

Hawai'i Longline Fishery 2025 Seabird and Sea Turtle Bycatch by Fishing Grounds, Convention Areas, and Latitude Bands

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Data Summary

The tables in this report include information on sea turtle and seabird bycatch requested by the (1) Pacific Islands Regional Office (PIRO) for their annual review of seabird interactions, (2) West Coast Regional Office (WCRO) for use in preparing their annual data submission to the Inter-American Tropical Tuna Commission (IATTC), and (3) Pacific Islands Fisheries Science Center (PIFSC) for use in preparing their annual data submission to the Western and Central Pacific Fisheries Commission (WCPFC).

Tables 1–4 provide the bycatch estimates and observed counts for seabirds and sea turtles requested by the PIRO and WCRO. Table 5 provides observed and estimated seabird bycatch by latitude band and WCPFC area. Tables 6 and 7 provide the requested information about fishing effort. The estimates and measures of effort are for all longline trips completed in 2025. When computing effort within the IATTC Convention Area and the WCPFC Convention Area for Tables 6 and 7, a fishing operation (set) was considered within the region if at least one of the recorded locations (begin set, end set, begin haul, or end haul) was within the region. The total number of trips within the convention areas is the number of trips that had at least one fishing operation (set) in the region. The number of hooks hauled on a fishing operation assigned to the convention areas was the number of hooks multiplied by the proportion of recorded locations within the area. For example, if only the end set was located within the area and the begin set, begin haul, and end haul were located outside the area, the number of hooks hauled was multiplied by 1/4 to estimate the number of hooks assigned to the area. The total number of hooks within the convention areas is the sum of hooks assigned to the corresponding area. The methods used to sample the deep-set fishery and estimators of bycatch are described in McCracken (2019).

Observer coverage of the deep-set fleet declined from 13% in 2024 to 7% in 2025, reflecting the ongoing reduction of the human observer program (NOAA Fisheries, 2024). EM data were not incorporated into the 2025 estimates presented here; all point estimates and standard errors are derived solely from observer-collected data under this reduced coverage rate. As a result, a larger share of estimated bycatch for 2025 is attributable to statistical expansion rather than direct observation, and standard errors generally increased relative to 2024, consistent with the reduced sampling rate. Future data reports are expected to incorporate EM-derived observations as that program comes online, which should improve coverage and reduce estimator uncertainty.

Table 1. Estimates of the number of incidental interactions of sea turtles for the Hawai'i deep-set longline fishery in 2025. Estimates are provided for all species with an observed interaction in 2025 and species of concern because of their endangered status and history of previous interactions. Estimates are given for the entire fishing grounds, for waters within the IATTC Convention Area, and for waters within the WCPFC Convention Area.

Species of Sea Turtle	Year	Observed Takes	Point Estimates	Standard Error
Total Fishing Grounds				
Loggerhead	2025	0	0	13.67
Leatherback	2025	2	26	18.56
Olive Ridley	2025	7	97	35.61
Green	2025	0	0	13.67
Unidentified Hardshell	2025	0	0	13.67
Within IATTC Convention Area				
Loggerhead	2025	0	0	3.77
Leatherback	2025	0	0	17.94
Olive Ridley	2025	0	0	17.94
Green	2025	0	0	3.77
Unidentified Hardshell	2025	0	0	3.77
Within WCPFC Convention Area				
Loggerhead	2025	0	0	12.37
Leatherback	2025	2	26	18.56
Olive Ridley	2025	7	97	35.61
Green	2025	0	0	12.37
Unidentified Hardshell	2025	0	0	12.37

Table 2. Estimates of the number of incidental interactions of seabirds for the Hawai'i deep-set longline fishery in 2025. Estimates are provided for selected seabird species and species categories included in annual reporting. Estimates are given for the entire fishing grounds, for waters within the IATTC Convention Area, and for waters within the WCPFC Convention Area.

Species of Seabird	Year	Observed Takes	Point Estimates	Standard Error
Total Fishing Grounds				
Albatross, Laysan	2025	4	49	35.83
Albatross, Black-footed	2025	9	123	58.13
Shearwater, Unidentified	2025	0	0	13.67
Shearwater, Sooty	2025	0	0	13.67
Booby, Red-footed	2025	0	0	13.67
Booby, Brown	2025	0	0	13.67
Albatross, Unidentified	2025	0	0	13.67
Gull, Unidentified	2025	0	0	13.67
Within IATTC Convention Area				
Albatross, Laysan	2025	0	0	17.94
Albatross, Black-footed	2025	0	0	17.94
Shearwater, Unidentified	2025	0	0	3.77
Shearwater, Sooty	2025	0	0	3.77
Booby, Red-footed	2025	0	0	3.77
Booby, Brown	2025	0	0	3.77
Albatross, Unidentified	2025	0	0	3.77
Gull, Unidentified	2025	0	0	3.77
Within WCPFC Convention Area				
Albatross, Laysan	2025	4	49	35.83
Albatross, Black-footed	2025	9	123	58.13
Shearwater, Unidentified	2025	0	0	12.37
Shearwater, Sooty	2025	0	0	12.37

Species of Seabird	Year	Observed Takes	Point Estimates	Standard Error
Booby, Red-footed	2025	0	0	12.37
Booby, Brown	2025	0	0	12.37
Albatross, Unidentified	2025	0	0	12.37
Gull, Unidentified	2025	0	0	12.37

Table 3. Number of observed incidental interactions of sea turtles for the Hawai'i shallow-set longline fishery in 2025 when the fishery had 100% observer coverage. Counts are provided for all species with an observed interaction in 2025 and species of concern because of their endangered status and history of past interactions. Counts are given for the entire fishing grounds, for waters within the IATTC Convention Area, and for waters within the WCPFC Convention Area.

Species of Sea Turtle	Year	Observed Takes
Total Fishing Grounds		
Loggerhead	2025	35
Leatherback	2025	9
Olive Ridley	2025	0
Green	2025	0
Unidentified Hardshell	2025	1
Within IATTC Convention Area		
Loggerhead	2025	1
Leatherback	2025	2
Olive Ridley	2025	0
Green	2025	0
Unidentified Hardshell	2025	1
Within WCPFC Convention Area		
Loggerhead	2025	34
Leatherback	2025	7
Olive Ridley	2025	0
Green	2025	0
Unidentified Hardshell	2025	0

Table 4. Number of observed incidental interactions of seabirds for the Hawai'i shallow-set longline fishery in 2025 when the fishery had 100% observer coverage. Counts are provided for selected seabird species and species categories included in annual reporting. Counts are given for the entire fishing grounds, for waters within the IATTC Convention Area, and for waters within the WCPFC Convention Area.

Species of Seabird	Year	Observed Takes
Total Fishing Grounds		
Albatross, Laysan	2025	42
Albatross, Black-footed	2025	83
Shearwater, Unidentified	2025	0
Shearwater, Sooty	2025	1
Booby, Red-footed	2025	0
Booby, Brown	2025	0
Albatross, Unidentified	2025	0
Gull, Unidentified	2025	0
Within IATTC Convention Area		
Albatross, Laysan	2025	0
Albatross, Black-footed	2025	1
Shearwater, Unidentified	2025	0
Shearwater, Sooty	2025	0
Booby, Red-footed	2025	0
Booby, Brown	2025	0
Albatross, Unidentified	2025	0
Gull, Unidentified	2025	0
Within WCPFC Convention Area		
Albatross, Laysan	2025	42
Albatross, Black-footed	2025	82
Shearwater, Unidentified	2025	0
Shearwater, Sooty	2025	1

Species of Seabird	Year	Observed Takes
Booby, Red-footed	2025	0
Booby, Brown	2025	0
Albatross, Unidentified	2025	0
Gull, Unidentified	2025	0

Table 5. Observed and estimated number of bycatch events of seabirds for the Hawai'i longline fisheries, deep-set and shallow-set combined. Observed and estimated bycatch are provided for selected seabird species and species categories included in annual reporting. Values are given for the entire fishing grounds, north of 23°N, between 23°N and 30°S, within the WCPFC Convention Area, within the WCPFC Convention Area north of 23°N, and within the WCPFC Convention Area between 23°N and 30°S.

		Observed Bycatch			Estimated Bycatch		
Species of Seabird	Year	>23°N	23°N–30°S	Total	>23°N	23°N–30°S	Total
Albatross, Laysan	2025	46	0	46	91	0	91
Albatross, Black-footed	2025	90	2	92	172	34	206
Shearwater, Unidentified	2025	0	0	0	0	0	0
Shearwater, Sooty	2025	1	0	1	1	0	1
Booby, Red-footed	2025	0	0	0	0	0	0
Booby, Brown	2025	0	0	0	0	0	0
Albatross, Unidentified	2025	0	0	0	0	0	0
Gull, Unidentified	2025	0	0	0	0	0	0
		Observed Bycatch			Estimated Bycatch		
Species of Seabird	Year	>23°N in WCPFC	23°N–30°S in WCPFC	Total in WCPFC	>23°N in WCPFC	23°N–30°S in WCPFC	Total in WCPFC
Albatross, Laysan	2025	46	0	46	91	0	91
Albatross, Black-footed	2025	89	2	91	171	34	205
Shearwater, Unidentified	2025	0	0	0	0	0	0
Shearwater, Sooty	2025	1	0	1	1	0	1

		Observed Bycatch			Estimated Bycatch		
Species of Seabird	Year	>23°N in WCPFC	23°N–30°S in WCPFC	Total in WCPFC	>23°N in WCPFC	23°N–30°S in WCPFC	Total in WCPFC
Booby, Red-footed	2025	0	0	0	0	0	0
Booby, Brown	2025	0	0	0	0	0	0
Albatross, Unidentified	2025	0	0	0	0	0	0
Gull, Unidentified	2025	0	0	0	0	0	0

Table 6. Number of trips, sets, and hooks recorded in the Hawaii Longline Logbook (Pacific Islands Fisheries Science Center, 2026) and Longline Observer Data System (Pacific Islands Regional Office, 2026) for the Hawai'i deep-set longline fishery in 2025. Total counts are given for the entire fishing grounds, for waters within the IATTC Convention Area, and for waters within the WCPFC Convention Area.

Source of Counts	Year	Trips	Sets	Hooks
Total fishing grounds				
Number recorded in logbooks	2025	1,618	23,059	70,205,212
Number recorded in LODS	2025	114	1,643	4,910,106
Within IATTC Convention Area				
Number recorded in logbooks	2025	314	3,257	9,473,780
Number recorded in LODS	2025	17	157	450,945
Within WCPFC Convention Area				
Number recorded in logbooks	2025	1,523	20,243	60,764,315
Number recorded in LODS	2025	111	1,514	4,458,375

Table 7. Number of trips, sets, and hooks recorded in the Longline Observer Data System (Pacific Islands Regional Office, 2026) for the Hawai'i shallow-set longline fishery in 2025; the fishery had 100% observer coverage. Total counts are given for the entire fishing grounds, for waters within the IATTC Convention Area, and for waters within the WCPFC Convention Area.

Source of Counts	Year	Trips	Sets	Hooks
Total fishing grounds				
Number recorded in LODS	2025	53	887	1,185,888
Within IATTC Convention Area				
Number recorded in LODS	2025	7	94	105,961
Within WCPFC Convention Area				
Number recorded in LODS	2025	52	816	1,079,643

Literature Cited

McCracken, M. L. (2019). *Sampling the Hawaii deep-set longline fishery and point estimators of bycatch* (Technical Memorandum Series, NOAA-TM-NMFS-PIFSC-89). Pacific Islands Fisheries Science Center. <https://doi.org/10.25923/2psa-7s55>.

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