic whitetip shark	6	-	-	-
2005	Kingman Reef & Palmyra Atoll	c.d.	c.d.	200,450	c.d.
2006	Jarvis Island	c.d.	c.d.	28,323	c.d.
2006	Johnston Atoll		192,339	772,687	24.9%
	Oceanic whitetip shark	8			
2006	Kingman Reef & Palmyra Atoll	-	201,032	944,308	21.3%
	Oceanic whitetip shark	47	-	-	-
	Green/black sea turtle	2	-	-	-
	Leatherback sea turtle	1	-	-	-
	Olive ridley sea turtle	3	-	-	-
2007	Jarvis Island	-	0	19,200	0%
2007	Johnston Atoll	-	147,568	682,237	21.6%
	Oceanic whitetip shark	7	-	-	-
2007	Kingman Reef & Palmyra Atoll	-	360,972	1,669,348	21.6%
	Manta/mobula	5	-	-	-
	Oceanic whitetip shark	49	-	-	-
	Leatherback sea turtle	1	-	-	-
	Olive ridley sea turtle	2	-	-	-
	False killer whale	1	-	-	-
2008	Jarvis Island	c.d.	c.d.	c.d.	c.d.
2008	Johnston Atoll	-	181,318	782,455	23.2%
	Oceanic whitetip shark	13	-	-	-
2008	Kingman Reef & Palmyra Atoll	c.d.	c.d.	516,603	c.d.
2009	Johnston Atoll	-	174,990	688,603	25.4%
	Oceanic whitetip shark	5	-	-	-
	Olive ridley sea turtle	1	-	-	-
2009	Kingman Reef & Palmyra Atoll	-	82,531	452,667	18.2%
	Giant manta ray	3	-	-	-
	Manta/mobula	1	-	-	-
	Oceanic whitetip shark	22	-	-	-
	Leatherback sea turtle	1	-	-	-
	Olive ridley sea turtle	1	-	-	-
2010	Johnston Atoll	-	119,325	434,342	27.5%
	Giant manta ray	1	-	-	-
	Oceanic whitetip shark	4	-	-	-
	Leatherback sea turtle	1	-	-	-

Haul Year	Exclusive Economic Zone Area	Number Observed Caught	Number of Hooks Observed	Total Number of Hooks Set	Percent of Hooks Observed
2010	Kingman Reef & Palmyra Atoll	-	146,102	988,178	14.8%
	Giant manta ray	12	-	-	-
	Oceanic whitetip shark	62	-	-	-
	Green/black sea turtle	1	-	-	-
2011	Johnston Atoll	-	171,842	536,529	32.0%
	Manta/mobula	1	-	-	-
	Oceanic whitetip shark	9	-	-	-
2011	Kingman Reef & Palmyra Atoll	-	54,951	316,820	17.3%
	Oceanic whitetip shark	29	-	-	-
2012	Jarvis Island	c.d.	c.d.	7,410	c.d.
2012	Johnston Atoll	-	186,856	1,081,454	17.3%
	Black-footed albatross	1	-	-	-
	Oceanic whitetip shark	9	-	-	-
2012	Kingman Reef & Palmyra Atoll	-	135,286	788,370	17.2%
	Manta/mobula	1	-	-	-
	Oceanic whitetip shark	29	-	-	-
2013	Jarvis Island	-	0	26,426	0%
2013	Johnston Atoll	-	226,266	827,291	27.4%
	Black-footed albatross	1	-	-	-
	Oceanic whitetip shark	8	-	-	-
	Olive ridley sea turtle	1	-	-	-
2013	Kingman Reef & Palmyra Atoll	-	103,459	344,109	30.1%
	Oceanic whitetip shark	57	-	-	-
	Leatherback sea turtle	1	-	-	-
2014	Jarvis Island	c.d.	c.d.	c.d.	c.d.
2014	Johnston Atoll	-	120,454	436,514	27.6%
	Laysan albatross	1	-	-	-
	Oceanic whitetip shark	2	-	-	-
2014	Kingman Reef & Palmyra Atoll	-	67,189	379,619	17.7%
	Giant manta ray	2	-	-	-
	Oceanic whitetip shark	21	-	-	-
	Leatherback sea turtle	1	-	-	-
	Olive ridley sea turtle	1	-	-	-
2015	Johnston Atoll	c.d.	c.d.	c.d.	c.d.
2015	Kingman Reef & Palmyra Atoll	c.d.	c.d.	317,527	c.d.

Haul Year	Exclusive Economic Zone Area	Number Observed Caught	Number of Hooks Observed	Total Number of Hooks Set	Percent of Hooks Observed
2016	Kingman Reef & Palmyra Atoll	-	0	113,410	0%
2017	Kingman Reef & Palmyra Atoll	c.d.	c.d.	c.d.	c.d.
2018	Kingman Reef & Palmyra Atoll	c.d.	c.d.	c.d.	c.d.
2019	Kingman Reef & Palmyra Atoll	c.d.	c.d.	c.d.	c.d.
2021	Kingman Reef & Palmyra Atoll	c.d.	c.d.	c.d.	c.d.

Note: In above table, c.d. denotes data not disclosed due to confidentiality.

Table 2. Annual summary (2010-2020) of Pacific Islands Region (PIR) purse seine fisheries protected species catch and effort inside the Pacific Remote Island Area (PRIA) Economic Zones (EEZ)s. Note observer coverage is 100% except in 2020.

Set Year	Exclusive Economic Zone Area Observed Species	Total Sets	Number Observed Sets	Number Observed Caught	Caught Per Set
Howland & Baker Islands					
2010	-	8	5	-	-
2011	-	7	7	-	-
2012	-	36	32	-	-
	Oceanic whitetip shark	-	-	2	0.0625
	Giant manta ray	-	-	1	0.0313
2013	-	39	33	-	-
	Oceanic whitetip shark	-	-	4	-
2014	-	145	89	-	-
	Oceanic whitetip shark	-	-	4	0.045
	Leatherback sea turtle	-	-	1	0.011
	False killer whale	-	-	5	0.056
2015	c.d.	-	-	-	-
2016	-	89	49	-	-
	Spinner dolphin	-	-	6	0.122
2017	-	103	64	-	-
	Oceanic whitetip shark	-	-	2	0.031
2018	-	89	49	-	-
	Oceanic whitetip shark	-	-	2	0.041
	Giant manta ray	-	-	4	0.082
2019	-	26	21	-	-
	Oceanic whitetip shark	-	-	2	0.095
2020	-	50	2	-	-
Jarvis Island					
2011	c.d.	-	-	-	-
2012	-	66	43	-	-
2013	-	28	17	-	-
	Bryde's whale	-	-	1	0.059
	False killer whale	-	-	1	0.059
	Giant manta ray	-	-	2	0.118
2014	c.d.	-	-	-	-
2015	c.d.	-	-	-	-

Set Year	Exclusive Economic Zone Area Observed Species	Total Sets	Number Observed Sets	Number Observed Caught	Caught Per Set
2016	c.d.	-	-	-	-
2018	c.d.	-	-	-	-
2019	c.d.	-	-	-	-
Kingman Reef & Palmyra Atoll					
2010	c.d.	-	-	-	-
2012	c.d.	-	-	-	-
2013	-	14	10	-	-
2014	c.d.	-	-	-	-
2016	c.d.	-	-	-	-
2017	c.d.	-	-	-	-
2018	c.d.	-	-	-	-
2019	-	19	14	-	-
	Oceanic whitetip shark	-	-	8	0.571
	Green/black sea turtle	-	-	1	0.071
2020	-	32	-	-	-

Note: In above table, c.d. denotes data not disclosed due to confidentiality.